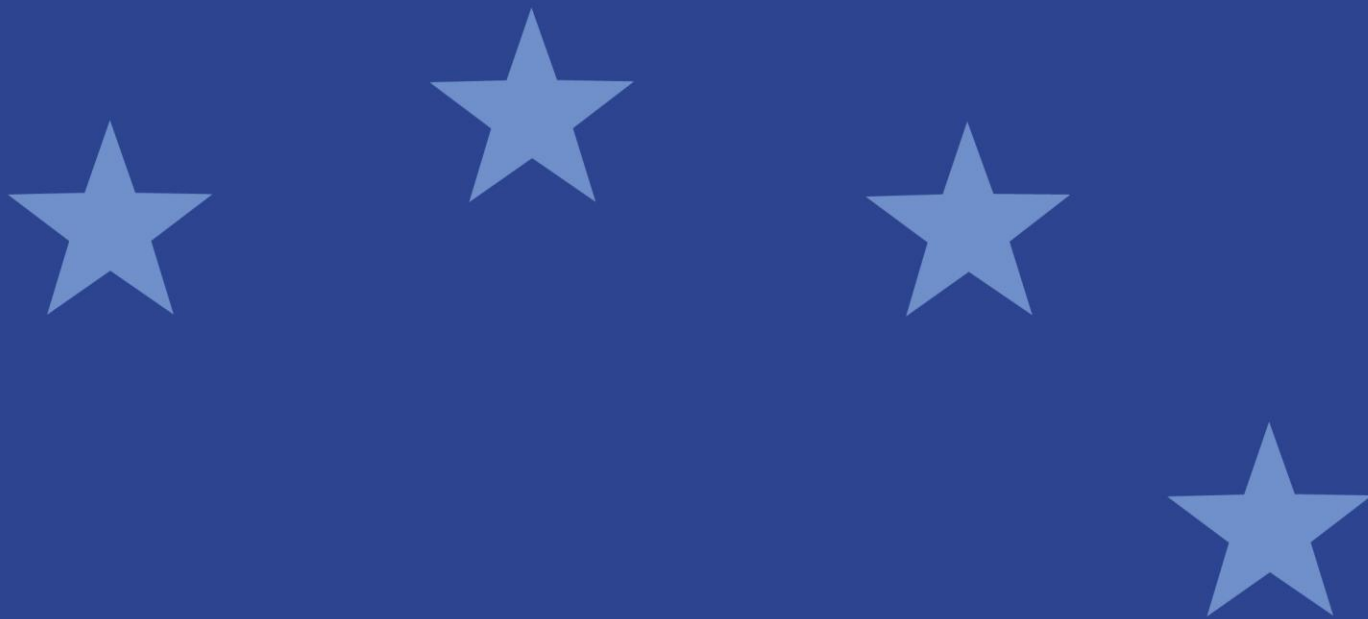




European Securities and
Markets Authority

Discussion Paper

MiFID II/MiFIR



Responding to this paper

The European Securities and Markets Authority (ESMA) invites responses to the specific questions listed in this Discussion Paper.

In order to respond to this paper, please follow the instructions given in the document ‘Reply form for the MiFID/MIFIR Discussion Paper’ also published on the ESMA website ([here](#)).

Please note that the responses must reach us by 1 August 2014.

Who should read this paper?

This document will be of interest to all stakeholders involved in the securities markets. It is primarily of interest to competent authorities and firms that are subject to MiFID II and MiFIR – in particular, investment firms and credit institutions performing investment services and activities. This paper is also important for trade associations and industry bodies, institutional and retail investors and their advisers, and consumer groups, as well as any market participant because the MiFID II and MiFIR requirements seek to implement enhanced provisions to ensure investor protection and the transparency and orderly running of financial markets with potential impacts for anyone engaged in the dealing with or processing of financial instruments.

1.	Overview	12
2.	Investor protection	15
2.1.	Authorisation of investment firms	15
2.2.	Freedom to provide investment services and activities / Establishment of a branch	23
2.3.	Best execution - publication of data related to the quality of execution by trading venues for each financial instrument traded	25
	Annex 2.3.1. Details of proposals regarding data to be provided by venues	34
2.4.	Best execution - publication of data by investment firms	37
	Annex 2.4.1. Detail of proposals relating to data regarding order flow to be provided by investment firms	45
3.	Transparency	47
3.1.	Pre-trade transparency - Equities	47
3.2.	Post-trade transparency - Equities	77
	Annex 3.2.1. Results of the analysis of equity-like instruments	92
3.3.	Systematic Internaliser Regime - Equities	94
3.4.	Trading obligation for shares (Article 23, MiFIR)	100
3.5.	Introduction to the non-equity section and scope of non-equity financial instruments	105
3.6.	Liquid market definition for non-equity financial instruments	116
	The components of the definition of a 'liquid market'	117
	Decision mechanisms for assessing the liquidity criteria	122
	Applying the liquidity criteria to (classes of) financial instruments	123
	Temporary suspension of transparency requirements	128
	Annex 3.6.1. Financial instruments taxonomy and metrics for the calculation of the liquidity criteria (average size of transaction)	132
	Annex 3.6.2. Preliminary analysis for bonds	137
	Annex 3.6.3. COFIA versus IBIA	147
3.7.	Pre-trade transparency requirements for non-equity instruments	148
3.8.	Post-trade transparency requirements for non-equity instruments	155
3.9.	The transparency regime of non-equity large in scale orders and transactions	172
3.10.	Size specific to the instrument	181
3.11.	The Trading Obligation for Derivatives	185
3.12.	Transparency Requirements for the Members of ESCB	194
3.13.	Article 22, MiFIR: Providing information for the purposes of transparency and other calculations	197
4.	Microstructural issues	201
4.1.	Microstructural issues: common elements for Articles 17, 48 and 49 MiFID II	201
4.2.	Organisational requirements for investment firms (Article 17 MiFID II)	213
	Testing of trading systems, algorithms, and strategies	213
	Monitoring and review of trading systems and algorithms	217

	Security of trading systems and algorithms	220
	Pre-trade controls on order entry	222
	Record keeping and co-operation with competent authorities	225
	Organisational requirements for investment firms to prevent market abuse: Monitoring, reporting and review	227
	Direct electronic access	229
	Requirements for investment firms acting as general clearing members	235
4.3.	Organisational requirements for trading venues (Article 48 MiFID II)	240
	Requirements for members or participants of trading venues permitting algorithmic trading through their systems	240
	Trading venues' obligation to monitor the performance and capacity of their systems	242
	Trading venues' capacity	245
	Ensuring resilience of trading systems	247
	Testing the capacity of members or participants to access trading systems	250
	Testing of members' or participants' algorithms to avoid disorderly trading conditions	251
	Pre-trade controls	252
	Controls concerning Direct Electronic Access (DEA)	254
4.4.	Market making strategies, market making agreements and market making schemes	259
	Preliminary point on the purpose of Article 17 and 48 of MiFID II	259
	Article 17 of MiFID II: Circumstances in which an investment firm would be obliged to enter into the market making agreement	260
	Articles 48 and 17 of MiFID II: Minimum market making obligations and in particular: Organisational requirements for investment firms performing a market making strategy; the content of market making agreements; proportion of the trading venue's trading hours that the market making strategy should be active	264
	Exceptional circumstances which contradict the firm's ability to maintain prudent risk management practices	268
	Requirements for trading venues which have a market making scheme in place	270
	Fair and non-discriminatory market making schemes	270
	Article 48 MiFID II: Conditions under which the requirement to have in place a market making scheme is not appropriate	271
4.5.	Order-to-transaction ratio (Article 48 of MiFID II)	274
4.6.	Co-location (Article 48(8) of MiFID II)	279
4.7.	Fee structures (Article 48 (9) of MiFID II)	280
4.8.	Tick sizes (Article 48(6) and Article 49 of MiFID II)	289
	Annex 4.8.1. Technical Annex for Option 1 on Tick Sizes	307
	Annex 4.8.2. Technical Annex for Option 2 on Tick Sizes	319
5.	Data publication and access	326
5.1.	General authorisation and organisational requirements for data reporting services (Article 61(4), MiFID II)	326
	Annex 5.1.1. Extract from CESR Technical Advice to the European Commission in the Context of the MiFID Review – Equity Markets (ref: CESR/10-802)	328
5.2.	Additional requirements for particular types of Data Reporting Services Providers	331
5.3.	Technical arrangements promoting an efficient and consistent dissemination of information – Machine readability Article 64(6), MiFID II	332
5.4.	Consolidated tape providers	334

5.5.	Data disaggregation	337
5.6.	Identification of the investment firm responsible for making public the volume and price transparency of a transaction (Articles 20(3) (c) and 21(5)(c), MiFIR)	340
5.7.	Access to CCPs and trading venues (Articles 35-36, MiFIR)	342
	Grounds for denying access	342
	Conditions under which access is granted	348
	Conditions under which granting access will threaten the smooth and orderly functioning of the markets or would otherwise adversely affect systemic risk	353
	Further specifications for the calculation of notional amount in the context of MiFIR Article 36	354
5.8.	Non- discriminatory access to and obligation to license benchmarks	357
	The information through licensing to be made available to trading venues and CCPs (Article 37(4)(a), MiFIR)	360
	Other conditions under which access is granted, including confidentiality of information (Article 37(3)(b), MiFIR)	366
	Standards guiding how a benchmark may be proven to be new (MiFIR Article 37(3)(c))	370
6.	Requirements applying on and to trading venues	373
6.1.	Admission to Trading	373
6.2.	Suspension and Removal of Financial Instruments from Trading -connection between a derivative and the underlying financial instrument and standards for determining formats and timings of communications and publications	380
7.	Commodity derivatives	386
7.1.	Ancillary Activity	386
7.2.	Position Limits	406
7.3.	Position Reporting	427
8.	Market data reporting	438
8.1.	Obligation to report transactions	438
	What constitutes a transaction and execution of a transaction	439
	Transmission of an order	443
	The fields of the transaction report	444
	Client identification	445
	The “Trader ID” and the “Algo ID”	450
	A designation to identify the applicable waiver	454
	The designation to identify short sales of shares and sovereign debt	456
	The relevant financial instruments to be reported	460
	The application of transaction reporting obligations to branches of investment firms	463
	Data standards and formats for the information to be reported	464
	Annex 8.1.1. Table of fields	467
	Annex 8.1.2. Diagram on client ID	479
8.2.	Obligation to supply financial instrument reference data	480
	Reasons and frequency of updates of instrument reference data	480
	Timelines for submitting information about financial instruments	483
	Fields to be reported as instrument reference data	484

	Rules to establish the Relevant Competent Authority for a given instrument. _____	493
	Annex 8.2.1. Summary Table of Instrument reference data _____	494
8.3.	Obligation to maintain records of orders _____	496
	Scope of ESMA’s mandate _____	497
	Relevant data constituting the characteristics of the order, including those that link an order with the executed transactions _____	501
	The characteristics of the order specified in Article 25(3) _____	506
	Elements relating to the functioning of the order book _____	515
8.4.	Requirement to maintain records of orders for firms engaging in high-frequency algorithmic trading techniques (Art. 17(7) of MIFID II) _____	516
	The content and format of records of placed orders to be stored _____	517
	Length of time for which records must be kept _____	519
8.5.	Synchronisation of business clocks _____	520
9.	Post-trading issues _____	524
9.1.	Obligation to clear derivatives traded on regulated markets and timing of acceptance for clearing (STP) _____	524
9.2.	Indirect Clearing Arrangements _____	532

Acronyms and definitions used

ABCP	Asset-backed commercial paper
ABS	Asset-backed security
ADT	Average daily turnover
AIFMD	Directive 2011/61/EU of the European Parliament and of the Council of 8 June 2011 on Alternative Investment Fund Managers (AIFMs)
A-IOI	Actionable indications of interest
AMP	Accepted market practice
AOR	Automated order routing
APA	Approved publication arrangement
AVT	Average value of transactions
BIC	Business Identifier Code. An 11-character alpha-numerical code that uniquely identifies a financial or non-financial institution. It is defined by ISO code 9362
BIS	Bank for International Settlements
CBO	Collateralised bond obligation
CDO	Collateralised debt obligation
CDS	Credit default swap
CEBS	Committee of European Banking Supervisors
CEIOPS	Committee of European Insurance and Occupational Pensions Supervisors
CESR	Committee of European Securities Regulators
CCP	Central counterparty
CFD	Contract for difference
CFI	Classification of Financial Instruments
CFTC	U.S. Commodities Futures Trading Commission
Class+	Class of OTC derivatives subject to the clearing obligation
CLO	Collateralised loan obligation
CMBS	Commercial mortgage backed security
COFIA	Classes of financial instrument approach
Coreper	The Permanent Representatives Committee or Coreper (Article 240 of the Treaty on the Functioning of the European Union – TFEU)
Commission	European Commission
CP	Consultation Paper



CRD IV	Directive 2013/36/EU of the European Parliament and of the Council of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC
CRR	Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012
CSD	Central securities depository
CSF	Cash settled forward
CT	Consolidated tape
CTP	Consolidated tape provider
DA	Delegated act to be adopted by the European Commission
DEA	Direct electronic access
DP	Discussion Paper
EBA	European Banking Authority
EC	European Commission
ECB	European Central Bank
EEA	European Economic Area
EIOPA	European Insurance and Occupational Pension Authority
EMIR	European Market Infrastructures Regulation – Regulation (EU) 648/2012 of the European Parliament and Council on OTC derivatives, central counterparties and trade repositories – also referred to as “the Regulation”
EOD	End of the day
ESMA	European Securities and Markets Authority
ESMA Regulation	Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC
ETD	Exchange-traded derivative
ETF	Exchange-traded fund
EU	European Union
FC	Financial counterparty
FCD	Financial Collateral Directive – Directive 2002/47/EC of the European Parliament and the Council.
FESCO	Forum of European Securities Commissions
FINRA	Financial Industry Regulatory Authority
FRA	Forward rate agreement



FSB	Financial Stability Board
FX	Foreign exchange
HFT	High frequency trading
ISIN	International Securities Identification Number: a 12-character alpha-numerical code that uniquely identifies a security. It is defined by ISO code 6166
IBIA	Instrument by instrument approach
IOI	Indication of interest
IOSCO	International Organisation of Securities Commissions
IPO	Initial public offering
IRS	Interest rate swap
ISO	International Organization for Standardization
ITS	Implementing Technical Standards
KID	Key information document
KIID	Key investor information document
LEI	Legal entity identifier
LIS	Large in scale
LRIC	Long-run incremental cost
MAD	Directive no. [X] of the European Parliament and of the Council on criminal sanctions for market abuse
MAR	Regulation no. [X] of the European Parliament and of the Council on insider dealing and market manipulation (market abuse)
MiFID or MiFID I	Markets in Financial Instruments Directive – Directive 2004/39/EC of the European Parliament and the Council
MiFID II	Directive no. [X] of the European Parliament and of the Council on markets in financial instruments repealing Directive 2004/39/EC of the European Parliament and of the Council (compromise reached, number to be assigned)
MiFIR	Regulation no. [X] of the European Parliament and of the Council on markets in financial instruments and amending Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories [EMIR]
MO	Market operator
MMF	Money market fund
MS	Member State
MTF	Multilateral trading facility
MTN	Medium-term note



NCA	National Competent Authority
NDF	Non deliverable forward
NTW	Negotiated trade waiver
NFC	Non-financial counterparty
OIS	Overnight index swap
OJ	The Official Journal of the European Union
OTC	Over-the-counter
OTF	Organised trading facility
PRIIPs	Packaged retail and insurance based investment products
Q&A	Questions and Answers
RDS	Reference data system
RM	Regulated market
RMBS	Residential mortgage backed securities
RPW	Reference price waiver
RTS	Regulatory Technical Standards
RTS on OTC Derivatives	Commission Delegated Regulation (EU) No 149/2013
RTS on CCP	Commission Delegated Regulation (EU) No 153/2013
SA	Sponsored access
SFI	Structured finance instrument
SFP	Structured finance product
SI	Systematic internaliser
SME	Small and medium sized enterprise
SME-GM	Small and medium sized enterprise – growth market
SMMSG	Securities and Markets Stakeholder Group
SPV	Special purpose vehicle
TFEU	Treaty on the Functioning of the European Union
TR	Trade repository
UPI	Universal product identifier
TTCA	Title transfer collateral arrangement
TV	Trading venue
UCITS	Directive 2009/65/EC of the European Parliament and of the Council of 13 July 2009, on the coordination of laws, regulations and administrative provisions relating to undertakings for collective investment in transferable securities (UCITS)
UTC	Coordinated universal time



WBS

Whole business securitisation

1. Overview

Reasons for publication

1. On 20 October 2011, the Commission adopted two legislative proposals, a directive and a regulation, for the review of MiFID I. The review is an important and integral part of the reforms adopted at EU level in order to establish a safer, sounder, more transparent and more responsible financial system and to strengthen integration, efficiency and competitiveness of EU financial markets.
2. On 14 January 2014, the European Parliament and the Council reached political agreement on a compromise text.
3. The final legislative texts of the new Markets in Financial Instruments Directive (MiFID II) and the Markets in Financial Instruments Regulation (MiFIR) were approved by the European Parliament on 15 April 2014 and by the European Council on 13 May 2014. They will enter into force on the twentieth day following their publication in the Official Journal of the European Union (estimated in June 2014).
4. MiFID II and MiFIR require ESMA to develop draft Regulatory Technical Standards (RTS) and Implementing Technical Standards (ITS) in several areas for submission to the Commission by, respectively, 12 and 18 months from entry into force of the Directive and the Regulation.
5. According to Articles 10 and 15 of Regulation (EU) No. 1095/2010 of the European Parliament and of the Council establishing ESMA (ESMA Regulation), ESMA must conduct a public consultation before submitting draft RTS and ITS to the Commission.
6. This Discussion Paper (DP) therefore seeks stakeholders' views on key elements of future ESMA technical standards. On the basis of responses and feedback received, ESMA will prepare a subsequent Consultation Paper that will include the draft technical standards for submission to the Commission. Respondents to this consultation are encouraged to provide the relevant information to support their arguments or proposals.

Background

7. MiFID¹ is a cornerstone of the regulation of financial markets in the European Union (EU). It regulates, inter alia, the authorisation and the supervision of investment firms, the requirements for the provision of investment services and activities, the authorisation and supervision of trading venues and the requirements for trading activities of financial instruments across the EU.
8. The directive was implemented through a Commission Implementing Directive for organisational requirements and operating conditions for investment firms, and defined terms for the purpose of MiFID²; and a Commission Regulation for record-keeping obligations for investment firms, transaction reporting, market transparency, admission of financial instruments to trading, and defined terms

¹ Directive 2004/39/EC of the European Parliament and the Council (also referred to in this document as MiFID I).

² Commission Directive 2006/73/EC (also referred to in this document as the MiFID Implementing Directive).

for the purpose of MiFID.³ The full MiFID package has been applicable in the EU since November 2007.

9. ESMA is publishing a package of documents aimed at starting the preparation of its technical standards and at presenting its proposed technical advice for the adoption of delegated acts by the Commission. In particular, the package on which ESMA is consulting includes the following documents:
 - i. a DP on a selected number of more innovative or technically complex topics in order to receive first feedback from stakeholders for the preparation of ESMA technical standards. The DP will be followed by a consultation paper on all the areas for which MiFID II and MiFIR require ESMA to adopt technical standards; and
 - ii. a Consultation Paper (CP) on all the topics on which the Commission has formally requested ESMA on 23 April 2014 to provide technical advice for the adoption of Commission delegated acts.

Cost-benefit analysis

10. MiFID II and MiFIR require ESMA to prepare draft RTS and ITS on a large number of provisions. Articles 10 and 15 of the ESMA Regulation⁴ require ESMA to conduct open public consultations on draft technical standards and to analyse the related potential costs and benefits, where appropriate. Such consultations and analyses shall be proportionate in relation to the scope, nature and impact of the draft technical standards.
11. The MiFID II and MiFIR texts also entail a number of provisions empowering the Commission to adopt delegated acts and implementing acts. ESMA has been requested by the Commission to provide technical advice in order to develop such acts. For ESMA to be able to deliver sound technical advice, ESMA is undertaking an independent data gathering exercise in certain areas. This exercise will be made available to the Commission in order to assist the Commission in conducting its impact assessments for any legal acts it may adopt based on MiFID II and MiFIR empowerments.
12. In the context of the preparation of MiFID II and MiFIR technical standards and technical advice to the Commission, ESMA launched a public tender⁵, in July 2013, and subsequently awarded a contract to an external contractor that will support ESMA in (i) preparing an in-depth impact assessment for the technical standards in order to meet the standards of the Impact Assessment Guidelines of the Commission⁶; and (ii) undertaking a data gathering exercise to support the technical advice to be delivered to the Commission for future legal acts.
13. ESMA, in developing the preparatory work for the MiFID II and MiFIR technical standards and technical advice, is also taking into consideration the impact assessment accompanying the Commission's proposal of MiFID II and MiFIR.⁷ ESMA has also included specific questions in the DP, aimed at gathering data from stakeholders on new or more sensitive aspects dealt with in the proposed tech-

³ Commission Regulation 1287/2006 (also referred to in this document as the MiFID Implementing Regulation).

⁴ Regulation (EU) No 1095/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Securities and Markets Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/77/EC.

⁵ Invitation to tender n° OJ/16/07/2013 – PROC/2013/005.

⁶ SEC(2009) 92.

⁷ SEC(2011) 1226 final.



nical advice to the Commission. Respondents are invited to provide ESMA with any available data about expected impacts of the proposed measures in any areas on which they would like to draw ESMA's attention.

Contents

14. This DP covers the topics on which ESMA is empowered to draft technical standards, namely: investor protection; transparency, data publication, microstructural issues, data publication and access, requirements applying on and to trading venues, commodity derivatives and market data reporting.

Next steps

15. ESMA will consider the responses it receives to this DP, and will publish a subsequent Consultation Paper that will include the draft technical standards in the coming months.
16. ESMA will hold open hearings on the published DP and CP. The hearings will take place on 7 and 8 July 2014 in Paris and registration for the hearings will be available in the relevant section of the ESMA website in due course.

2. Investor protection

2.1. Authorisation of investment firms

Background/Mandate/Empowerment

1. Articles 7(4) and 7(5) of MiFID II require ESMA to develop technical standards in relation to:
 - i. the procedures for granting and refusing requests for the authorisation of investment firms;
 - ii. the information to be provided to the home state competent authorities; and
 - iii. consultation prior to authorisation.

Article 7(4), MiFID II

ESMA shall develop draft regulatory technical standards to specify:

- (a) the information to be provided to the competent authorities under Article 7(2) including the programme of operations;*
- (b) the requirements applicable to the management of investment firms under Article 9(6) and the information for the notifications under Article 9(5);*
- (c) the requirements applicable to shareholders and members with qualifying holdings, as well as obstacles which may prevent effective exercise of the supervisory functions of the competent authority, under Article 10(1) and (2).*

ESMA shall submit those draft regulatory technical standards to the Commission by [...].

Article 7(5), MiFID II

ESMA shall develop draft implementing technical standards to determine standard forms, templates and procedures for the notification or provision of information provided for in Article 7(2) and in Article 9(5).

ESMA shall submit those draft regulatory technical standards to the Commission by [...].

2. ESMA considers that the CESR work on the MiFID passport (which includes recommendations⁸, a Consultation Paper⁹ and a feedback statement¹⁰) is useful reference material in this area, especially regarding the harmonisation of procedures and the enhancement of cooperation between NCAs.
3. In addition, with regard to the documentation to be provided by the investment firm at application, ESMA considers that useful reference can be made to the following work:

⁸ CESR/07-337b.

⁹ CESR/06-669.

¹⁰ CESR/07-318.

- i. Forum of European Securities Commissions (FESCO) European standards on fitness and propriety to provide investment services;¹¹
 - ii. ESMA draft RTS on information requirements for assessment of acquisitions and increases in holdings in investment firms;¹²
 - iii. Committee of European Banking Supervisors (CEBS), Committee of European Securities Regulators (CESR) and Committee of European Insurance and Occupational Pensions (CEIOPS) Guidelines for the prudential assessment of acquisitions and increases in holdings in the financial sector required by Directive 2007/44/EC;¹³
 - iv. CESR Report Mapping on MiFID,¹⁴ and
 - v. European Banking Authority (EBA) Guidelines on the assessment of the suitability of members of the management body and key function holders.¹⁵
4. Nevertheless, ESMA recognises that it is preferable to make adjustments to the above mentioned work in order to take into account:
- i. MiFID II developments requiring information in additional areas, including, for instance, for tied agents, arrangements for algorithmic/high frequency trading, and new execution venues (Organised Trading Facilities (OTFs)); and
 - ii. different national law when it comes to the type of documents, evidence, etc.

Q1: Do you agree that the existing work/standards set out in points 2 and 3 above provide a valid basis on which to develop implementing measures in respect of the authorisation of investment firms?

Q2: What areas of these existing standards do you consider require adjustment, and in what way should they be adjusted?

Analysis

5. One challenge of this empowerment is to develop a harmonised list of information to be provided for the authorisation of an investment firm, notwithstanding differences in national legislation in a number of areas (including matters of corporate law).
6. ESMA considers that the information to be provided by the investment firm to Home State NCAs should comprise the following, and notes that the information should take account of the firm's use of tied agents and branches, where relevant:

General information

¹¹ 99-FESCO-A.

¹² ESMA/2013/1940.

¹³ CEBS/2008/214; CEIOPS-3L3-19/08; CESR/08-543b.

¹⁴ CESR/08-220.

¹⁵ EBA/GL/2012/06.

- i. Name of the investment firm (including its legal name and any other trading name to be used by it); legal structure (including information on whether the investment firm will be a legal person or, where allowed by national legislation, a natural person), address of the head office and, for existing companies, registered office; contact details; its national identification number, where available; and, where relevant, the following information on domestic branches and tied agents:
 - a. for domestic branches: information on where the branches will operate; and
 - b. for tied agents: the firm should inform the Home State NCAs of its intention to use tied agents.

Constituting documents

- i. Corporate documents and evidence of registration with the Register of Companies (e.g. authenticated copy of the instrument of incorporation, by-laws and the articles of association; copy of registration of the company in the Register of Companies), where applicable.

Information on the capital

- i. Information and, when available, evidence on the sources of capital available to the firm. The information shall include:
 - a. details on the use of private financial resources including the origin and availability of these funds;
 - b. details on access to capital sources and financial markets including details of financial instruments issued or to be issued;
 - c. any relevant agreements and contracts regarding the capital raised;
 - d. information on the use or expected use of borrowed funds including the name of relevant lenders and details of the facilities granted or expected to be granted, including maturities, terms, pledges and guarantees, along with information on the origin of the borrowed funds (or funds expected to be borrowed) where the lender is not a supervised financial institution;
 - e. details on the means of transferring financial resources to the firm including the network used to transfer such funds; and
 - f. any relevant documentary support to give evidence to the financial supervisor that no money laundering or terrorist financing is attempted (e.g. description of the money flow).

At time of application, it could be that newly established entities may only be in a position to provide information on how capital will be raised and the types and amount of capital that will be raised. However, evidence of paid-up share capital and other types of capital raised must be provided before authorisation is granted. Such evidence may include copies of relevant capital instruments and corresponding bank statements. Information on types of capital raised should refer, where relevant, to the types of capital specified under Regulation

(EU) No 575/2013 (Capital Requirements Regulation or 'CRR'), specifically whether the capital comprises Common Equity Tier 1 items¹⁶, Additional Tier 1 items¹⁷ or Tier 2 items.¹⁸

Information on shareholders

- i. List of persons with a direct holding or indirect qualifying holding in the applicant firm, with an indication of the relevant amount. For indirect holdings, the name of the person through which the stake is held and the name of the final holder.
- ii. Additional documentation (including statements) relating to the suitability of any person with a qualifying holding (direct or indirect) in the applicant firm. Where the holder of a qualifying holding is not a natural person, the documentation shall also relate to all members of the management body and the general manager, or any other person performing equivalent duties. The information to be provided shall be consistent with the information required under ESMA draft RTS on information requirements for assessment of acquisitions and increases in holdings in investment firms.¹⁹
- iii. For shareholders that are companies that are members of a group, an organisational chart of the group indicating the main activities of each firm within the group, identification of any regulated entities within the group and the names of the relevant supervisory authorities as well as the relationship between the financial entities of the group and other non-financial group entities.

Information on the management body and persons directing the business

- i. Personal details and curricula vitae of the members of the management body and persons effectively directing the business and their related powers and any proxies. The investment firm will provide all written information necessary to assess their suitability including the following:
 - a. personal details including the person's name, date and place of birth, personal national identification number, where available, address and contact details;
 - b. the position for which the person is/will be appointed;
 - c. a detailed curriculum vitae stating relevant education and professional training, professional experience, including the names of all organisations for which the person has worked and nature and duration of the functions performed, in particular for any activities within the scope of the position sought. For positions held in the last 10 years, when describing these activities, the person should specify his or her delegated powers, internal decision-making powers and the areas of operations under his or her control, including the number of employees. If the curriculum vitae includes honorary activities, including management body representation, this should be stated;
 - d. documentation relating to person's reputation and experience (e.g. list of reference persons including contact information, letters of recommendation);

¹⁶ As specified in Article 26 CRR.

¹⁷ As specified in Article 51 CRR.

¹⁸ As specified in Article 62 CRR.

¹⁹ ESMA/2013/1940.

- e. criminal records and information on criminal investigations and proceedings, relevant civil and administrative cases, and disciplinary actions (including disqualification as a company director, bankruptcy, insolvency and similar procedures), notably through an official certificate (if available within the relevant Member State or third country), or through another equivalent document;
 - f. information on:
 - open investigations, enforcement proceedings, or sanctions and enforcement proceedings that resulted in a sanction or another enforcement decision against the person;
 - refusal of registration, authorisation, membership or licence to carry out a trade, business or profession; or the withdrawal, revocation or termination of such a registration, authorisation, membership or licence; or expulsion by a regulatory or government body or by a professional body or association; and
 - dismissal from employment or a position of trust, fiduciary relationship, or similar situation;
 - g. whether an assessment of reputation as an acquirer or as a person who directs the business has already been conducted by another NCA (including the identity of that authority and evidence of the outcome of this assessment);
 - h. description of any financial (e.g. loans, shareholdings, guarantees and pledges) and non-financial interests or relationships (e.g. close relations, such as a spouse, registered partner, cohabitant, child, parent or other relation with whom the person shares living accommodations) of the person and his/her close relatives to members of the management body and key function holders in the same institution, the parent institution and subsidiaries and shareholders;
 - i. details of the applicant firm's suitability assessment results, for existing companies;
 - j. the minimum time that will be devoted to the performance of the person's functions within the firm (annual and monthly indications);
 - k. human and financial resources devoted to the induction and training of the members (annual indications); and
 - l. the number of executive and non-executive directorships currently held by the person.
- ii. The headcount of the internal (management and control) bodies, if known.

Information on the activities and financial information

- i. List of investment services and activities for which authorisation is required as well as ancillary services and financial instruments, and whether customers' assets and/or money will be held (even on a temporary basis or without bearing risks).

- ii. Forecast information at an individual and, where applicable, at consolidated group and sub-consolidated levels, including:
 - a. forecast accounting plans (with a breakdown by investment/ancillary service and other activities) for the first three business years including :
 - forecast balance sheets;
 - forecast profit and loss accounts or income statements; and
 - forecast cash flow statements, if applicable;
 - b. planning assumptions for the above forecasts as well as explanations of the figures (i.e. expected number and type of customers, expected volume of transactions/orders, expected assets under management); and
 - c. where applicable, forecast calculations of the firm's capital requirements under the CRR and forecast solvency ratio for the first year.
- iii. In addition, for companies already active, statutory financial statements, at an individual and, where applicable, at consolidated group and sub-consolidated levels for the last three financial periods, approved, where the financial statements are audited, by the external auditor, including:
 - a. the balance sheet;
 - b. the profit and loss accounts or income statement;
 - c. cash flow statements, if applicable; and
 - d. the annual reports and financial annexes and any other documents registered with the relevant registry or authority in the particular territory relevant to the company financial statements and, where applicable, a report by the company's auditor of the last three years or since the beginning of the activity.
- iv. An analysis of the perimeter of consolidated supervision under the CRR. Specifically this should include which group entities would be included in the scope of consolidated supervision requirements post-authorisation and at which levels within the group these requirements would apply on a full or sub-consolidated basis.

Information on the organisation

- i. A programme of initial operations for the next three years, drafted according to the provisions and standard template of the implementing technical standard to be drafted under Article 7(5) of MiFID II. This should include information on planned regulated and unregulated activities.
- ii. Details of the firm's auditors, when available at time of application for authorisation.
- iii. Information on the organisational structure and internal control systems of the company, comprising: (i) the personal details of the heads of internal functions (management and supervisory), including a detailed curriculum vitae, stating relevant education and professional training, pro-

fessional experience; (ii) the description of the resources (human, technical, legal resources) allocated to the various planned activities; (iii) in relation to holding client assets, the information drafted according to the provisions and template of the implementing technical standard to be drafted under Article 7(5) of MiFID II, specifying, inter alia, any client asset safeguarding arrangements (in particular, where assets are held in a custodian, the name of the custodian, and relevant contracts); (iv) and explanation of how the firm will satisfy its prudential and conduct requirements.

- iv. Statement of the intention of the investment firm to be a member of the investor compensation scheme of the Home Member State or evidence of membership to the investor compensation scheme, where possible.
 - v. List of the outsourced functions, services or activities (or those intended to be outsourced); list of the contracts concluded or foreseen with external providers and resources (in particular, human, technical, legal resources, and the internal control system) allocated to the control of the outsourced functions, services or activities.
 - vi. Information about the investment firm's complaints-handling procedure.
 - vii. Measures to detect conflicts of interest that arise in the course of providing investment and ancillary services and a description of product governance arrangements.
 - viii. Description of systems for monitoring the activities of the firm, including back-up systems, where available, and systems and risk controls where the firm wishes to engage in algorithmic trading and/or provide direct electronic access.
 - ix. Procedures relating to electronic data processing (about the recorded information that is sufficient to reconstruct the details of the order and the executed transaction).
 - x. The compliance, internal control, and, where relevant, risk management systems (a monitoring system, internal audits and the advice and assistance functions). This may be provided through a set of internal policies or procedures and should take into account all aspects of the program of operations.
 - xi. Internal policies and/or procedures for: (a) classifying their clients into the categories of retail clients, professional clients and eligible counterparties; (b) best execution; (c) reporting to clients.
 - xii. Procedures relating to personal transactions of the relevant persons.
 - xiii. Systems for assessing and managing the risks of money laundering and terrorist financing.
 - xiv. Information on business continuity plans, including systems and human resources (i.e. key personnel).
 - xv. Record management procedures, record-keeping and record retention policies.
7. The information to be provided to Home State NCAs as detailed above should refer to both the head office of the firm and its branches and tied agents in the Home Member State.

8. In developing the technical standards on the list of information required from applicant investment firms and on the consultation process between NCAs, ESMA aims to limit the practice of 'jurisdiction shopping' for the purpose of regulatory arbitrage, as per Recital 46 of MiFID II (Recital 22 of MiFID I).
9. To this end, the programme of operations should:
 - (i) provide detailed information on the geographical distribution and activities to be carried out by the investment firm in the EEA, in order to enable NCAs to assess, after consultation with other relevant NCAs and ESMA (where appropriate), the extent to which activities will be carried out in each Member State; and
 - (ii) assess whether the investment firm may have opted for the regulatory system of one Member State for the purpose of evading the stricter standards in force in another Member State within the territory of which it intends to carry on or does carry on the greater part of its activities. Relevant information in the programme of operations should include:
 - i. the domicile of prospective customers/targeted investors (in order to assess whether they are mostly present in another Member State);
 - ii. marketing and promotional activity and arrangements, including languages of the offering and promotional documents; identification of the Member States where advertisements are most visible and frequent; type of promotional documents (in order to assess where effective marketing will be mostly developed); and
 - iii. identity of direct marketers, financial investment advisers and distributors, geographical localisation of their activity.

Q3: Do you consider that the list of information set out in point 6 should be provided to Home State NCAs? If not, what other information should ESMA consider?

Q4: Are there any other elements which may help to assess whether the main activities of an applicant investment firm is not in the territory where the application is made?

Q5: How much would one-off costs incurred during the authorisation process increase, compared to current practices, in order to meet the requirements suggested in this section?

Q6: Are there any particular items of information suggested above that would take significant time or cost to produce and if so, do you have alternative suggestions that would reduce the time/cost for firms yet provide the same assurance to NCAs?

2.2. Freedom to provide investment services and activities / Establishment of a branch

Background/Mandate/Empowerment

1. Articles 34(8) and 35(11) of MiFID II require ESMA to develop technical standards in relation to the notification of information to be provided by investment firms and credit institutions exercising their rights under the freedom to provide services, or the freedom of establishment.

Article 34(8) MiFID II

ESMA shall develop draft regulatory technical standards to specify the information to be notified in accordance with paragraphs 2, 4, 5 and 7.

ESMA shall submit those draft regulatory technical standards to the Commission by [...].

Article 35(11) MiFID II

ESMA shall develop draft regulatory technical standards to specify the information to be notified in accordance with paragraphs 2, 4, 7 and 10.

ESMA shall submit those draft regulatory technical standards to the Commission by [...].

Analysis

2. MiFID II broadly reflects the existing provisions and procedures for passporting set out in MiFID. There are, however, two notable differences:
 - i. the requirement under Article 34(2)(b) for investment firms to communicate to the home state NCA the identity of any tied agents it proposes to use under the freedom to provide services; and
 - ii. Annex I of MiFID II includes the new activity (9) of Operation of Organised Trading Facilities (OTFs).
3. Given the relative consistency between MiFID II and MiFID I on these topics, ESMA considers that the development of technical standards in this area should draw significantly on existing CESR work. Specifically, ESMA considers that the CESR work on the passport under MiFID (which includes: a recommendation²⁰, a Consultation Paper²¹ and a feedback statement²²) should be considered when developing proposals to consolidate existing practices into binding technical standards. However, as for the previous section of this Discussion Paper on 'Authorisation of investment services', ESMA considers that adjustments to existing standards will be necessary.

²⁰ CESR/07-337b.

²¹ CESR/06-669.

²² CESR/07-318.



Q7: Do you agree that development of technical standards required under Articles 34 and 35 of MiFID II should be based on the existing standards and forms contained in the CESR Protocol on MiFID Notifications (CESR/07-317c)? If not, what are the specific areas in the existing CESR standards requiring review and adjustment?

2.3. Best execution - publication of data related to the quality of execution by trading venues for each financial instrument traded

Background/Mandate/Empowerment

Article 27(10)(a), MiFID II

ESMA shall develop draft regulatory technical standards to determine:

(a) the specific content, the format and the periodicity of data relating to the quality of execution to be published in accordance with paragraph 3, taking into account the type of execution venue and the type of financial instrument concerned;

[...]

ESMA shall submit those draft regulatory technical standards to the Commission by [...]

Power is delegated to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with Articles 10 to 14 of Regulation (EU) No 1095/2010.

Analysis

1. MiFID II requires that venues publish periodic reports that include details about price, cost, speed and likelihood of execution for individual financial instruments.²³ The mandate to ESMA for developing RTS further specifies that the reports should take into account the type of execution venue and the type of financial instruments concerned. The reporting requirement applies to execution venues²⁴ or to trading venues and systematic internalisers.²⁵
2. ESMA considers that if the intention is to require standardised reporting from all venues, it should also apply to market makers²⁶ that execute directly with clients (or their agents) rather than using a trading venue central order book.
3. MiFID II is clear that all execution quality data is to be provided by venues in respect of individual financial instruments, and that all types of financial instruments are subject to best execution. Nevertheless, ESMA considers that in developing execution quality data it may be appropriate to prioritise trading in certain types of instruments.

²³ Set out in Article 27(3).

²⁴ Execution venue means a Regulated Market, an Multilateral Trading Facility (MTF) an Organised Trading Facility (OTF), a systematic internaliser, or a market maker or other liquidity provider or an entity that performs a similar function in a third country to the functions performed by any of the foregoing.

²⁵ The scope of reporting on execution quality is set out in Article 27(3) of MiFID II as being, “for instruments subject to the trading obligation in Articles 23 and 28 of MiFIR each trading venue and systematic internaliser and for other instruments each execution venue...”

²⁶ As defined by MiFID I a market maker is “a person who holds himself out on the financial markets on a continuous basis as being willing to deal on own account by buying and selling financial instruments against his proprietary capital at prices defined by him” Since market makers fulfil a role in price discovery and can fulfil some of the functions of execution venues, particularly for retail clients in some market structures, it is appropriate to apply the execution quality reporting obligation to them.

4. Financial instruments, and the market microstructures in which they are traded, have different characteristics, which may lead to more significant implementation challenges for some instruments over others where liquidity or price transparency is low. ESMA is mindful of the need to minimise the operational risk associated with implementation by prioritising development work for some instruments over others.
5. In addition, and in order to be proportionate, ESMA recognises that it may be appropriate to specify a minimum level of trading activity in a particular instrument before venues are required to report on their execution quality. Conversely, small or specialist trading venues may have a low volume of trading in a particular instrument (because of that instrument's illiquidity or a limited free float), which nevertheless constitutes a significant percentage of the overall trading in that instrument.
6. Exempting trading in such circumstances may create the unintended consequence that statistics on execution quality are not available in respect of illiquid stocks traded on smaller venues²⁷. Furthermore, ESMA is considering whether this approach would be consistent with the MiFID II text.
7. While MiFID II specifies that venues will be required to report on execution quality data on at least an annual basis, it also requires ESMA to determine whether more frequent publication is necessary. Establishing the processes required for publishing execution quality data will involve an initial implementation cost, and increased frequency of publication will also increase the marginal cost faced by venues.
8. Nevertheless, more frequent data publication will present significant benefits to market participants by improving the relevance and accuracy of standardised reporting, better capturing changes in market structure (including new entrants) or by providing more data to support trend analysis. Additionally, investors should benefit from increased transparency in respect of the execution quality of venues.
9. As the published data should allow investment firms to determine the best way to execute client orders, ESMA considers that this data should be provided by all the execution venues, including Regulated Markets, MTFs, OTFs, systematic internalisers and market makers.

²⁷ The United States has adopted the approach of exempting from standardised reporting any security that did not meet a minimum threshold, for example where trading did not average more than five reported transactions per day for each of the preceding six months. It also has an exemption for any venue that reported fewer than 200 transactions per day on average over the preceding six-month period where the majority of such transactions are in securities that are not components of the major equity indices.

- Q8: Do you agree data should be provided by all the execution venues as set out in footnote 24? If not, please state why not.**
- Q9: If you think that the different types of venues should not publish exactly the same data, please specify how the data should be adapted in each case, and the reasons for each adjustment.**
- Q10: Should the data publication obligation apply to every financial instrument traded on the execution venue? Alternatively, should there be a minimum threshold of activity and, if so, how should it be defined (for example, frequency of trades, number of trades, turnover etc.)?**
- Q11: How often should all execution data be published by trading venues? Is the minimum requirement specified in MiFID II sufficient, or should this frequency be increased? Is it reasonable or beneficial to require publication on a monthly basis and is it possible to reliably estimate the marginal cost of increased frequency?**
- Q12: Please provide an estimate of the cost of the necessary IT development for the production and the publication of such reporting.**

General principles

10. ESMA considers that, in order to be most useful to market participants, the data to be provided by venues should be:
- i. precisely defined;
 - ii. published in some standardised format and be comparable between venues; and
 - iii. appropriate for investment firms already using the venue and for those considering doing so.
11. In considering these three general principles, ESMA recognises that there are several existing constraints which are relevant to each. First, precise definitions must take into account the full range of instruments, market microstructures and potential measures of execution quality which are covered by the best execution obligation. Secondly, the standardisation of format (and, equally importantly, of timing) which would support full comparability between venues is required, at least initially, without a consolidated tape. Thirdly, a balance is required between prescriptive data obligations or benchmarks and those which facilitate individual analysis by market participants acting on their own initiative using proprietary methodologies.
12. Respondents to CESR's 2009 questionnaire on Best Execution²⁸ noted several difficulties in monitoring execution quality. These difficulties included: a lack of transparency or consistency of data; inconsistency in price improvement calculations; a lack of a standardised cross-market price benchmark (a European Best Bid and Offer, EBBO); and a lack of Volume Weighted Average Price (VWAP). One of the principal aims of this Discussion Paper is to address these difficulties by evaluating the options for data harmonisation, the range of available metrics and the benefits of aligning the monitoring of best execution with other standardised reporting obligations.

²⁸ http://www.esma.europa.eu/system/files/10_1415.pdf

13. US cash equities and options markets have been suggested as comparators for standardised reporting of execution quality by European venues. A summary of US venue reporting obligations under Securities and Exchange Commission Rule 605 is included in the Annex to this chapter. However, the scope of the venue reporting obligation will be far broader in Europe than the National Market System stocks covered in the US, and this poses additional challenges for European trading venues.
14. In addition, the MiFID standard of best execution is based on more than just the price at which an order is executed, and also requires an assessment of costs, speed and likelihood of execution. Market structures also introduce additional variables, and bespoke OTC instruments may have very different measurements of execution quality compared to cash equities traded through the electronic order book of a Regulated Market. This wider range of eligible instruments and market structures covered increases the complexity of developing a European framework for standardised reporting of execution quality.
15. Furthermore, the lack of a standardised European price benchmark (EBBO) is another significant difference between the two market structures (the US and Europe) and imposes a limitation on the ability of venues to compare their execution quality. For example, venues that publish data on execution quality in relation to using their own internal Venue Best Bid and Offer (VBBO) would not provide sufficient information to assess the relative performance of different venues. An inability to compare directly between two execution venues would reduce the benefit of the standardised reporting.
16. One potential solution to this limitation would be to require each venue to publish its VBBO in a particular security or basket of securities at the same time and using standardised volume ranges. Potential risks in doing so include the inflexibility of such an approach, the limitation of comparable data being available only at infrequent intervals and the potential that execution quality could be manipulated in advance of known dates and times. These risks would be particularly apparent if an annual reporting cycle were to be adopted, in which case the data would quickly become outdated.
17. Another separate measure that could be taken into consideration is the execution volume, which would allow an independent calculation of market share. However, this measure would not enable comparisons between venues on the basis of price. Venue market share could be used as a rough proxy for execution quality by indicating available liquidity on a particular venue (but ESMA notes that there is a very limited case for the inference of liquidity and execution quality from volume and market share alone).
18. There are several measures of venue execution quality that are currently used either commercially or by regulators and these would potentially become available as standardised data if venue execution quality reporting could be harmonised to allow the reconstruction of an EBBO on a periodic basis. The MiFID best execution standard will continue to be multi-dimensional and not just based on price, meaning that other metrics will always be necessary when assessing best execution.
19. ESMA does not suggest that these price-based metrics are necessarily appropriate or feasible given the lack of consolidated pre-trade transparency data in Europe, but they can provide an indication of what might be possible in the event that some degree of data consolidation were to be achieved. The risk of not attempting to compare price data between execution venues is that there is no effective way to measure one of the core dimensions of best execution (i.e. price).
20. ESMA considers that the following metrics that are used in the US where a consolidated best bid and offer is available could be useful measures of consolidated data:

- i. effective and realised spread: The average effective spread summarises the extent to which market and marketable limit orders receive price improvement when measured against the mid-point of the consolidated best bid and offer (BBO). This is a measure of the liquidity premium paid, or difference between the price expected at the time of the order being submitted and the price actually paid. The average realised spread measures the extent to which an order venue provides liquidity in a volatile or fast moving market and also measures the extent of informed order flow. It is calculated with reference to the midpoint of the consolidated BBO five minutes after the execution; and
 - ii. price improvement per instrument: This is determined by calculating the difference between the trade price and the BBO for each execution in order to arrive at a net price improvement value for each trade. These values are then volume averaged to arrive at the price improvement per instrument for each venue.
21. In order to enable investment firms to compare the market data of different trading venues when establishing their best execution policy, ESMA considers that trading venues should publish the data relating to the quality of execution with regard to a uniform reference period, with a minimum of specific reporting details and in a compatible format of data based on a homogeneous calculation method.

Q13: Do you agree that trading venues should publish the data relating to the quality of execution with regard to a uniform reference period, with a minimum of specific reporting details and in a compatible format of data based on a homogeneous calculation method? If not, please state why.

Q14: Is the volume of orders received and executed a good indicator for investment firms to compare execution venues? Would the VBBO in a single stock published at the same time also be a good indicator by facilitating the creation of a periodic European price benchmark? Are there other indicators to be considered?

Q15: The venue execution quality reporting obligation is intended to apply to all MiFID instruments. Is this feasible and what differences in approach will be required for different instrument types?

Q16: Do you consider that this requirement will generate any additional cost? If yes, could you specify in which areas and provide an estimation of these costs?

Execution quality metrics

22. MiFID I specifies four dimensions of execution quality (price, costs, speed and likelihood of execution) that firms need to meet as part of their best execution obligations. Each presents its own specific challenges:
- i. **Price:** The issues related to the availability of a standardised European benchmark are discussed in detail earlier in this chapter. Other issues include the need to ensure that price comparisons reflect different order sizes; standardised measurement points; and the potential need to standardise calculation methodologies for common price benchmarks;
 - ii. **Costs:** This factor is intended to capture the total trading costs faced by the client and is particularly important for retail clients for whom investment firms are required to assess execution quality in terms of total consideration (all costs including instrument price). A full list of execution costs that are capable of disclosure by venues on a standardised basis is not currently specified.

Potential transaction costs include venue fees, regulatory levies and taxes. But other costs relating to clearing and settlement services may be more difficult for a venue to report where market infrastructures are not vertically integrated and the trading venue does not control all of the costs faced by clients;

- iii. **Speed:** This measure should relate to the time interval between an order being received by a trading venue and its execution, since only the venue's performance is being measured (and not the capabilities of other parties in the execution chain). A standard definition, which accounts for different market structures, is needed for each measurement point. In addition, order type is directly relevant to speed, since there is a need to distinguish marketable orders from those which rest on the order book and are not immediately executed; and
 - iv. **Likelihood:** This measure could refer either to the risk of failed trades on different venues or to the probability that orders will be filled within a given time period. These measures would depend on both order type and market structure since, for example, a market order entered through an electronic order book would automatically be filled, while a limit order would not be filled unless it became marketable. Other controls may be required to prevent distortion of data. Examples include: the need to account for orders that were cancelled or amended; or for limit orders that are entered well away from the VBBO with little expectation of successful execution.
23. Because the reporting by execution venues is to be provided at the level of individual financial instruments, ESMA is mindful of the potential volume of data to be disclosed by venues. This could be a significant issue if venues were to be required to publish data on every execution in a particular period, rather than an alternative approach based on publishing only averages (based on standardised volume or transaction value ranges).
24. However, in order to allow participants to interrogate this data and make meaningful comparisons, sufficient information on each financial instrument must be provided. Potential additional fields or metrics that may be relevant to execution quality disclosure are summarised below.
- i. The relevance of measures such as speed and likelihood of execution are determined in part by order type. For example, a market order that is immediately matched by a venue will be executed as soon as it is received and processed by a venue. Conversely, a limit order will rest on the book until it becomes marketable, is cancelled or amended. In this case, a measure of speed will not be appropriate, but whether the order is filled may still be an indicator of available liquidity. Even in this case the indicator is, at best, an approximation of liquidity, since a limit order may be entered well away from the best bid or offer with little expectation that it will ever become marketable.

Order type is also relevant to price benchmarking since, while limit orders can be benchmarked against the quote at time of execution, marketable orders should be measured against the quote at the time of their receipt by the venue.

- ii. Order size is directly relevant to several dimensions of execution quality but most obviously to price and likelihood of execution. For example, a simple metric that captures price 'at touch' for a small order size would not be a fair comparator for large single orders, which require greater available liquidity and are likely to be executed at a less favourable price. The role of order size explains why large orders are often worked by being 'clipped' into smaller orders as part of an order execution strategy.

There are alternative available approaches to ensuring that orders of different sizes are rendered comparable. One is to split trades into ranges by volume or by value so that only those trades that are within the same range are compared with one another. A second approach to capturing order size would be to compare the depth-weighted spread of different venues. A summary of these approaches is provided in Section C of the Annex to this chapter.

- iii. The number of orders executed provides the basis for calculating the ratio of orders executed to orders cancelled.
 - iv. The number of orders cancelled may be another indicator of available liquidity on a venue (if orders were cancelled because they were left unfilled) or, alternatively, of the presence of high frequency trading strategies that may influence investment firm or client selection of a venue. The time period for order cancellation would need to match the basis for reporting the number of orders executed.
25. Responses to CESR's 2009 questionnaire on Best Execution identified a wide variety of other factors used by respondents to choose a new execution venue.²⁹ Clearing and settlement services are also taken into consideration, including any credit risk from the absence of central clearing.
 26. In addition, operational risks and venue resilience were identified as potential factors (for example, in the availability of circuit breakers that operate in periods of market stress). ESMA recognises that these qualitative factors are not exhaustive, but also that there is a limit to the information that it may be appropriate to require in a standardised report.
 27. Further to your answer to Question 13, and having considered the above execution quality data, please consider the following questions on the scope of the execution quality data publication obligation on execution venues.

²⁹ http://www.esma.europa.eu/system/files/10_1415.pdf.

- Q17:** If available liquidity and execution quality are a function of order size, is it appropriate to split trades into ranges so that they are comparable? How should they be defined (for example, as a percentage of the average trading size of the financial instrument on the execution venue; fixed ranges by volume or value; or in another manner)?
- Q18:** Do you agree that a benchmark price is needed to evaluate execution quality? Would a depth-weighted benchmark that relates in size to the executed order be appropriate or, if not, could you provide alternative suggestions together with justification?
- Q19:** What kind of cost should be reported (e.g. regulatory levies, taxes, mandatory clearing fees) and how should this data be presented to enable recipients to assess the total consideration of transactions?
- Q20:** What would be the most appropriate way to measure the likelihood of execution in order to get useful data? Would it be a good indicator for likelihood of execution to measure the percentage of orders not executed at the end of the applicable trading period (for example the end of each trading day)? Should the modification of an order be taken into consideration?
- Q21:** What would be the most appropriate way to measure the speed of execution in order to get useful data?
- Q22:** Are there other criteria (qualitative or quantitative) that are particularly relevant (e.g. market structures providing for a guarantee of settlement of the trades vs OTC deals; robustness of the market infrastructure due to the existence of circuit breakers)?
- Q23:** Is data on orders cancelled useful and if so, on what time basis should it be computed (e.g. within a single trading day)?
- Q24:** Are there any adjustments that need to be made to the above execution quality metrics to accommodate different market microstructures?
- Q25:** What additional measures are required to define or capture the above data and relevant additional information (e.g. depth weighted spreads, book depths, or others) How should the data be presented: on an average basis such as daily, weekly or monthly for each financial instrument (or on more than one basis)? Do you think that the metrics captured in the Annex to this chapter are relevant to European markets trading in the full range of MiFID instruments? What alternative could you propose?
- Q26:** Please provide an estimate of the costs of production and publication of all of the above data and, the IT developments required? How could these costs be minimised?
28. Measurement of execution quality measurement is one aspect of Transaction Cost Analysis (TCA). There is an inherent limitation on the ability of standardised venue execution quality data to deliver all of the objectives of comprehensive TCA, since this requires an understanding of the client's objectives and the executing broker's strategy. These objectives will often be set in respect of multiple trades (for example, in transition management), which consequently requires an evaluation of the investment firm's aggregate trading position across multiple venues, rather than in respect of individual trades on one venue.

29. ESMA's objective in setting standards for venue execution quality data is therefore to facilitate TCA based on consistent data and calculation methodologies rather than to prescribe particular benchmarks. However, a sample of potential benchmarks is included in the Annex to this chapter as context for this Discussion Paper, and to provide an opportunity for respondents to comment on whether ESMA should specify methodologies for use in calculating any of these benchmarks.
30. ESMA recognises that the data included in standardised venue disclosures is only of value to the extent that it can be acted on by investors or their agents. Investment firms are currently required to conduct a review of their best execution policies whenever a material change occurs that affects their ability to continue to obtain the best possible result for the execution of its client orders on a consistent basis using the venues included in its execution policy.
31. Increasing the frequency of data reporting may increase how frequently firms need to review their execution policies. Both the publication of venue execution quality data and the administrative burden on firms of acting on it needs to be properly calibrated so that it is proportionate. But the obligation to review execution policies and arrangements where there has been a material change is already in place and execution quality data will merely be another source of information for firms to consider as part of their on-going monitoring processes.
32. The MiFID Implementing Directive states that *"a review [of the execution policy] shall [...] be carried out whenever a material change occurs that affects the firm's ability to continue to obtain the best possible result for the execution of its client orders"*. ESMA considers that the investment firm should take the publication of the data envisaged in this Discussion Paper into consideration, in order to determine whether they represent a "material change" which requires that they review their execution policy.

Q27: Would increasing the frequency of venue execution quality data generate additional costs for you? Would these costs arise as a result of an increase of the frequency of the review, or because this review will require additional training for your staff in order to be able to analyse and take into account these data? Please provide an estimate of these costs.

Q28: Do you agree that investment firms should take the publication of the data envisaged in this Discussion Paper into consideration, in order to determine whether they represent a "material change"?

Annex 2.3.1. Details of proposals regarding data to be provided by venues

33. The United States (US) operates a venue execution quality reporting regime and an obligation on investment firms to report details of their order flow. These obligations are set out in two Securities and Exchange Commission (SEC) Rules, numbers 605 and 606. Although there are significant differences in European and US market structures, as well as in the scope of the SEC and MiFID reporting regimes, the parts of the US Rules that it could be useful to consider when defining the reporting to be done by the venues are summarised here in sections A and B, to provide context. A range of potential metrics and benchmarks to facilitate comparisons between venues is set out in section C.

Section A: United States SEC Rule 605 reports – venue execution quality data

34. Rule 605 requires that monthly reports have to be categorised by:

- i. security;
- ii. order type comprising market orders, marketable limit orders, inside-the-quote limit orders, at-the-quote limit orders, and near-the-quote limit orders; and
- iii. order size in fixed ranges from 100-499; 500-1999; 2000-4999; >5000.

35. They must include information on:

- i. number of orders cancelled;
- ii. number of orders executed;
- iii. number of orders routed to another venue for execution;
- iv. speed of execution in seconds from receipt (0-9; 10-29; 30-59; 60-299; 300-1800); and
- v. average realised spread: calculated by comparing the execution price of an order with the midpoint of the BBO five minutes later.

36. Additional quality statistics are prescribed for non-resting orders (market and marketable limit), which are benchmarked against time of receipt rather than time of execution because the client expects to hit the quote displayed when they submit an order, not when it is executed. These quality statistics include:

- i. average effective spread (execution price compared with the midpoint of the BBO at time of receipt);
- ii. number of shares executed with price improvement against BBO; share weighted average price improvement per share; and share weighted time to execution;
- iii. number of shares executed at the quote and time to execution; and
- iv. number of shares executed with price dis-improvement against BBO; share weighted average price dis-improvement per share; and share weighted time to execution.

Section B: United States SEC Rule 606 – quarterly reports from investment firms on order routing.

37. Reports must be published within one month of the end of the preceding quarter and comprise:

- i. non-directed orders only (not those in response clients' specific instructions);
- ii. 4 sections (NYSE, NASDAQ, American Stock Exchange and options contracts);
- iii. broken down into market, limit and other orders;
- iv. top ten venues and any venue to which >5% of orders were directed, broken down by order type, as above;
- v. disclosure of inducements (payment for order flow) between investment firms and venues; and
- vi. large in scale (\$50,000 for an options contract or \$200,000 for others) excluded.

Section C: Potential relevant data, metrics and benchmarks

38. Potential relevant data, metrics and benchmarks include:

- i. security name (there may be some issues to facilitate comparison between venues where different tickers are used);
- ii. number of financial instruments;
- iii. transaction amount (number of financial instruments multiplied by price);
- iv. order size categories – if a benchmark VBBO is used such as €10,000 for small orders and €25,000 for larger orders – i.e. set amounts;
- v. benchmark: VBBO for a pertinent market depth;
- vi. order time/time category – this refers to grouping the transactions into time categories (hourly, monthly etc.);
- vii. comparison of execution price against VBBO;
- viii. VBBO per security published at set times to facilitate comparison between venues;
- ix. book depths³⁰ (e.g. 10 bps depth): if the mid-price of a stock is €5.00, the '10BPS liquidity' figure will measure the total value of all bids and offers in the order book with prices between 4.995 and 5.005;
- x. average trade size;

³⁰ If standardised book depths were published at set times e.g. daily, at the same time, in the same amounts, then comparisons could be made between venues.

- xi. spread at touch: difference between best visible bid and offer prices in the order book divided by mid-price and then converted to basis point;
- xii. depth weighted spread : for instance, if the best bid price in a book is €1.00 with volume 20,000 and the next best bid is €0.99 with volume 100,000 then the depth weighted €25,000 bid price is $((1.00 * 20,000) + (0.99 * 5,000)) / 25,000 = €0.998$; and
- xiii. latency of market data feed.

2.4. Best execution - publication of data by investment firms

Background/Mandate/Empowerment

Article 27(10)(b), MiFID II

ESMA shall develop draft regulatory technical standards to determine:

(b) the content and the format of information to be published by investment firms in accordance with paragraph 6.

ESMA shall submit those draft regulatory technical standards to the Commission by ...

Power is delegated to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with Articles 10 to 14 of Regulation (EU) No 1095/2010.

1. In December 2009, CESR distributed a questionnaire on Best Execution to investment firms, regulated markets and MTFs across the EEA.³¹ The responses identified that firms use a wide variety of criteria when selecting execution venues. Therefore, as no one factor was cited more frequently than others, it is difficult to draw generalised conclusions about how investment firms choose execution venues.

Analysis

2. The investment firm reporting requirement on order flow and on execution quality applies to all MiFID investment firms. ESMA considers that investment firms should report the identity of the top five venues (including execution venues such as systematic internalisers, market makers, or other OTC counterparties that qualify as execution venues) to which they direct their order flow.
3. Under MiFID, investment firms discharge their duty of best execution to clients that have given specific instructions on how to execute an order in respect of the part or aspect of the order to which the client instructions relate.
4. ESMA considers that it may be beneficial to ensure that orders that arise as a result of clients' specific instructions (or 'directed orders') are reported in the same way as all other orders. This is to prevent investment firms from attempting to circumvent the order flow reporting requirement by inducing clients to give specific instructions through standard contractual clauses. It remains an important feature of the best execution requirement that investment firms acting on clients' behalf should, in the overwhelming majority of cases, continue to exercise their own judgment on which venues to execute orders. However, it is necessary to separate 'directed' and 'non-directed' orders in order to clarify those for which an investment firm remains responsible.
5. Another potential driver of order routing behaviour may be the category of the client for whom the investment firm is executing. The best execution obligation imposes different requirements on investment firms executing orders for different categories of client. For retail clients, the best possible result shall be determined by considering the price of the financial instrument and the costs related to

³¹ http://www.esma.europa.eu/system/files/10_1415.pdf.

execution. It follows that investment firms must be able to demonstrate to individual clients that their orders have been executed in line with the relevant requirements.

6. However, given the way in which small orders can be aggregated, and large orders disaggregated, it may be the case that a high-level disclosure of order routing behaviour by investment firms may not show any difference in order routing behaviour by client category. Nevertheless, ESMA is willing to consider imposing any sub-categories in the order flow reporting requirement that improve the quality of the data set and prove useful to clients.
7. As with the need to distinguish between 'directed' and 'non-directed' orders it may be appropriate to distinguish between other order types. For example, order routing behaviour may be different depending on whether orders are market or limit orders (i.e. whether they take or supply liquidity). This, together with client categorisation, may indicate that smaller orders for retail clients are being directed differently to those of other clients.
8. In order to allow clients to evaluate the quality of a firm's execution, the new standards should oblige the firm to give an appropriate picture of the venues and the different ways they execute an order. ESMA considers that, when systematic internalisers, market makers, OTC negotiation or dealing on own account represent one of the five most important ways for the firm to execute clients' orders, they should be incorporated in the reporting obligations under Article 27(6) of MiFID II.

Q29: Do you agree that in order to allow clients to evaluate the quality of a firm's execution, any proposed standards should oblige the firm to give an appropriate picture of the venues and the different ways they execute an order?

Q30: Do you agree that when systematic internalisers, market makers, OTC negotiation or dealing on own account represent one of the five most important ways for the firm to execute clients' orders, they should be incorporated in the reporting obligations under Article 27(6) of MiFID II?

Q31: Do you think that the data provided should be different in cases when the firm directly executes the orders to when the firm transmits the orders to a third-party for execution? If yes, please indicate what the differences should be, and explain why.

Q32: Do you consider that information on both directed and non-directed orders is useful? Should the data be aggregated so that both types of order are shown together or separated? Should there be a similar approach to disclosure of information on market orders versus limit orders? Do you think that another categorisation of client orders could be useful?

Q33: Do you think that the reporting data should separate retail clients from other types of clients? Do you think that this data should be publicly disclosed or only provided to the NCA (e.g. when requested to assess whether there is unfair discrimination between retail clients and other categories)? Is there a more useful way to categorise clients for these purposes?

General principles

9. The investment firm order flow and execution quality reporting requirement is intended to help clients evaluate the quality of an investment firm's execution practices and compliance with its execution policy. In this respect, transparency about the venues chosen by the firm to execute client orders is of the utmost importance because it enables analysis of the correlation between venue execution

quality data and the venues that investment firms are actually choosing to use. It is essential that the information provided by the investment firms is easily understandable and comparable, therefore the highest possible degree of standardisation should be pursued in relation to information on where investment firms route their orders.

10. ESMA considers that the timeframe for reports should be the same for all firms. For instance, annual reports should include data from the previous civil year or with reference to fixed quarters (1 January to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October to 31 December). The reports should be published, at most, one month after the end of the relevant period, once again to allow for comparability and also timeliness. Such standardised reference periods and publication delay are required to facilitate comparison.
11. ESMA considers that in order to allow clients to compare the data of different investment firms when evaluating the quality of execution they provide, the investment firms should publish the data relating to their execution of orders with regard to a uniform reference period, with a minimum of specific reporting details and in a compatible format of data based on a homogeneous calculation method.

Q34: Do you agree that the investment firms should publish the data relating to their execution of orders with regard to a uniform reference period, with a minimum of specific reporting details and in a compatible format of data based on a homogeneous calculation method? If not, please state why.

Q35: What would be an acceptable delay for publication to provide the clients with useful data?

Q36: What format should the report take? Should there be any difference depending on the nature of the execution venues (MTF, OTF, Regulated Market, systematic internalisers, own account) and, if so, could you specify the precise data required for each type?

Investment firm execution quality

12. Unlike order flow reporting, which would benefit from harmonisation to allow for ready comparison, standardised measures of execution quality for investment firms are less easy to develop given the role played by client instructions, order type and a range of other factors in assessing performance.
13. For instance, many clients (particularly more sophisticated buy-side firms) will give very detailed instructions and will often specify the performance benchmark to the investment firm executing their orders. Common measures might be to set a participation rate, aim to achieve the volume weighted average price (VWAP) over a trading day or the time-weighted average price (TWAP) for a specified period.
14. More sophisticated approaches can be taken to minimise the implementation shortfall of a given execution (the difference between the theoretical value of an order when received by the executing investment firm versus the value of the subsequent execution), which take account of explicit execution costs and also the implicit costs related either to the market impact of the execution or the opportunity cost of not executing.
15. This is an area of considerable complexity and investment firms, their clients and third party consultants continue to develop algorithms to optimise and assess execution performance. For this reason,

ESMA recognises that there are limits to the ability to specify standard measures of execution quality for investment firms that may be acting on a wide range of client instructions, including prescribed performance benchmarks. In addition, Article 27(6) of MiFID II specifies that the reporting obligation is “*for each class of financial instruments, the top five execution venues in terms of trading volumes where they executed client orders in the preceding year and information on the quality of execution obtained*”. This calls for a much higher level of summary than the corresponding obligation on venues in Article 27(3) of MiFID II, which requires data on the execution of transactions in each individual financial instrument.

16. The combination of the difficulty in knowing clients’ trading intentions or the nature of their instructions to an investment firm and the more summary nature of the investment firm reporting obligation means that it is not appropriate to specify measures of execution quality for investment firms.
17. In addition, specified measures of execution quality may be inappropriate given the needs of different client categories, different business models or scales of activity. However, clients, investment firms, their NCAs and other market participants will obtain the maximum benefit from the proposed report if they are able to compare the quality of reporting produced by different investment firms with reporting produced by trading or execution venues. This will allow them to identify any actual or potential discrepancies.
18. ESMA considers that it is the express intention of Article 27(7) of MiFID II for investment firms to have regard to both the data on execution and trading venue reporting and also to their own execution quality monitoring when they assess whether their execution arrangements are adequate, or if they need to take action to correct deficiencies observed. It is therefore appropriate for investment firms’ execution quality reporting to clearly show how this data has been used in firms’ assessment of their execution quality.
19. ESMA considers that, in light of the difficulty of specifying harmonised criteria for investment firms to use when reporting on the quality of the execution they obtain, it is proportionate to require firms to publish a summary based on their own internal monitoring of execution quality achieved at the top five execution venues in terms of trading volumes, subject to specifying certain minimum standards for the content of that monitoring.
20. Under Article 27(7) and 27(8) of MiFID II, investment firms are required to conduct regular monitoring of the effectiveness of their execution policies and arrangements, and to be able to demonstrate to clients on request that they have executed orders in line with their policy. If investment firms were to be required to publish the results of their own monitoring of execution quality at the top five venues where they execute client orders there would be a strong incentive for all firms to improve the quality of that monitoring, which is already a regulatory obligation under MiFID I.
21. The incentive to improve standards could be supported by innovation amongst third party specialists in transaction cost analysis and would, over time, tend towards a general improvement in the quality of internal monitoring because of the incentive for firms to demonstrate, through the publication of their results and their subsequent actions, that they are discharging their monitoring obligations to a high standard.
22. Moreover, investment firms with different business models, client information needs, or activities in differing markets would have to produce monitoring that is sufficient for their needs and those of their clients. The content of reporting could therefore remain flexible, provided that it is of a sufficient

minimum standard to constitute taking “*all sufficient steps to obtain, when executing orders, the best possible result for their clients*”.

23. ESMA considers it important to ensure that the implementation cost of this obligation is proportionate to its potential benefit to market participants. Since monitoring is already a regulatory obligation, ESMA considers that the implementation costs of publication should be minimal when compared with the alternative of developing a bespoke regulatory reporting product, which may be of more limited use. Firms could, if they chose to do so, publish their full internal monitoring without the additional time and expense involved in preparing a summary.
24. In addition, ESMA considers that there would be clear benefits to enhanced transparency over the ways in which investment firms identify and correct deficiencies, or consider changes to their execution arrangements (as required under Article 27(7) of MiFID II). Increasing transparency in this crucial area would be fully consistent with the overall objectives of MiFID II and would also reflect recent supervisory experience by Member States, that the quality of investment firm monitoring of execution quality is not consistently good.
25. Recent ESMA work also indicated that the level of client awareness of best execution is not high, and that, as a result, there is little challenge by clients of how firms ensure best execution. Publication of monitoring would increase awareness of a client’s right to request demonstration that their own orders have been executed in line with an investment firm’s execution policy. This is fully in line with other enhancements to Article 27 of MiFID II, which focus on improving the adequacy of disclosure and information to clients.
26. ESMA is mindful that there may be distinct challenges related to an assessment of execution quality in relation to ‘directed orders’ for which the client assumes some degree of responsibility as a result of having given specific instructions to an investment firm. It would be neither fair nor useful for summary information on execution quality to capture decisions for which an investment firm is itself not responsible.
27. While MiFID II is clear that best execution continues to apply to those aspects of an order not covered by specific instructions, it could be a very complex task to establish a clear perimeter of responsibility for order execution in a summary report. For example, the simplest specific instruction could be where clients have selected a particular execution venue.
28. Other instructions may also be relevant, including the use of specific performance benchmarks. However, ESMA considers that in the case of performance benchmarks that are specified by the client, the investment firm is still responsible for achieving the best possible result (and not merely the minimum standard specified in the benchmark), such that it would still be relevant to capture information on execution quality where a particular benchmark has been set.
29. In considering minimum standards for publication of firms’ own monitoring, ESMA considers that investment firms would need to demonstrate that:
 - i. monitoring included information on execution quality in respect of each class of financial instrument for which the firm executed client orders in the preceding year;
 - ii. their published monitoring is based on a representative sample of client orders;

- iii. it distinguishes orders executed for different categories of MiFID client (given that different standards apply to retail and professional clients under the relevant rules and do not apply at all to eligible counterparties);
 - iv. they were making use of the most recent publication of venue execution quality monitoring that will be implemented under Article 27(3) of MiFID II;
 - v. the publication contains an adequate summary of all internal monitoring processes (e.g. front office, second line and periodic review by compliance or audit functions);
 - vi. it includes adequate context or analysis to enable clients to understand how the firm assessed execution quality; and
 - vii. it contained an indication of how the monitoring was, or would be, used by the firm (for example, whether corrective actions were being taken in response).
30. In order to maximise the benefits of the investment firm execution quality monitoring, given the range of different client needs and intentions, it is proportionate to require investment firms to publish on an annual basis a summary based on their internal execution quality monitoring of their top five execution venues in terms of trading volumes, subject to certain minimum standards.

Q37: Do you agree that it is proportionate to require investment firms to publish on an annual basis a summary based on their internal execution quality monitoring of their top five execution venues in terms of trading volumes, subject to certain minimum standards?

Q38: Do you have views on how ‘directed orders’ covered by client specific instructions should be captured in the information on execution quality? Is it possible to disaggregate reporting for directed orders from those for which there are no specific instructions and, if so, what the most relevant criteria would be for this exercise?

Q39: Minimum standards to ensure that the summary of the firm’s internal execution quality monitoring of their top five execution venues (in terms of trading volumes) is comprehensive and contains sufficient analysis or context to allow it to be understood by market participants shall include the factors set out at paragraph 29. Do you agree with this analysis or are there any other relevant factors that should be considered as minimum standards for reporting?

Q40: Can you recommend an alternative approach to the provision of information on execution quality obtained by investment firms, which is consistent with Article 27(6) of MiFID II and with ESMA’s overall objective to ensure proportionate implementation?

Data granularity

31. As with the challenge of standardising venue execution quality data, it is necessary to strike a balance between the granularity of data from investment firms and a level of aggregation that will facilitate meaningful comparisons to be made. MiFID II requires reporting by investment firms to take place “*per class of financial instruments*” and the term is not defined for the purposes of this reporting obligation. If the instrument class is too widely drawn, it will not yield meaningful results because the instruments within the class are too disparate to be comparable. An example is the framework set out in Annex 1, Section C of MiFID I, which sets out eight derivative classes but only one class of “*transferable securities*”.

32. Other European legislation provides further specificity in the definition of financial instruments. For example, MiFIR breaks down the list of equity financial instruments subject to transparency requirements into shares, depositary receipts, ETFs, certificates and others. Article 8 of MiFIR classifies non-equity financial instruments into bonds, structured finance products, emission allowances and derivatives, while the RTS supplementing the EMIR Regulation³² specifies classes of derivatives in six classes (commodities; credit; foreign exchange; equity; interest rate and other). The regulatory context of the introduction of the order flow requirement also includes widespread changes to pre and post-trade transparency reporting requirements within the EEA. All of these new obligations are mutually reinforcing and facilitate greater client scrutiny of trading behaviour.
33. One significant issue is that the number of potential sub-classes of instruments will result in a far broader reporting obligation than in other jurisdictions, which only assess execution quality of shares and options. ESMA recognises the need to ensure that the order flow reporting requirement obligation remains proportionate.
34. One way of achieving this may be to harmonise the definition of ‘classes of financial instrument’ with those used in the pre and post-trade transparency regime, insofar as possible. ESMA is conducting work on non-equity classification and segmentation of financial instruments for the purposes of pre and post-trade transparency reporting, and proposes to coordinate both work streams in order to reach shared definitions where possible.
35. Other additional data that is relevant to an assessment of investment firms’ direction of order flow may include disclosures of any relevant conflicts of interest. Potential examples include third party payments covered by the rules on inducements, close links, or common ownership. Please see the ‘Best Execution’ chapter of the Consultation Paper on MiFID II/MiFIR for further examples in this area.
36. ESMA sees potential value in this information as an indicator of influences in order routing behaviour, which may provide context for the venue identification. Where, for example, a broker is routing a significant volume of orders to an MTF, which it or another entity within the same group owns, or to another venue in which it has a significant shareholding, that information may be relevant to the assessment of its order routing behaviour. ESMA is open to whether such information could be provided in a format that would make it useful to clients.
37. The Annex to this chapter sets out further rationale and examples of information discussed in this chapter.
38. ESMA considers that the information set out in the questions below should be considered in determining the content of best execution reporting by investment firms.

³² EU Regulation No. 648/2012.

- Q41: Do you agree that ESMA should try to limit the number of definitions of classes of instruments and provide a classification that can be used for the different reports established by MiFID and MiFIR?**
- Q42: If this approach is not viable how should these classes be defined? What elements should be taken into consideration for that classification? Please explain the rationale of your classification. Is there a need to delay the publication of the reporting for particular class of financial instruments? If the schedule has to be defined, what timeframe would be the most relevant?**
- Q43: Is any additional data required (for instance, on number of trades or total value of orders routed)?**
- Q44: What information on conflicts of interest would be appropriate (inducements, capital links, payment for order flow, etc.)?**

Annex 2.4.1. Detail of proposals relating to data regarding order flow to be provided by investment firms

39. Execution venues should include all trading venues, systematic internalisers and OTC transactions.
40. Additionally, in order to guarantee the relevance of the data, ESMA questions whether it is necessary to impose an additional degree of specification, namely through a reference to the most liquid market for a particular instrument. In ESMA's view, the trading activities of big investment firms on Europe's largest markets would be likely to dominate reporting, which would therefore fail to capture the diversity and geographical distribution of relevant markets and instruments.
41. ESMA would like to gather opinion about a requirement that each class of instruments is divided into as many subclasses as the number of most relevant markets in terms of liquidity of the instruments included in the class. This subdivision would only be imposed on large investment firms (for instance, with a traded volume above a set threshold). ESMA believes that this would help to ensure the proportionality of the proposal by limiting the compliance burden on small firms.
42. ESMA would also like to address the question of requiring a subdivision based on the liquidity of the asset. The following example aims at clarifying this possible additional level of information:
43. For example, if a firm executes on the London Stock Exchange (LSE) an order for a stock that actually has the Euronext Paris as its most relevant market, the LSE number would go up on the firm's reporting. On the surface that would not signal anything because the LSE may be a perfectly acceptable venue in general, but it would miss the fact that it is not the most appropriate for this stock.
44. If this proposal is taken forward it would be useful to develop some templates with specific examples to have a clear picture on what the reports would look like.
45. The data to be reported for each class of instrument could be twofold.
46. First, for each relevant subclass of financial instrument/relevant most liquid market there could be some "summary statistics" referring to the percentage of orders³³ that were market orders, limit orders and other types of orders. The information should be provided both in the number of orders and in value.
47. Secondly, the top five execution venues where most orders were executed should be disclosed together with their percentage of total executed orders (view Exhibit 1 for an example).
48. In addition, it may be appropriate to consider the possibility of including a benchmarking methodology measuring the quality of the executions. The VBBO of the reference market of the share could be worth exploring. For the financial instruments mainly traded on OTC, metrics such as the average spread and the notion of Hit Ratio could be useful.

Exhibit 1: Report from investment firm A

³³ Some more information relating to the ratio between executed orders and received orders could be provided in order to give a more global picture of the execution quality provided by the firm.

49. The following is a sample template to satisfy the order flow reporting. A detailed report would then be necessary for each ‘class of financial instruments’ and for each category of clients. Additional detailed reports would be required if ‘classes of financial instrument’ were to be further differentiated by referring to the most liquid market for a particular instrument. A column for ‘additional disclosures’ has been suggested to capture any qualitative data on conflicts of interest, which may provide context to the quantitative data, as set out in paragraph 35.

Class of financial instrument X (for instance, shares traded on the most liquid market)

Summary statistics

Market orders as percentage of all orders	27%
Limit orders as percentage of all orders	13%
Other orders as percentage of all orders	60%

Top 5 venues receiving percentage of all orders

Execution Venues	All orders
Venue 1	36%
Venue 2	17%
Venue 3	11%
Venue 4	7%
Venue 5	6%

Detailed report template - Non-professional clients

Order Type	Venue Name	% Executed orders	Total consideration executed	Additional disclosures
Market Order	Venue 1	36%	Value M €	Inducements, close links etc.
Market Order	Venue 2	17%		
Market Order	Venue 3	11%		
Market Order	Venue 4	7%		
Market Order	Venue 5	6%		
Limit Order	Venue 1			
Limit Order	Venue 2			
Limit Order	Venue 3			
Limit Order	Venue 4			
Limit Order	Venue 5			
Other Order	Venue 1			
Other Order	Venue 2			
Other Order	Venue 3			
Other Order	Venue 4			
Other Order	Venue 5			

3. Transparency

3.1. Pre-trade transparency - Equities

Background/Mandate/Empowerment

1. MiFID I introduced pre-trade transparency obligations applicable to shares admitted to trading on regulated markets with the aim of providing the wider investing public with information on trading opportunities on a timely basis. MiFIR extends the current pre-trade transparency obligations as a way of mitigating the potential adverse impact of market and liquidity fragmentation, promoting the efficiency of the overall price formation process on a pan-European basis and assisting the effective operation of best execution obligations.
2. MiFIR extends the pre-trade transparency obligations for equity markets in two ways. Firstly, MiFIR extends the requirements to a wider range of instruments and order types so that pre-trade transparency applies to “equity-like instruments” (*depository receipts, ETFs, certificates and other similar financial instruments*) and to actionable indications of interest (A-IOI). Secondly, MiFIR extends pre-trade transparency to a wider range of trading venues so that for equities and equity-like instruments the requirements apply not only to instruments which are admitted to trading on a regulated market but also to those traded on an MTF.

Article 4(6), MiFIR - Waivers for equity instruments

ESMA shall develop draft regulatory technical standards specifying the following:

- (a) the range of bid and offer prices or designated market-maker quotes, and the depth of trading interest at those prices, to be made public for each class of financial instrument concerned in accordance with Article 3(1), taking into account the necessary calibration for different types of trading systems as referred to in Article 3(2);*
- (b) most relevant market in terms of liquidity of a financial instrument in accordance with paragraph 1(a);*
- (c) specific characteristics of a negotiated transaction in relation to the different ways the member or participant of a trading venue can execute such a transaction*
- (d) negotiated transactions that do not contribute to price formation which avail of the waiver provided for under paragraph 1(b)(iii);*
- (e) the size of orders that are large in scale and the type and the minimum size of orders held in an order management facility of a trading venue pending disclosure for which pre-trade disclosure may be waived under paragraph 1 for each class of financial instrument concerned*

Scope

Analysis

3. Article 3(1) of MiFIR sets the scope of pre-trade transparency requirements for equity and equity-like instruments.

Article 3(1), MiFIR

1. *Market operators and investment firms operating a trading venue shall make public current bid and offer prices and the depth of trading interests at those prices which are advertised through their systems for shares, depositary receipts, ETFs, certificates and other similar financial instruments traded on a trading venue. That requirement shall also apply to actionable indication of interests. Market operators and investment firms shall make that information available to the public on a continuous basis during normal trading hours*

4. Actionable indications of interest (“IOIs”) are defined under Article 2(1)(33) of MiFIR as “a message from one member or participant to another within a trading system in relation to available trading interest that contains all the necessary information to agree on a trade”. MiFIR does not specify the precise content of information which would make an IOI actionable.

Proposal

5. ESMA considers that the minimum necessary information includes price, volume, and whether it is for a buy or sell order, and is seeking views on this point. ESMA understands an actionable IOI to be a message that contains a binding expression to trade from one counterparty to the counterparty that initially sought indications of interest to trade.

Q45: What in your view would be the minimum content of information that would make an indication of interest actionable? Please provide arguments with your answer.

Trading Models

Analysis

Recital 16, MiFIR

In order to ensure uniform applicable conditions between trading venues, the same pre-trade and post-trade transparency requirements should apply to the different types of venues. The transparency requirements should be calibrated for different types of financial instruments, including equities, bonds, and derivatives, taking into account the interests of investors and issuers, including government bond issuers, and market liquidity. The requirements should also be calibrated for different types of trading, including order-book and quote-driven systems such as request for quote as well as hybrid and voice broking systems, and take account of transaction size, including turnover, and other relevant criteria.

6. MiFID II provides for two types of trading venues (regulated markets and MTFs) in the equities area and within each of these categories of trading venues there may be different types of trading systems e.g. quote driven, continuous auction order book trading, etc. ESMA is of the opinion that the type of trading system should be the starting point for determining the appropriate level of pre-trade transparency which must be made public and notes that under Article 3(2) of MiFIR “*the transparency requirements referred to in paragraph 1 shall be calibrated for different types of trading systems including order-book, quote-driven, hybrid and periodic auction trading systems*”. In order to ensure uniform applicable conditions between trading venues, the same pre-trade transparency requirements, defined at trading system level, would then apply equally to the regulated markets and MTFs to the extent that the trading systems can be operated in line with the definition of the trading venues under MiFIR.

7. Under the current MiFID framework, Article 17 of Regulation 1287/2006 requires an investment firm or market operator operating an MTF or a regulated market to make public certain information. Table 1, Annex II of Regulation 1287/2006 (see below) includes a description of each type of trading system and the summary of information to be made public.

Type of system	Description of system	Summary of information to be made public, in accordance with Article 17
<i>Continuous auction order book trading system</i>	<i>A system that by means of an order book and a trading algorithm operated without human intervention matches sell orders with matching buy orders on the basis of the best available price on a continuous basis.</i>	<i>The aggregate number of orders and the shares they represent at each price level, for at least the five best bid and offer price levels.</i>
<i>Quote-driven trading System</i>	<i>A system where transactions are concluded on the basis of firm quotes that are continuously made available to participants, which requires the market makers to maintain quotes in a size that balances the needs of members and participants to deal in a commercial size and the risk to which the market maker exposes itself.</i>	<i>The best bid and offer by price of each market maker in that share, together with the volumes attaching to those prices.</i>
<i>Periodic auction trading System</i>	<i>A system that matches orders on the basis of a periodic auction and a trading algorithm operated without human intervention.</i>	<i>The price at which the auction trading system would best satisfy its trading algorithm and the volume that would potentially be executable at that price.</i>
<i>Trading system not covered by first three rows</i>	<i>A hybrid system falling into two or more of the first three rows or a system where the price determination process is of a different nature than that applicable to the types of system covered by first three rows.</i>	<i>Adequate information as to the level of orders or quotes and of trading interest; in particular, the five best bid and offer price levels and/or two-way quotes of each market maker in the share, if the characteristics of the price discovery mechanism so permit.</i>

Table 1: Annex II, Table 1, MiFID Regulation 1287/2006

Proposal

8. The above table applies to shares traded in trading systems which are either a regulated market or an MTF and ESMA is of the opinion that this table is still valid for shares traded on these two types of trading venues.
9. ESMA is of the preliminary opinion that equity-like products are traded principally through the same trading systems as shares. Therefore, the existing table would be appropriate for equity-like instruments traded on regulated markets and MTFs and any further modifications made to the table would be relevant for both shares and equity-like instruments. However, ESMA would welcome comments in relation to whether respondents agree with this approach.

Q46: Do you agree with ESMA's opinion that Table 1 of Annex II of Regulation 1287/2006 is still valid for shares traded on regulated markets and MTFs? Please provide reasons for your answer.

Q47: Do you agree with ESMA's view that Table 1 of Annex II of Regulation 1287/2006 is appropriate for equity-like instruments traded on regulated markets and MTFs? Are there other trading systems ESMA should take into account for these instruments? Please provide reasons for your answer.

Large in scale waivers

Shares and Depository Receipt

10. Under MiFID I, certain waivers to the pre-trade transparency requirements for shares are permitted and MiFIR continues to recognise that there are circumstances where exemptions from pre-trade transparency obligations are necessary. Article 4 of MiFIR establishes the regulatory framework for granting waivers from pre-trade transparency for equity and equity-like instruments. This provision empowers ESMA to draft RTS specifying under what conditions competent authorities are able to waive the obligation for trading venues to make public bids and offers and the depth of trading interest.
11. MiFIR, broadly building on the existing MiFID, specifies four waivers from pre-trade transparency: orders that are large in scale, orders held in an order management facility, systems that formalise negotiated transactions and systems matching orders on the basis of a reference price. For each of those waivers MiFIR empowers the Commission to adopt measures specifying under what conditions competent authorities are able to waive the obligation for trading venues to make public pre-trade information.
12. According to Article 4(1) of MiFIR, NCAs may grant waivers from pre-trade transparency requirements for orders that are large in scale compared to normal market size.

Article 4(1), MiFIR

Competent authorities shall be able to waive the obligation for market operators and investment firms operating a trading venue to make public the information referred to in Article 3(1) for:

...

(c) orders that are large in scale compared with normal market size

13. The large in scale waiver is designed to protect large orders from adverse market impact and to avoid abrupt price movements that can cause market distortion. MiFIR recognises that mandatory public transparency for large orders can make the costs of execution higher than if the order is not displayed publicly.
14. A waiver for large in scale orders exists under MiFID I for shares and the thresholds are set out in Table 2, Annex II of MiFID Regulation 1287/2006 (see below).
15. Under MiFID I, the average daily turnover (ADT) is used to determine when an order should be considered to be large in scale compared to normal market size. The ADT is calculated by dividing the yearly turnover by the number of trading days and this calculation is made for each share on an annual basis. The shares are grouped within five different classes and the result of the annual ADT calculation determines whether the share should be reclassified and moved to another class. The higher the ADT, the higher the minimum threshold for the large in scale waiver.

Table 2
Orders large in scale compared with normal market size

<i>(in EUR)</i>					
Class in terms of average daily turnover (ADT)	ADT < 500 000	500 000 ≤ ADT < 1 000 000	1 000 000 ≤ ADT < 25 000 000	25 000 000 ≤ ADT < 50 000 000	ADT ≥ 50 000 000
Minimum size of order qualifying as large in scale compared with normal market size	50 000	100 000	250 000	400 000	500 000

Table 2: Orders large in scale compared with normal market size

16. With the introduction of MiFID II, ESMA wishes to seek feedback on a number of points to determine the extent to which the existing approach to the large in scale waiver requires amendment. In particular, ESMA seeks comments on:
 - i. whether the ADT remains an appropriate proxy for determining the measure of the large in scale thresholds for an instrument;
 - ii. whether and how the existing large in scale thresholds under MiFID I require adjustment;
 - iii. the frequency of the calibration of the large in scale thresholds;
 - iv. the frequency of the calculation to determine within which class an instrument falls; and
 - v. how ESMA should address stub orders where a large in scale order has been only partially filled.

Use of ADT as measure of market impact

17. A key feature of the current large in scale waiver regime for shares is that it rests on using the ADT as the sole proxy for measuring market impact. ESMA recognises that other proxies for measuring market impact exist such as the average value of transactions or the market depth. However, ESMA is of

the preliminary view that the ADT remains a suitable basis on which to establish the large in scale waiver regime under MiFID II. This metric is well correlated with liquidity, predictable, objective, easy to calculate and well understood by market participants.

Q48: Do you agree with ESMA's view that ADT remains a valid measure for determining when an order is large in scale compared to normal market size? If not, what other measure would you suggest as a substitute or complement to the ADT? Please provide reasons for your answer.

Q49: Do you agree that ADT should be used as an indicator also for the MiFIR equity-like products (depository receipts, ETFs and certificates)? Please provide reasons for your answers.

Depository Receipts

18. ESMA intends to apply the same regime that is ultimately decided on for shares also to depository receipts. Therefore all the considerations on future ADT classes and thresholds for shares in the following section should be read as applying identically to depository receipts.

Adjustment of the existing large in scale thresholds

19. This section deals with the adjustment of the pre-trade transparency large in scale regime for shares under MiFID II. The thresholds for the size of the minimum large in scale orders for shares under MiFID I have been in place since 2007. ESMA is aware that some market participants are of the view that these thresholds are no longer appropriate as the gap between the average order size and the large in scale threshold is too wide and consequently, market participants do not receive adequate protection from market impact when submitting orders.
20. Generally speaking, ESMA may either increase the level of the thresholds for the large in scale waivers or decrease the level of the thresholds bearing in mind that one of the main objectives of MiFIR is to increase transparency in financial markets. In considering this matter, ESMA has noted the following benefits and disadvantages attendant with each action.

Reducing the large in scale thresholds

21. ESMA considers that there are benefits and drawbacks in reducing the size of the large in scale thresholds.
22. A potential reduction of harmful impact on the execution costs of large orders. Displaying large orders could damage the quality of execution of these trades as market participants – i.e. the rest of the order book - can reset or adapt their orders (e.g. moving up or down the price limit, changing the size of the order, removing their orders from the order book, etc.). Mandating transparency at a lower level could however lead to an increase of implicit transaction costs.
23. A potential reduction of disruptions in the order book. If large in scale orders are not displayed in the order book, this could reduce abrupt price movements. The introduction of large orders can increase volatility and the orderly function of the order book. These large trades can modify the size of the order book, skewing a quote.

24. ESMA is mindful, however, that such action could also have a negative impact on the quality of the price discovery process and would overall reduce the level of transparency available to market participants and the public at large. There would be higher traded volume not taking part in the price discovery process within the order book of the lit market. Draining liquidity from the order book would increase volatility as a result of a wider spread and lower depth.

Increasing the large in scale thresholds

25. ESMA considers that there are benefits and drawbacks in increasing the size of the large in scale thresholds.
26. A positive potential impact in the quality of the price discovery process. A richer and more liquid order book could benefit the quality of the price discovery process and the price would be more representative of the trades related to an issuer. This could lead to a reduction of implicit transaction costs for all participants.
27. ESMA considers, however, that a potential adverse consequence of raising the large in scale threshold could be the reduction in traded volume within the order book of the trading venue. Even the perception that the regime affords less protection than currently could make large in scale traders reluctant to trade on the lit book, leading to a reduction of transparent trading. However the impact of the trading obligation for shares also needs to be taken into consideration which will prevent moving trading off-venue.
28. These potential consequences are not exhaustive and their impact will depend finally on the play of market forces. Consequently, it is difficult to make an accurate assessment *ex ante*.
29. ESMA is also considering whether to either keep the existing system as it is currently incorporated in Regulation (EC) No 1287/2006 or – based on an analysis of the current thresholds displayed below – introduce modifications to the regime for equities increasing the granularity of ADT classes and fixing new pre-trade thresholds per ADT class accordingly. In the latter case the aim is not to unambiguously increase or decrease the level of the thresholds but rather to ensure that thresholds remain appropriate for each class of share while overall increasing the level of transparency in financial markets. ESMA's analysis is based on data retrieved from the ESMA MiFID database³⁴ for the years 2008 to 2013.

³⁴ <http://mifidatabase.esma.europa.eu/>

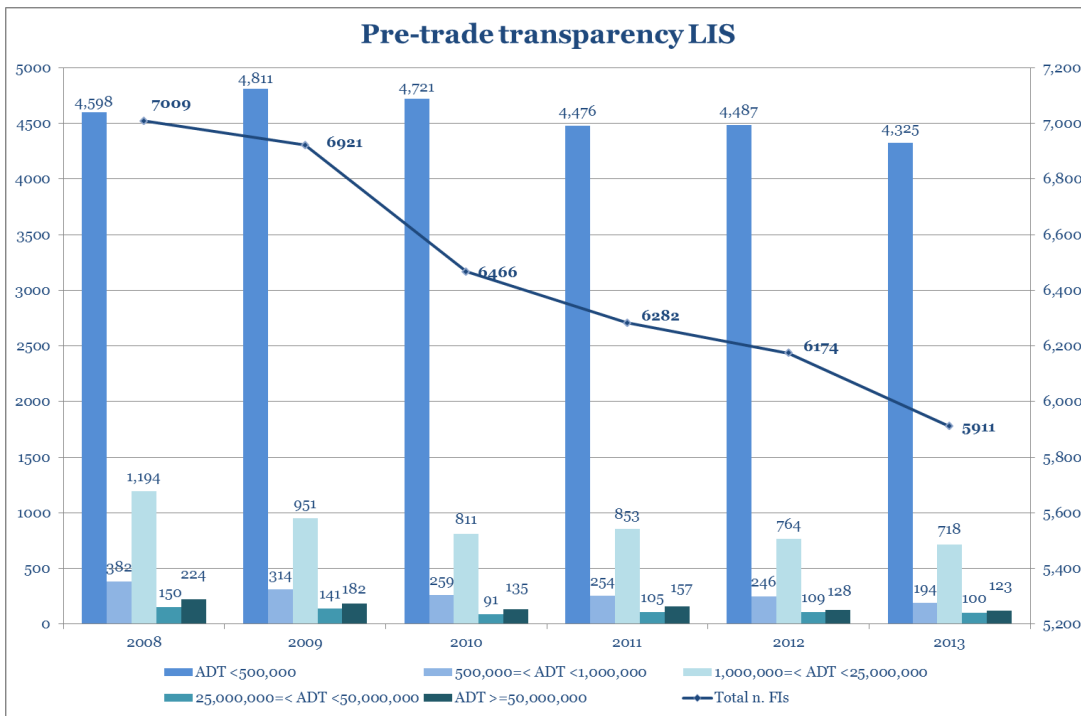


Chart 1: Pre-trade transparency large in scale

30. Chart 1 shows the number of shares within each of the five ADT classes under the MiFID I pre-trade transparency regime for large in scale transactions for each year from 2008 to 2013.

	ADT <100,000	100,000=< ADT <500,000	500,000=< ADT <1,000,000	1,000,000=< ADT <25,000,000	25,000,000=< ADT <50,000,000	ADT >=50,000,000
2008	46.15%	19.45%	5.45%	17.04%	2.14%	3.20%
2009	55.40%	14.12%	4.54%	13.74%	2.04%	2.63%
2010	58.86%	14.15%	4.01%	12.54%	1.41%	2.09%
2011	56.46%	14.79%	4.04%	13.58%	1.67%	2.50%
2012	59.86%	12.81%	3.98%	12.37%	1.77%	2.07%
2013	60.82%	12.35%	3.28%	12.15%	1.69%	2.08%

Table 3: Percentage of shares within different ADT classes

31. Table 3 provides a more granular picture of the percentage of shares falling within different ADT ranges under the MiFID I pre-trade transparency regime. The MiFID I post-trade transparency regime for large in scale transactions has four ADT classes (ADT < 100,000 / 100,000 =< ADT < 1m / 1m =< ADT < 50m / ADT >= 50m) compared to five ADT classes under the pre-trade transparency regime. Therefore, to enable comparison with the distribution of shares within the classes under the post-trade transparency regime, the above table also shows the percentage of shares falling below ADT 100,000 (which is the first post-trade transparency ADT class under MiFID I).

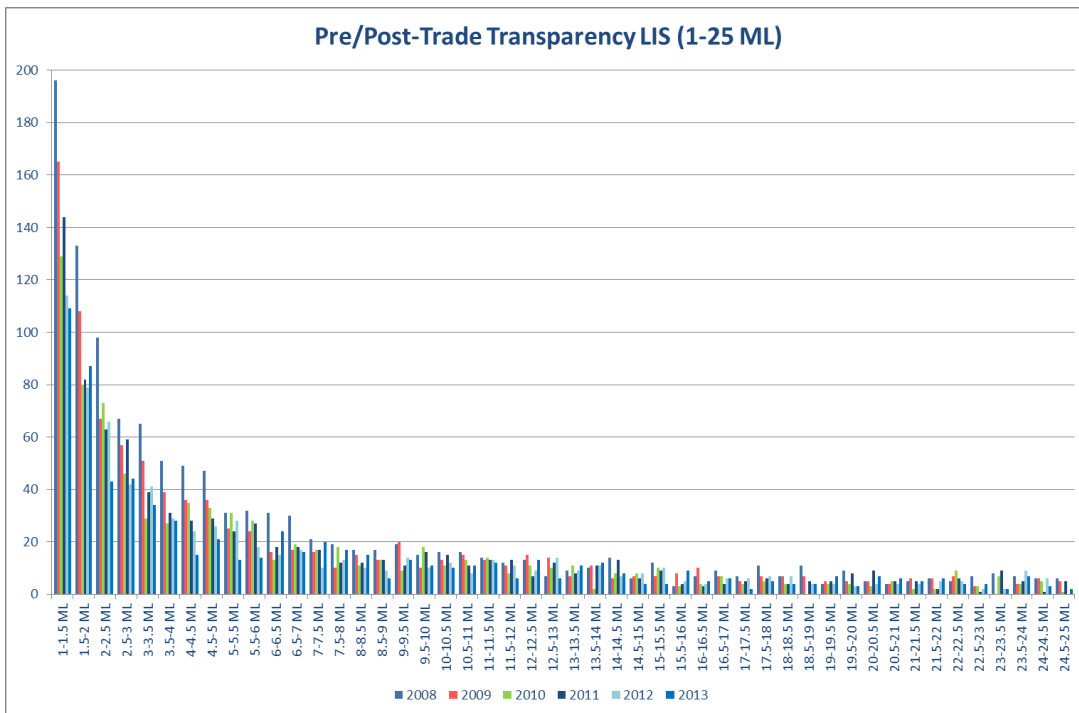


Chart 2: Pre/post-trade transparency large in scale (1-25 ML)

32. Table 3 shows that, after the ADT range from 0 to €500,000, the highest concentration of shares is within the ADT class of €1m to €25m. Therefore, Chart 2 provides further granularity for this ADT range, showing the number of shares per year, between 2008 and 2013.

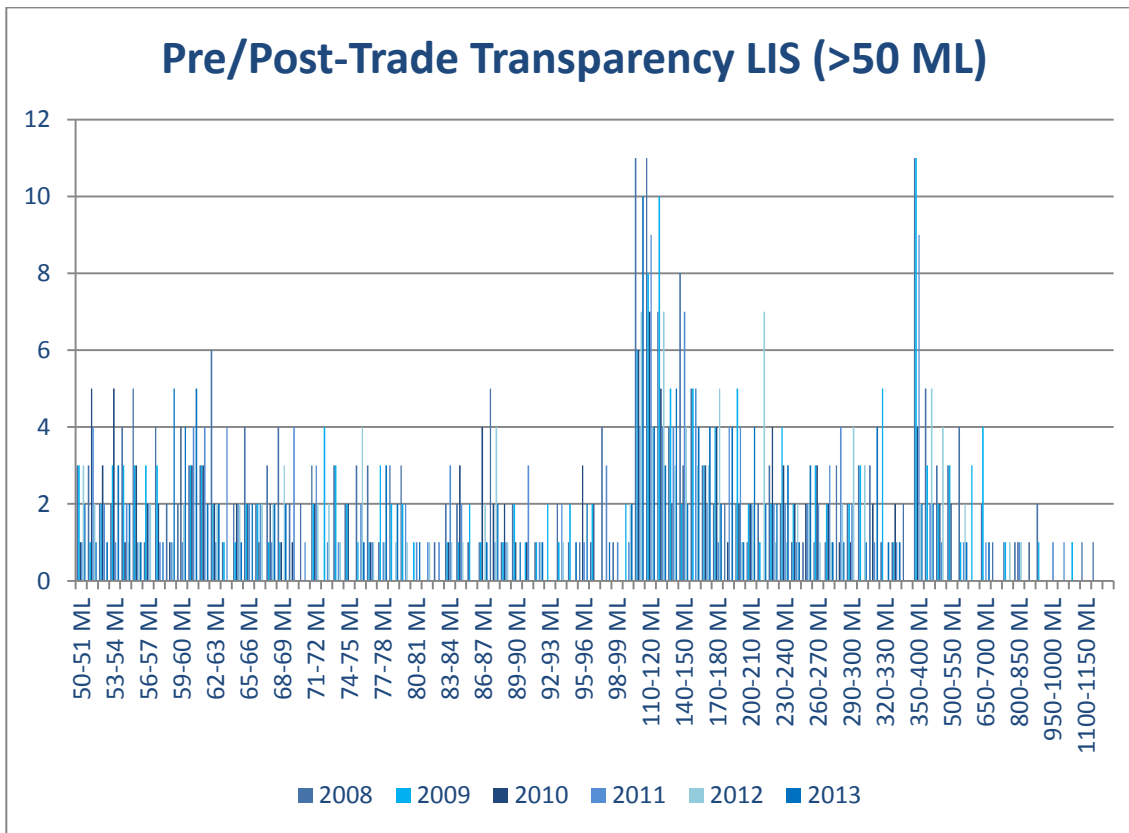


Chart 3: Pre/post-trade transparency large in scale (>50ML)

33. Chart 3 shows the distribution of shares in terms of ADT in the highest liquidity class currently foreseen in the Level 2 Regulation, i.e. in excess of €50m ADT. The chart demonstrates that while the absolute number of these ‘super liquid’ shares in Europe is relatively low (123 shares in 2013), their distribution in terms of ADT is very wide (please note that the scale of the chart changes at €100m for display purposes partially causing the peak at the €100m ADT level). In absolute numbers 54 shares have an ADT of €50 to €100m while 69 have an ADT in excess of €100 m.
34. The key findings from the above analysis are:
- i. The majority of the shares admitted to trading on EU trading venues have an ADT below €500,000 (see Chart 1) across all years. However, the percentage of shares with an ADT below €100,000 has increased from 46% in 2008 to 61% in 2013 (see Table 3).
 - ii. There is a high concentration of shares at the lower end of the ADT class of €1 to €25m.
 - iii. There is a wide dispersion of shares in the ADT class exceeding €50m.
35. Based on these key findings ESMA is considering proposing a new regime by increasing the number of ADT classes and the corresponding large in scale thresholds from five to eight. ESMA is aware that this approach would increase the overall complexity of the pre-trade transparency regime but at the same time the new regime would be able to set thresholds more appropriate to the liquidity characteristics of each share within each of the more granular ADT classes. Given that MiFIR also imposes a trading obligation for shares, setting proper thresholds for large in scale orders will be critical and is

an additional argument in favour of adding more granularity and precision on the pre-trade transparency side.

36. ESMA also proposes aligning the ADT classes for pre-trade and post-trade transparency which currently differ in MiFID Regulation (EC) No 1287/2006. Therefore this new regime would also remove a certain degree of complexity embedded in the current regime. ESMA is seeking views from market participants on the proposed eight ADT classes and on the level of large in scale thresholds set out in the proposal below.
37. In respect of the finding in paragraph 34.i above ESMA is mindful of the migration of shares to an ADT of below €100,000 and consequently, whether the current large in scale pre-trade threshold of €50,000 is adequate for this large number of illiquid shares. ESMA therefore proposes creating an additional class for shares with an ADT of below €100,000 with a lower large in scale threshold in response to feedback that the large in scale threshold for such illiquid shares was too high and therefore was detrimental to liquidity. ESMA would like to collect views from market participants on whether they consider there is benefit in creating such a class with respect to how far it may help promote liquidity in such illiquid shares, often from the SME sector, and where exactly the threshold for that class should be set. As a consequence of setting a class with an ADT range of below €100,000, ESMA would then create a new ADT class with a range of €100,000 to €500,000.
38. In respect of the finding in paragraph 34.ii above, Chart 2 shows that there is a relatively high concentration of shares at the lower end of the €1 to €25m ADT category. ESMA therefore proposes creating new classes of €1 to €5m and €5 to €25m ADT.
39. In respect of the finding in paragraph 34.iii above, ESMA proposes creating an additional class of ‘super liquid’ shares, starting at an ADT of €100m. This new class of ‘super liquid’ shares would have a pre-trade threshold of €650,000. As a consequence, a new ADT class of €50 to €100m would be created.
40. ESMA’s above proposals would result in a new pre-trade transparency large in scale table, (replacing the existing Table 2 in Regulation (EC) No 1287/2006), as below:

Class in terms of ADT in €	below 100,000	100,000 to 500,000	500,000 to 1,000,000	1,000,000 to 5,000,000	5,000,000 to 25,000,000	25,000,000 to 50,000,000	50,000,000 to 100,000,000	above 100,000,000
Large in scale threshold in €	30,000	60,000	100,000	200,000	300,000	400,000	500,000	650,000

Table 4: ESMA proposal for new pre-trade transparency large in scale table

41. The two tables below display a) the percentage of instruments falling within each of the ADT classes, proposed by ESMA in the table above, in the years from 2008 to 2013 and 2) the percentage of turnover represented by the instruments in each of the ADT classes.

Num of shares per ADT class	ADT <100,000	100,000=< ADT <500,000	500,000=< ADT <1,000,000	1,000,000=< ADT <5,000,000	5,000,000=< ADT <25,000,000	25,000,000=< ADT <50,000,000	50,000,000=< ADT <100,000,000	ADT >= 100,000,000
2008	46.15%	19.45%	5.45%	10.07%	6.96%	2.14%	1.53%	1.67%
2009	55.40%	14.12%	4.54%	8.08%	5.66%	2.04%	1.11%	1.52%
2010	58.86%	14.15%	4.01%	6.99%	5.55%	1.41%	1.05%	1.04%
2011	56.46%	14.79%	4.04%	7.56%	6.02%	1.67%	1.18%	1.32%
2012	59.86%	12.81%	3.98%	6.82%	5.56%	1.77%	0.81%	1.26%
2013	60.82%	12.35%	3.28%	6.45%	5.70%	1.69%	0.91%	1.17%

Percentage of shares per ADT class – source MiFID database

Turnover per ADT class	ADT <100,000	100,000=< ADT <500,000	500,000=< ADT <1,000,000	1,000,000=< ADT <5,000,000	5,000,000=< ADT <25,000,000	25,000,000=< ADT <50,000,000	50,000,000=< ADT <100,000,000	ADT >= 100,000,000
2008	0.15%	0.58%	0.49%	3.07%	10.49%	9.75%	13.63%	61.83%
2009	0.17%	0.47%	0.47%	2.83%	10.12%	10.55%	11.63%	63.76%
2010	0.25%	0.70%	0.64%	3.68%	13.97%	10.99%	15.70%	54.07%
2011	0.21%	0.61%	0.50%	3.10%	12.59%	10.38%	14.64%	57.98%
2012	0.23%	0.57%	0.54%	3.13%	12.95%	12.14%	11.19%	59.24%
2013	0.24%	0.61%	0.51%	3.21%	15.05%	13.47%	13.62%	53.29%

Percentage of turnover per ADT class – source MiFID database

Q50: Do you think there is merit in creating a new ADT class of 0 to €100,000 with an adequate new large in scale threshold and a new ADT class of €100,000 to €500,000? At what level should the thresholds be set? Please provide reasons for your answer.

Q51: Do you think there is merit in creating new ADT classes of €1 to €5m and €5 to €25m? At what level should the thresholds be set? Please provide reasons for your answer.

Q52: Do you think there is merit in creating a new ADT class for ‘super-liquid’ shares with an ADT in excess of €100m and a new class of €50m to €100m? At what level should the thresholds be set?

Q53: What comments do you have in respect of the new large in scale transparency thresholds for shares proposed by ESMA?

ETFs

42. In order to set pre-trade transparency large in scale thresholds for ETFs ESMA has collected post-trade data from RMs³⁵. The analysis includes 1131³⁶ ETFs covering 11 different EU countries³⁷ and the period of reference is January-December 2013.

³⁵ Data from MTFs is not included

³⁶ Please be aware that an ETF with the same ISIN listed in different trading venues is not counted twice

³⁷ Germany, Spain, Finland, France, Italy, Netherlands, Belgium, Great Britain, Ireland, Portugal and Sweden

43. The analysis required two steps: (i) identification of the classes in terms of ADT³⁸; and (ii) the determination of a large in scale threshold for each ADT class.
44. In relation to calibrating the ADT classes ESMA identified two scenarios: one with 5 and one with 4 ADT classes³⁹. The scenarios aim at achieving a balance between granularity and simplicity and having a uniform distribution of instruments in each class.
45. The subsequent step was the selection of the large in scale thresholds for each ADT class. The thresholds were determined as to leave roughly (i) 10%; (ii) 20%; and (iii) 30% of the turnover of the corresponding class above the threshold [Please refer to tables 11 and 12 - for the details of the results]. In order to perform this analysis ESMA collected statistics⁴⁰ related to the distribution of the trades for each ETF⁴¹.
46. As a result, 3 tables for each of the 2 scenarios were developed:

Scenario A – 30% of turnover above threshold					
Class in terms of ADT	ADT < 50,000	50,000 ≤ ADT < 200,000	200,000 ≤ ADT < 500,000	500,000 ≤ ADT < 2,000,000	ADT ≥ 2,000,000
LIS threshold	140,000	250,000	340,000	380,000	600,000

Scenario A – 20% of turnover above threshold					
Class in terms of ADT	ADT < 50,000	50,000 ≤ ADT < 200,000	200,000 ≤ ADT < 500,000	500,000 ≤ ADT < 2,000,000	ADT ≥ 2,000,000
LIS threshold	190,000	330,000	480,000	530,000	820,000

Scenario A – 10% of turnover above threshold					
Class in terms of ADT	ADT < 50,000	50,000 ≤ ADT < 200,000	200,000 ≤ ADT < 500,000	500,000 ≤ ADT < 2,000,000	ADT ≥ 2,000,000
LIS threshold	260,000	550,000	750,000	850,000	1,200,000

³⁸ Calculated as the yearly turnover, divided by the number of trading days in the period excluding NTs

³⁹ ADT was calculated by aggregating data for the same ETF³⁹ across the different RMs. Aggregation has been done at the ISIN level

⁴⁰ Percentiles defined as follows were collected: the trade value V above which (100 - p)% of the trades have a value greater than V. e.g. in the case of the 90th percentile corresponds to the trade value above which 10% of the trades have a value greater than that

⁴¹ Each ETF is identified by a different ISIN. For each ISIN the statistics related to the most relevant market in terms of liquidity (i.e. highest turnover value over the period considered) were used as to estimate the results provided in tables 11 and 12

Scenario B – 30% of turnover above threshold				
Class in terms of ADT	ADT < 200,000	200,000 ≤ ADT < 500,000	500,000 ≤ ADT < 1,000,000	ADT ≥ 1,000,000
LIS threshold	230,000	340,000	380,000	570,000

Scenario B – 20% of turnover above threshold				
Class in terms of ADT	ADT < 200,000	200,000 ≤ ADT < 500,000	500,000 ≤ ADT < 1,000,000	ADT ≥ 1,000,000
LIS threshold	300,000	480,000	530,000	800,000

Scenario B – 10% of turnover above threshold				
Class in terms of ADT	ADT < 200,000	200,000 ≤ ADT < 500,000	500,000 ≤ ADT < 1,000,000	ADT ≥ 1,000,000
LIS threshold	500,000	750,000	800,000	1,180,000

47. From the above large in scale the results indicate that ETFs are characterised by large (in value) trades. Indeed, looking at the statistics on the distribution of trades, show that 70% of ETFs have an ADT above €100,000 and that the average value of the top 1% trades is very close to or above the top bound of the related ADT range selected [Please refer to Table 13 for more details].

Q54: Do you agree with the ADT ranges selected? Do you agree with the large in scale thresholds set for each ADT class? Which is your preferred option? Would you calibrate the ADT classes and related large in scale thresholds differently? Please provide reasons for your answers, including describing your own role in the market (e.g. market-maker, issuer etc).

Certificates

48. As discussed in the CP, to date ESMA has identified only two types of instruments falling within the category of certificates: Spanish *Participaciones Preferentes* and German *Genussscheine*. ESMA's preliminary analysis on these two types of certificates indicates that the number of instruments within this asset class is small, and that trading activity is limited.
49. The statistics set out in the table below indicate that most certificates are characterised by an ADT⁴² below €10,000:

⁴² Calculated as the yearly turnover, divided by the number of trading days in the period excluding NTs

ADT		Number of certificates	% of certificates
above	1,000,000	0	0.00%
between	500,000 and 1,000,000	2	2.38%
between	50,000 and 500,000	7	8.33%
between	10,000 and 50,000	11	13.10%
between	5,000 and 10,000	5	5.95%
between	1,000 and 5,000	17	20.24%
between	1,000 and 1	19	22.62%
equal to	0	23	27.38%
Total number of certificates		84	100%

Table 5: Average daily turnover (€) distribution

50. Based on the above findings, ESMA proposes below two scenarios regarding the number and range of ADT classes for which the related large in scale thresholds for pre- and post-trade transparency could be set:

SCENARIO 1			
ADT < 1,000	1,000=< ADT < 5,000	5,000=< ADT < 50,000	ADT >= 50,000
19	17	16	9
22.62%	20.24%	19.05%	10.71%

(*) Please note that the number of certificates with ADT < € 1,000 does not include those with ADT equal to zero

SCENARIO 2		
ADT < 2,500	2,500=< ADT < 50,000	ADT >= 50,000
25	27	9
29.76%	32.14%	10.71%

(*) Please note that the number of certificates with ADT < € 2,500 does not include those with ADT equal to zero

Q55: Which is your preferred scenario? Would you calibrate the ADT classes differently? Please provide reasons for your answers.

Q56: Do you agree that the same ADT classes should be used for both pre-trade and post-trade transparency? Please provide reasons for your answers.

Q57: How would you calibrate the large in scale thresholds for each ADT class for pre- and post-trade transparency? Please provide reasons for your answers.

Frequency of the calibration of large in scale thresholds

51. The five ADT classes for and the minimum sizes for large in scale orders per class were set in 2007 under MiFID I and have not been reviewed subsequently. Under the current regime the appropriateness of the thresholds for large in scale orders is safeguarded by shares moving from one band to the other as the liquidity characteristics for each share change. With the MiFID review, ESMA is considering whether, and how frequently, the minimum size of large in scale orders and the range for each class should be re-calibrated so that the new regime takes into account cyclical changes in market liquidity. The average order size is a continuous variable subject to change; however, under MiFID I the large in scale thresholds have remained the same since 2007, based on data from a previously observed period. ESMA notes that many market participants are of the view that there is a need to update these large in scale thresholds regularly to capture changes in market liquidity.
52. ESMA wishes to emphasise that the thresholds will be fixed in a Level 2 implementing measure and so re-calibrating the thresholds will necessitate a change of the law which will require a set period of time and cannot be executed at frequent intervals. Therefore ESMA notes the value of a periodic review of the future implementing measure which would trigger a review of the thresholds and could lead to an ESMA initiative for an amendment of the implementing measure if the thresholds are deemed to require re-calibration. ESMA considers that such a review should be conducted no earlier than two years after the application of MiFIR and Level 2 in practice and not be more frequent than at two year intervals thereafter.

Frequency of the reclassification calculation per financial instrument

53. Under MiFID I, the ADT is calculated for each share on an annual basis. However, ESMA notes that again some market participants consider that the ADT calculation to determine whether financial instruments should be reclassified should be performed more frequently, given that markets are often subject to sudden and persistent changes in liquidity. A more frequent calculation would provide greater sensitivity to changes in the markets but, on the other hand, would: require more resources and greater operational flexibility by market participants (uncertainty), be more sensitive to temporary effects (seasonality), and consequently be more costly.
54. The current ADT calculation performed under MiFID I is based on volumes traded in the previous year. An alternative approach would be to change the period of time used for the calculations (e.g. a quarterly calculation exercise using data from the previous 12 months, a quarterly calculation exercise using data from the previous 3 months or a different combination of frequency and period). A shorter period would be more manageable in terms of volume of information but there is a risk that the results could be subject to some spurious change in liquidity due to seasonality. ESMA is of the initial opinion that an annual calculation remains appropriate.

Q58: Do you agree with ESMA’s view that the large in scale thresholds (i.e. the minimum size of orders qualifying as large in scale and the ADT classes) should be subject to a review no earlier than two years after MiFIR and Level 2 apply in practice?

Q59: How frequently do you think the calculation per financial instrument should be performed to determine within which large in scale class it falls? Which combination of frequency and period would you recommend?

Large in scale stubs

- 55. ESMA notes that some large orders, conducted under the large in scale waiver, are only partially executed and believes it is appropriate to provide a consistent approach through MiFIR to clarify the treatment of such ‘stubs’ once they fall below the relevant large in scale threshold.
- 56. In addition to the right of the market participant to retract the order before it becomes transparent, ESMA considers there are three possible options with regard to how the large in scale waiver might apply to the stub:
 - i. the stub remains protected by the large in scale waiver;
 - ii. the transparency regime applies to the stub once its size drops below the large in scale threshold; or
 - iii. the transparency regime applies to the stub once its size drops below a certain level, e.g. 25%, below the large in scale threshold applicable to that particular instrument.
- 57. ESMA is seeking views on whether a stub should be subject to the pre-trade transparency regime if its residual size is below the relevant large in scale threshold. ESMA considers the potential advantages and disadvantages of the different treatment of the stub orders to be those set out in the table below.

	Stub orders remain protected by the large in scale waiver	Stub orders are displayed
Potential advantages	<ul style="list-style-type: none"> • It would provide a consistent treatment for the whole order, avoiding potential costs of a separate execution or even clearing and settlement. • Displaying stub orders could provide indications of large in scale activity which would subtract from the efficacy of the waiver (e.g., flagging the order as large in scale). 	<ul style="list-style-type: none"> • Displaying stub orders could contribute positively to the price discovery process as another source of pricing. • In cases where these stub orders move to the displayed part of the order book (e.g. from the block execution segment), they would contribute to increasing displayed liquidity and there would be a general improvement of implicit transaction costs (i.e. narrowing of spreads). • There would be equal treatment between orders pending execution

		of similar size.
Potential disadvantages	There would be an open way to circumvent the transparency regime by adding volume to an order to reach the large in scale threshold.	Large in scale traders would, in order to minimise market impact, be forced to execute large orders through a number of smaller orders, incurring higher explicit and implicit costs with the effect of reducing available liquidity in the market.

Table 6: Pre-trade transparency large in scale regime - stubs

58. ESMA is of the opinion that an appropriate compromise would be to require stubs be made transparent where they are a certain percentage, e.g. 25%, below the large in scale threshold. With such an approach, more volume would be displayed on the lit order book while at the same time providing more protection for the initiator of the order against adverse market impact and ensuring that order stubs are not introduced into the lit book at a level just a fraction below the large in scale size.

Q60: Do you agree with ESMA’s opinion that stubs should become transparent once they are a certain percentage below the large in scale thresholds? If yes, at what percentage would you set the transparency threshold for large in scale stubs? Please provide reasons to support your answer.

Reference price waiver

Analysis

- 59. Under the MiFID I regime, Article 18(1)(a) of Regulation (EC) No 1287/2006 specifies that a waiver from pre-trade transparency can be granted for a system matching orders in accordance with a reference price generated by another system, where that reference price is widely published and is generally regarded as a reliable reference.
- 60. ESMA notes that in MiFIR these requirements have been partially moved up to the framework regulation but also have been supplemented by a number of additional requirements, designed to ensure that the use of the reference price waiver remains limited in volume and does not impede the quality of the price discovery mechanism on transparent markets due to a lack of liquidity.
- 61. The following extract from Article 4 of MiFIR is relevant for designing implementing measures:

Article 4, MiFIR

1. Competent authorities shall be able to waive the obligation for market operators and investment firms operating a trading venue to make public the information referred to in Article 3(1) for:

(a) systems matching orders based on a trading methodology by which the price of the financial instrument referred to in Article 3(1) is derived from the trading venue where that financial instrument was first admitted to trading or the most relevant market in terms of liquidity, where that reference price is widely published and is regarded by market participants as a reliable reference price. The continued use of that waiver shall be subject to the conditions set out in Article 5.

[...]

2. The reference price referred to in paragraph 1(a) shall be established by obtaining:

(a) the midpoint within the current bid and offer prices of the trading venue where that financial instrument was first admitted to trading or the most relevant market in terms of liquidity; or

(b) when the price referred to in point (a) is not available, the opening or closing price of the relevant trading session. Orders may only reference these prices outside the continuous trading phase of the relevant trading session.

Orders shall only reference the price referred to in point (b) outside the continuous trading phase of the relevant trading session.

[...]

6. ESMA shall develop draft regulatory technical standards to specify the following:

(b) the most relevant market in terms of liquidity of a financial instrument in accordance with paragraph 1(a);

62. ESMA notes that the requirement that the reference price must be widely published and regarded as reliable has been maintained under MiFIR. The only difference is that such elements are codified as an implementing measure under MiFID I (in Article 18(1)(a) of Regulation (EC) No 1287/2006) whereas now they are part of the Level 1 text.
63. Compared to MiFID I, MiFIR narrows down the set of eligible prices that can be used by those reference price systems in two different ways:
- i. any reference price used in the future can only be either (i) the midpoint within the current bid and offer prices of the most relevant market in terms of liquidity or the market where the financial instrument in question was first admitted to trading; or (ii) the open or closing price of the relevant trading session if the trading occurs outside the continuous trading phase; and
 - ii. any reference price used can only be derived from the most relevant market in terms of liquidity or the market of first admission of the financial instrument.
64. Both ESMA and its predecessor CESR have assessed a number of reference price waiver applications under the MiFID I regime⁴³. As far as the assessment of the elements maintained from MiFID I is concerned, such assessment and analysis carried out by CESR and ESMA still appear to be relevant. However MiFIR requires such assessments to be undertaken again, applying the MiFIR regime to determine their continued compatibility with legal requirements. Article 4(7) MiFIR obliges ESMA to perform such re-assessments within 54 months after entry into force of MiFIR (i.e. two years after MiFIR applies in practice).

⁴³ http://www.esma.europa.eu/system/files/2011-241_o.pdf.

Proposal

65. MiFIR requires ESMA to draft RTS specifying the concept outlined in Article 4(6)(b) and specifically, defining what is the most relevant market in terms of liquidity. ESMA notes that specifying the most relevant markets in terms of liquidity is also integral to the transaction reporting regime of Article 26 MiFIR. Article 26(9)(b) requires ESMA to also specify the concept of the most relevant market in terms of liquidity for transaction reporting purposes at Level 2.
66. ESMA however notes that the concept of the most relevant market in terms of liquidity serves different purposes in the context of pre-trade transparency and market integrity. For the purpose of the reference price waiver, the most relevant market in terms of liquidity should be the trading venue with the highest level of liquidity during a certain time period in the relevant financial instrument. ESMA is of the view that liquidity may reliably and easily be measured by the total value of transactions executed by the trading venue. ESMA could make use of the data it receives in order to implement the double volume cap mechanism and publish the most relevant market in terms of liquidity along with the publications under the double volume cap.
67. ESMA is of the preliminary view that, in order to minimise operational costs on trading venues and market participants, the assessment of the most relevant market will occur on an annual basis unless ESMA perceives a radical shift in liquidity.

Q61: Do you agree with ESMA's view that the most relevant market in terms of liquidity should be the trading venue with the highest turnover in the relevant financial instrument? Do you agree with an annual review of the most relevant market in terms of liquidity? Please give reasons for your answer.

Negotiated trade waiver

Analysis

68. A negotiated transaction involves one or more members or participants of a trading venue who negotiate privately the terms of a transaction which is then reported under the rules of the trading venue. For example two members or participants bilaterally agree the price and volume of a trade before transmitting it to the trading venue. In some circumstances the trade could not be executed under the systems operated by the trading venues (e.g. the consolidated limit order book) because of special conditions or requirements attached to the trade (e.g. portfolio trades or contingent transactions like delta-neutral equity hedges of a derivative) or because the transaction does not constitute liquidity addressable by market participants other than the counterparties negotiating the transaction (e.g. a give-up or give-in). The trading venue remains responsible to ensure that all negotiated transactions meet the relevant conditions for the negotiated trade and all the other applicable requirements under MiFID.
69. MiFIR, building on the current MiFID, allows negotiated transactions to waive pre-trade transparency obligations under certain circumstances. In particular Article 4(1) of MiFIR specifies that:

Article 4, MiFIR

1. Competent authorities shall be able to waive the obligation for market operators and investment firms operating a trading venue to make public the information referred to in Article 3(1) for:

[...]

(b) systems that formalise negotiated transactions which are:

(i) made within the current volume weighted spread reflected on the order book or the quotes of the market makers of the trading venue operating that system, subject to the conditions set out in Article 5;

(ii) in an illiquid share, depositary receipt, ETF, certificate or other similar financial instrument that does not fall within the meaning of a liquid market and are dealt within a percentage of a suitable reference price, being a percentage and a reference price set in advance by the system operator; or

(iii) subject to conditions other than the current market price of that financial instrument;

[...]

3. Where trading venues operate systems which formalise negotiated transactions in accordance with paragraph 1(b)(i):

(a) those transactions shall be carried out in accordance with the rules of the trading venue;

(b) the trading venue shall ensure that arrangements, systems and procedures are in place to prevent and detect market abuse or attempted market abuse in relation to such negotiated transactions in accordance with Article 16 of Regulation EU No. .../...;

(c) the trading venue shall establish, maintain and implement systems to detect any attempt to use the waiver to circumvent other requirements of this Regulation or Directive xxx/xxx/EU [new MiFID] and to report attempts to the competent authority.

Where a competent authority grants a waiver in accordance with paragraph 1(b) (i) or (iii), that competent authority shall monitor the use of the waiver by the trading venue to ensure that the conditions for use of the waiver are respected.

70. ESMA notes that under MiFIR, negotiated transactions are subject to some restrictions on admissible execution prices depending on the type of the transaction and the trading characteristics of the financial instrument being traded.
71. Negotiated transactions which are subject to conditions other than the current market price can be executed at any price where otherwise permitted by the rules of the trading venue.
72. Negotiated transactions which are subject to the current market price must instead comply with price conditions depending on whether or not there is a liquid market for the instrument being traded:
 - i. For liquid financial instruments negotiated transactions must be executed within the spread - Negotiated transactions falling under this limb are subject to the double volume cap mechanism as described in the relevant section of this paper.

- ii. For illiquid financial instruments negotiated transactions can be executed at any price falling within a certain percentage of a suitable reference price provided both the reference price and the percentage are set in advance by the system operator. ESMA is of the view that operators of trading venues should set the reference price and the percentage in an objective and clear manner having regard to the nature of the market in the financial instrument and its overarching obligation to maintain fair and orderly trading.

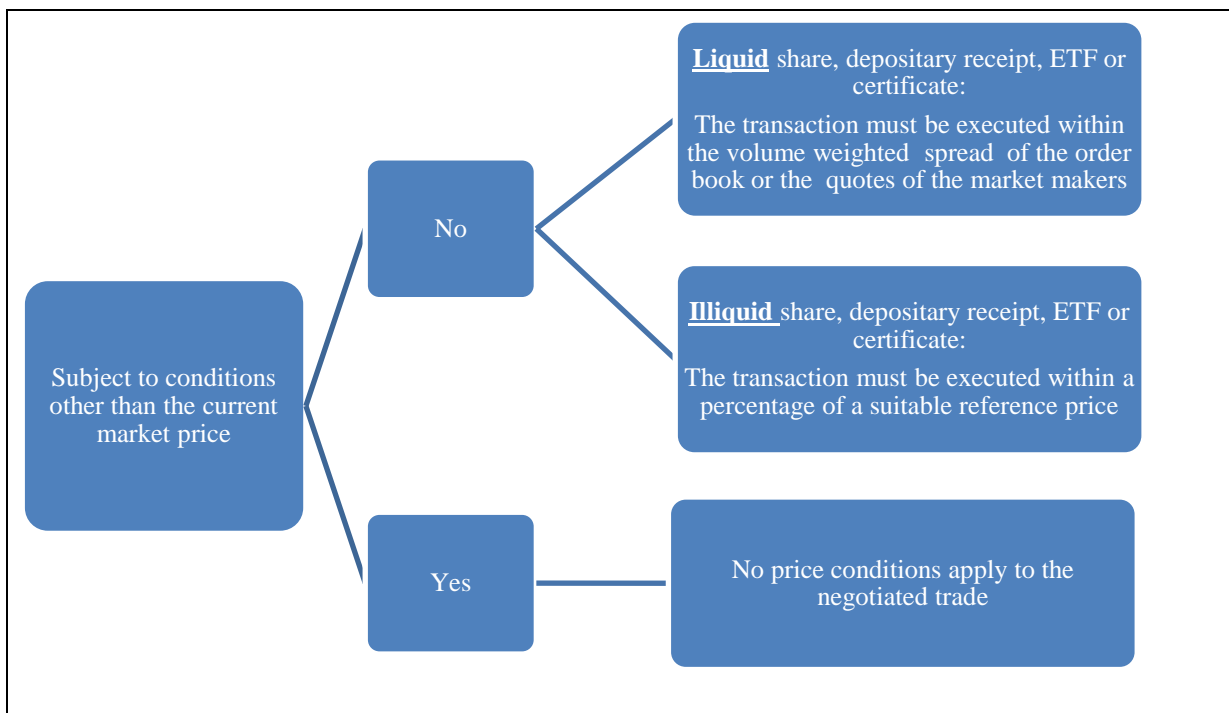


Diagram: Different categories of negotiated trades

- 73. In order to establish a clear regulatory framework and to facilitate compliance with the negotiated trade regime by investment firms and trading venues MiFIR empowers ESMA to develop draft RTS specifying some technical elements of the negotiated transactions.

Article 4, MiFIR

6. ESMA shall develop draft regulatory technical standards to specify the following:

[...]

- (c) the specific characteristics of a negotiated transaction in relation to the different ways the member or participant of a trading venue can execute such a transaction;
- (d) the negotiated transactions that do not contribute to price formation which avail of the waiver provided for under paragraph 1(b)(iii);

Proposal

- 74. With regards to the specific characteristics of a negotiated transaction ESMA is of the view that negotiated transactions shall be executed under the rules of a trading venue and negotiated privately by members or participants of a trading venue. The negotiated trade however shall not be restricted to

transactions between members or participants dealing on own account but may involve a client or clients of the member or participants. For that reason and consistently with the existing framework for negotiated transactions under the Implementing Regulation (EC) No 1287/2006, ESMA is of the view that the member or participant of a trading venue can execute such a negotiated transaction by undertaking one of the following tasks:

- i. dealing on own account with another member or participant who acts for the account of a client;
- ii. dealing with another member or participant, where both are executing orders on own account;
- iii. acting for the account of both the buyer and seller;
- iv. acting for the account of the buyer, where another member or participant acts for the account of the seller; and
- v. trading for own account against a client order.

Q62: Do you agree with ESMA's view on the different ways the member or participant of a trading venue can execute a negotiated trade? Please give reasons for your answer.

75. As discussed above negotiated transactions that are subject to conditions other than the current market price can be executed without any price restriction. However MiFIR empowers ESMA to develop draft RTS in order to clearly identify which negotiated transactions do not contribute to price formation. ESMA, consistently with past opinions developed in the context of the ESMA waiver process for negotiated trades, is considering the following types of transactions as trades which do not contribute to the price formation process:
- i. Give-up/give-in transactions. Transaction where an investment firm passes a client trade to, or receives a client trade from another investment firm for the process of post-trade processing.
 - ii. Securities financing transactions. Lending or borrowing stocks transactions, repurchase or reverse repurchase transactions, or a buy-sell back or sell-buy back trade. These trades are between prearranged counterparties.
 - iii. Benchmark trades, where the price is calculated over multiple time instances according to a given benchmark. In other words, the price is derived over a period of time from post-trade prices according to a specified benchmark and hence does not reflect the current price of the stock. Examples that would be covered are VWAP⁴⁴, TWAP⁴⁵ and CVWAP⁴⁶ trades.
 - iv. Delta-Neutral equity hedges of a derivative. A transaction in shares that corresponds to a hedge against the delta risk of the derivative and where these shares are exchanged by the same two counterparties to the derivative trade, at a price mutually agreed upon at the time of the transaction. The shares related trade is part of a more complex trade where there is a derivatives trade involved. The intention of the investor is that by the combination of a shares and a derivatives

⁴⁴ Volume-weighted average price

⁴⁵ Time-weighted average price

⁴⁶ Consolidated volume-weighted average price.

trade the risk exposure is not sensitive to price movements upwards or downwards (i.e. the investor is taking risk in volatility). The prices of both transactions are pre-arranged by the counterparties.

- v. Exchange for physical trades. Transactions in which the buyer of a security or a basket of securities transfers to the seller a corresponding amount of long derivatives contracts or receives from the seller a corresponding amount of short derivatives, at a price mutually agreed upon.
- vi. Portfolio trades. A transaction in more than one financial instrument where those financial instruments are traded as a single lot against a specific reference price.

Q63: Do you agree that the proposed list of transactions are subject to conditions other than the current market price and do not contribute to the price formation process? Do you think that there are other transactions which are subject to conditions other than the current market price that should be added to the list? Please provide reasons for your answer.

Double volume cap mechanism

Analysis

- 76. In order to ensure that the use of waivers from pre-trade transparency does not unduly harm price formation, MiFIR introduces in Article 5 a mechanism that caps the amount of trading as measured by the volume, carried out under:
 - i. systems matching orders based on a trading methodology by which the price is determined in accordance with a reference price; and
 - ii. negotiated transactions in liquid instruments carried out under limb (i) of Article 4(1)(b) of MiFIR.
- 77. This double volume cap mechanism is to be implemented and supervised on the basis of ESMA publications regarding the volume of trading under the waivers and an empowerment for a technical standard enabling ESMA to obtain the data for making such publications.
- 78. The first volume cap is calculated on a trading venue by trading venue basis and is set at the level of 4% of the overall amount of trading across all trading venues in the EU. That means that the volume of trading on any trading venue using the reference price waiver and/or the first limb of the negotiated trade waiver should not exceed the 4% threshold. As an example a trading venue would be in breach of the 4% threshold when the amount of trading carried out under the reference price waiver and the relevant negotiated trade waiver is 2% and 3% respectively. If the 4% cap is breached by a trading venue in a particular financial instrument, the competent authority that has authorised the use of these waivers shall suspend within 2 working days their use for that trading venue for that particular financial instrument for a period of 6 months.
- 79. The second volume cap is calculated across all trading venues operating under one or both of the relevant waivers and is at the level of 8% of the overall amount of trading across all trading venues in the EU. That means that the total volume of trading on all trading venues using the reference price waiver and/or the first limb of the negotiated trade waiver should not exceed the 8% threshold. As an example the 8% threshold would be considered to be breached when the amount of trading in the EU

carried out under the reference price waiver and the relevant negotiated trade waiver is 4% and 5% respectively. If the 8% cap is breached all competent authorities shall within 2 working days suspend the use of those waivers across the all trading venues in the EU.

80. Both volume caps are measured against a rolling 12 months period with monthly updates published by ESMA.
81. ESMA is aware of the sensitivity of this task and the potential commercial consequences for venues, issuers and other market participants alike of publishing incorrect information which would then lead to the suspension of the use of one waiver or of all waivers across the EU for one particular financial instrument. ESMA therefore considers it as crucial to set up efficient IT structures of high quality in cooperation with trading venues and other stakeholders to ensure timely and correct publication of the required data and undertakes to work with market participants in producing the required technical standard which shall allow for a timely implementation of the double volume cap.
82. In order to effect such publications of actual volume traded within waiver facilities, ESMA is empowered to design technical standards specifying the methods by which ESMA can collate the necessary information, calculate the actual volumes traded and publish the information. The following extracts of Article 5 of MiFIR are relevant for designing implementing measures:

Article 5, MiFIR

1. In order to ensure that the use of the waivers provided for in Article 4(1)(a) and 4(1)(b)(i) does not unduly harm price formation, trading under those waivers is restricted as follows:

(a) the percentage of trading in a financial instrument carried out on a trading venue under those waivers shall be limited to 4% of the total volume of trading in that financial instrument on all trading venues across the Union over the previous 12 months.

(b) overall EU trading in a financial instrument carried out under those waivers shall be limited to 8% of the total volume of trading in that financial instrument on all trading venues across the Union over the previous 12 months.

That volume cap mechanism shall not apply to negotiated transactions which are in a share, depositary receipt, ETF, certificate or other similar financial instrument for which there is not a liquid market as determined in accordance with Article 2(1)(17)(b) and are dealt within a percentage of a suitable reference price as referred to in Article 4(1)(b)(ii), or to negotiated transactions that are subject to conditions other than the current market price of that financial instrument as referred to in Art 4(1)(b)(iii).

[...]

4. ESMA shall publish within five working days of the end of each calendar month, the total volume of Union trading per financial instrument in the previous 12 months, the percentage of trading in a financial instrument carried out across the Union under those waivers and on each trading venue in the previous 12 months, and the methodology that is used to derive those percentages.

5. In the event that the report as referred to paragraph 4 identifies any trading venue where trading in any financial instrument carried out under the waivers has exceeded 3.75% of the total trading in the Union in that financial instrument, based on the previous 12 months trading, ESMA shall publish an

additional report within 5 working days of the 15th day of the calendar month in which the report referred to in paragraph 4 is published. That report shall contain the information specified in paragraph 4 in respect of those financial instruments where 3.75% has been exceeded.

6. In the event that the report referred to paragraph 4 identifies that overall EU trading in any financial instrument carried out under the waivers has exceeded 7.75% of the total EU trading in the financial instrument, based on the previous 12 months trading, ESMA shall publish an additional report within five working days of the 15th on the day of the calendar month in which the report referred to in paragraph 4 is published. That report shall contain the information specified in paragraph 4 in respect of those financial instruments where 7.75% has been exceeded.

[...]

9. ESMA shall develop draft regulatory technical standards to specify the method, including the flagging of transactions, by which it collates, calculates and publishes the transaction data, as outlined in paragraph 4, in order to provide an accurate measurement of the total volume of trading per financial instrument and the percentages of trading that use those waivers across the Union and per trading venue.

Proposal

Volume traded via waiver facilities

83. ESMA considers that each trading venue operating a reference price or relevant negotiated trade waiver facility has to submit the total volume of trading (the volume of individual transactions calculated by multiplying price times number of units and the total volume being the sum of all individual transaction in euro; trading in currencies other than the euro shall be converted into euro by using the ECB monthly average rate) executed via each waiver facility during the relevant 12 months period to ESMA.
84. The volumes collected from the waiver facilities then have to be measured against the volume traded in the on-venue market as a whole. ESMA is taking two different alternatives into consideration for collecting data to determine the overall size of the market per financial instrument.

Alternative 1 – Collation of volume from trading venues

85. One way to collect the entire volume of on-venue trading would be to request all trading venues to submit the total volume of all trading during the relevant 12 months period to ESMA.
86. Requests for submitting such data could be sent to trading venues in parallel with the requests for volumes executed via the waiver facilities. Therefore the quality of data submitted by the venues should be of a sufficiently high standard and consistent.

Alternative 2 – Collation of volumes from CTPs

87. Alternatively, ESMA considers that the entire on-venue trading volume per financial instrument could also be retrieved from the CTPs. This would have the advantage that ESMA would not have to aggregate trading volumes received from a multitude of venues but would receive the complete volume via one channel.

88. In addition, collecting data from CTPs may serve as a tool for checking the validity and completeness of data submitted by trading venues. Therefore ESMA would like to explicitly keep the option open in the future technical standard to collect relevant data from different sources.

Consolidation and calculation of actual volumes by ESMA

89. With regard to the consolidation and calculation of the relevant data for the operation of the volume cap, ESMA is minded to establish technical arrangements seeking to ensure that the data is consolidated on a timely basis and that proper procedures for the identification and correction of errors are in place.
90. To ensure a timely publication of data each month ESMA intends to design templates in a format allowing for a seamless aggregation of volumes across venues which must be completed by stakeholders.

Publication of Information by ESMA

91. Finally with regard to the publication, ESMA will make available to the public on its website free of charge and in a machine-readable format all the necessary information for the operation of the volume cap and the monitoring of the thresholds.

Order management facilities waiver

Analysis

92. MiFID I states that pre-trade transparency may be waived based on the type of order and Regulation (EC) No 1287/2006 clarified that a waiver based on the type of order can be granted only if the order is held in an order management facility pending it being disclosed to the market⁴⁷. Article 4 of MiFIR now specifies that:

Article 4(1), MiFIR

Competent authorities shall be able to waive the obligation for market operators and investment firms operating a trading venue to make public the information referred to in article 3(1) for:

[...]

(d) orders held in an order management facility of the trading venue pending disclosure.

93. ESMA notes that the term ‘order management facility’ which is embedded in the Implementing Regulation (EC) No 1287/2006 under MiFID I has been moved up to the Framework Regulation level under MiFID II. While the MiFID I framework left comparatively wide room for interpretation of what order management facilities are and how they need to be designed to be MiFID compliant, a future implementing measure must now specify the type and minimum size of orders held in a facility in order to be considered MiFID compliant.

⁴⁷ Cf. Article 18(2) Regulation (EC) No 1287/2006.

Proposal

94. In terms of types of orders ESMA, based on its past work and the work of its predecessor CESR⁴⁸, considers that there are two main groups of orders that can be exempted in this context: ‘stop orders’ and ‘reserve or iceberg orders’⁴⁹.
95. ESMA considers a ‘stop order’ to be an order to buy or sell an instrument that remains inactive (i.e. invisible and not executable) and that is activated when the market surpasses a triggering reference. At that moment, the order is disclosed to the market (depending on whether it’s a market or limit order) and interacts with the order book according to the rules applicable to all other orders.
96. ESMA considers an ‘iceberg order’ to be an order where only part of the volume is visible to others and the remainder remains hidden. Once the visible part is executed the system shows another part of the order and so on until the order is fully completed.
97. ESMA notes that within these two main groups there have been variations as to the specific design features which have evolved over the years.

Q64: Do you agree that these are the two main groups of order management facilities ESMA should focus on or are there others?

98. ESMA considers that order management facilities are an integral part of sophisticated order handling and execution in modern markets and do not per se constitute an impediment to pre-trade transparency as upon the triggering event before execution the orders are always disclosed to the market. Therefore the main groups as identified by CESR and ESMA in the past should be maintained.
99. Future implementing measures should not limit evolutions in order management and innovation by prescribing a list of detailed order types which are deemed MiFID compliant but rather describe the main features of stop and iceberg orders in abstract terms as well as the main principles such orders must adhere to in substance and leave the judgement on whether the order type is compliant with MiFID to the process foreseen in Article 4(4) MiFIR.

Q65: Do you agree with ESMA’s general assessment on how to design future implementing measures for the order management facility waiver? Please provide reasons for your answer.

Q66: Are there other factors that need to be taken into consideration for equity-like instruments? Please provide reasons for your answer.

100. The minimum size of orders must be determined for all orders held in an order management facility via implementing measures. ESMA considers that determining the minimum size of orders warrants a different approach for the two main groups of stop and iceberg orders.
101. ESMA is of the opinion that for stop orders the minimum size of orders should be set at a level not higher than the minimum tradable quantity in that trading venue. Taking a stop limit order or a stop market order as an example, whenever the stop price is reached a limit order or a market order is sent

⁴⁸ http://www.esma.europa.eu/system/files/2011-241_o.pdf.

⁴⁹ For ease of reference “reserve or iceberg order” is referred to as “iceberg order” for the remainder of this document.

to the order book. Therefore these orders do not cause a lack of transparency in the order book but are rather a simple yet efficient tool to manage order execution strategies. That is why such functionality should be available to investors from the smallest possible size of an order. If a large minimum size was to be implemented, this would put smaller investors at a disadvantage which would raise concerns from the perspective of level playing field and investor protection.

Q67: Do you agree that the minimum size for a stop order should be set at the minimum tradable quantity of shares in the relevant trading venue? Please provide reasons for your answer.

Q68: Are there additional factors that need to be taken into consideration for equity-like instruments?

102. For iceberg orders, ESMA considers that there are two different criteria which they could be required to meet.
103. The first potential criterion would be the imposition of a minimum size for the overall order volume an iceberg order must have before an iceberg order facility can be used. The second criterion relates to the imposition of minimum requirements for determining the size of each 'peak' of an iceberg that is displayed to the market. ESMA would consider any requirements relating to peak sizes of an iceberg order as relevant criteria of the specific 'type' of order as specified in Article 4(6)(e) MiFIR.
104. In an initial limited fact-finding exercise ESMA found that there are markets currently employing minimum requirements for the overall volume of an iceberg order and those that are applying minimum requirements for determining the peaks (or a combination of the two).
105. In addition, the methods for determining the sizes for the peaks differ and can be an absolute figure for the number of instruments traded or for the amount traded in monetary terms or a figure determined relative to the obligations of market specialists in that trading venue.
106. ESMA at this stage remains undecided as to which minimum size or criteria to impose via implementing measures, the level of detail to which such an imposition at Level 2 should go and which method, if any, to apply. Therefore ESMA would like to take the opportunity of this DP to collect views and to conduct a stock-taking of current practices in all EU markets.

- Q69: Which minimum overall sizes for iceberg orders are currently employed in the markets you use and how are those minimum sizes determined?**
- Q70: Which minimum sizes and which methods for determining them should be prescribed via implementing measures? To what level of detail should such an implementing measure go and what should be left to the discretion of the individual market to attain an appropriate level of harmonisation?**
- Q71: Which methods for determining the individual peak sizes of iceberg orders are currently employed in European markets?**
- Q72: Which methods for determining peaks should be prescribed by implementing measures, for example, should these be purely abstract criteria or a measure expressed in percentages against the overall size of the iceberg order? To what level of details should such an implementing measure go and what should be left to the discretion of the individual market to attain an appropriate level of harmonisation?**
- Q73: Are there additional factors that need to be taken into consideration for equity-like instruments?**

3.2. Post-trade transparency - Equities

Background/Mandate/Empowerment

Article 7(2), MiFIR: Authorisation of deferred publication

2.ESMA shall develop draft regulatory technical standards to specify the following in such a way as to enable the publication of information required under Article 64 of Directive .../.../EU*:

(a) the details of transactions that investment firms, including systematic internalisers and market operators and investment firms operating a trading venue shall make available to the public for each class of financial instrument concerned in accordance with Article 6(1), including identifiers for the different types of transactions published under Article 6(1) and Article 20, distinguishing between those determined by factors linked primarily to the valuation of the financial instruments and those determined by other factors;

(b) the time limit that would be deemed in compliance with the obligation to publish as close to real time as possible including when trades are executed outside ordinary trading hours.

(c) the conditions for authorising investment firms, including systematic internalisers and market operators and investment firms operating a trading venue to provide for deferred publication of the details of transactions for each class of financial instruments concerned in accordance with paragraph 1 of this Article and Article 20(1);

(d) the criteria to be applied when deciding the transactions for which, due to their size or the type, including liquidity profile of the share, depositary receipt, ETF, certificate or other similar financial instrument involved, deferred publication is allowed for each class of financial instrument concerned.

ESMA shall submit those draft regulatory technical standards to the Commission by ...*.

Power is delegated to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with Articles 10 to 14 of Regulation (EU) No 1095/2010.

1. MiFIR delegates power to the Commission to adopt a number of measures establishing the precise content of the post-trade transparency regime which trading venues and investment firms will be subject to in respect of shares and other equity-like instruments traded on a trading venue. ESMA is required to draft RTS for the implementation of the new post-trade transparency regime. These measures include the content and timing of the information to be made public, including identifiers for different types of transactions, as well as the criteria and conditions for the deferred publication of transactions. As a general approach ESMA is of the opinion that shares and other equity-like instruments, such as ETFs, depositary receipts and certificates, should share the same requirements.

Information to be made public – content

Analysis

2. With regard to the content of post-trade information, the current Implementing Regulation (EC) No 1287/2006 requires, under Article 27(1), that investment firms, regulated markets and investment

firms and market operators operating an MTF make public the following details for transactions in shares admitted to trading on a regulated market:

- i. the trading day and time,
 - ii. the instrument identifier,
 - iii. the unit price and price notation,
 - iv. the quantity, and
 - v. the venue identifier (RM, MTF, SI or OTC),
3. ESMA considers the content of the information in trade reports currently required for shares admitted to trading on a regulated market still valid and applicable to other equity-like instruments (ETFs, depositary receipts and certificates).

Q74: Do you agree that the content of the information currently required under existing MiFID is still valid for shares and applicable to equity-like instruments? Please provide reasons for your answer.

Q75: Do you think that any new field(s) should be considered? If yes, which other information should be disclosed?

4. One of the objectives of post-trade information is to help investors identify liquidity pools in order to inform their investment decisions. Under MiFID I, whether the systematic internaliser is identified is left to the investment firms' discretion. According to Article 27 of Regulation (EC) No 1287/2006, by way of exception a systematic internaliser is entitled to use the acronym 'SI' instead of the venue identification. However, the systematic internaliser may exercise that right provided it makes available to the public aggregate quarterly data, no later than one month after the end of each calendar year, as to the transactions executed in that capacity. ESMA notes there is an argument for delaying publication in order not to disclose a systematic internaliser's risk exposure, and that consequently the MiFID I regime should be retained.
5. However, equally, ESMA considers that it is important to provide investors with an overview of liquidity pools in relation to an instrument. Consequently, there is an argument for disclosing the systematic internaliser's identity in the post-trade information. Further, given that for pre-trade transparency purposes, Article 13 MiFIR requires systematic internalisers to publish their quotes for equity and equity-like instruments for which there is a liquid market, it would be consistent to align the post-trade transparency requirement with that of the pre-trade in requiring the systematic internaliser to disclose its identification.

Q76: Do you think that the current post-trade regime should be retained or that the identity of the systematic internaliser is relevant information which should be published? Please provide reasons for your response, distinguishing between liquid shares and illiquid shares.

6. Articles 7(2) and 20(3)(a) MiFIR also require ESMA to draft RTS specifying the identifiers for transactions primarily linked to the valuation of instruments and for transactions determined by factors other than the valuation of the instruments.

7. The existing Implementing Regulation already requires regulated markets, MTFs and investment firms to publish additional information in the form of flags with regard to transactions determined by: factors other than the current valuation of the share, negotiated trades, and amendments to previously disclosed information. ESMA believes that the introduction of a new set of identifiers should primarily aim to improve the efficiency of price discovery, support firms achieving best execution for their clients and allow clients to monitor whether they are receiving best execution. Moreover identifiers should assist competent authorities in monitoring market developments such as the extent to which waivers from pre-trade transparency are used.
8. The issue of identifiers was addressed in October 2010 by CESR in its technical advice to the Commission on post-trade transparency standards (CESR/10-882). The technical advice, which benefitted from discussions with the CESR/Industry working group, recommended the introduction of a number of new identifiers that could provide useful additional information to market participants. Those identifiers refer to benchmark trades, agency cross trades, technical trades for non-addressable liquidity and dark trades.
9. ESMA is of the opinion that the CESR technical advice remains valid. ESMA is considering whether a more detailed set of flags identifying transactions carried out under each of the permissible waivers from pre-trade transparency may improve the information content of trade reports and assist competent authorities in monitoring the extent to which waivers from pre-trade transparency are used except for orders held in an order management facility pending disclosure for which ESMA does not consider it necessary to propose an identifier. It will be possible for market participants to use a combination of flags where the transaction meets more than one of the criterion requiring flagging.
10. In consideration of Article 4(a) MiFIR, which sets a volume cap (the volume cap mechanism) on the volume of trades executed in a non-transparent manner, ESMA deems it necessary to identify trades executed under the reference price waiver and the negotiated trade waiver in order to be able to make the appropriate calculations. Although the volume cap mechanism is applicable to all trades executed under the reference price waiver, it only applies to certain transactions executed under the negotiated trade waiver. The use of the negotiated trade waiver is limited to transactions on liquid instruments. Thus, ESMA suggests setting three distinct flags to identify the three types of transactions executable under this waiver.
11. The table below presents the proposed trade flags

Identifier	Name of trade flag	Venue/Publication arrangement	Definition
'B'	Benchmark trade flag	RM, MTF, APA	All kinds of volume weighted average price transactions and all other trades where the price is calculated over multiple time instances according to a given benchmark
'X'	Agency cross trade flag	RM, MTF, APA	Trades where an investment firm has brought together two clients' orders with the purchase and the sale conducted as one transaction and involving the same volume and price.

'G'	Give-up/give-in trade flag	RM, MTF, APA	All transactions where an investment firm passes a client trade to, or receives a client trade from another investment firm for the process of post-trade processing.
'E'	Ex/cum dividend trade flag	RM, MTF, APA	<p>All transactions that occur between the declaration date and the payment date of a dividend for that share, whereby the price of the transaction does not reflect the conventional inclusion (before the ex-date) or exclusion (on or after the ex-date) of the dividend in the share price, that is to say either for:</p> <ul style="list-style-type: none"> - Ex-dividend trades before the ex-date: transactions before the ex-date for which the declared dividend belongs to the seller rather than the buyer. - Cum-dividend trades on or after the ex-date: transactions on or after the ex-date for which the buyer is entitled to receive the dividend that has been declared for the stock, but not paid.
'T'	Technical trade flag	RM, MTF, APA	Category covering trades which either represent non-addressable liquidity or ones where the exchange of financial instrument is determined by factors other than the current market valuation of the instrument. Non-exhaustive examples of such trades may include OTC hedges of a derivative, inter-fund transfers, equity hedge trades related to the creation/redemption of ETFs and Exchange for Physical trades.
'L'	Large in scale trade flag	RM, MTF	Transactions executed under the pre-trade large in scale waiver. Both sides of the transactions do not necessarily need

			to be LIS transactions.
‘R’	Reference price trade flag	RM, MTF	Transactions executed under the reference price waiver and which are subject to the volume cap mechanism.
‘NTV’	Negotiated trades volume weighted spread or market makers quotes	RM, MTF	Transactions executed under the negotiated trade waiver and which are made within the volume weighted spread reflected in the order book or within the quotes of the market makers of the trading venue. These transactions are subject to the volume cap mechanism.
‘NTI’	Negotiated trades on illiquid equity	RM, MTF	Transactions executed under the negotiated trade waiver on an illiquid financial instrument.
‘NTC’	Conditioned Negotiated Trade	RM, MTF	Transactions executed under the negotiated trade waiver which are subject to conditions others than the current market price of that financial instrument.
‘C’	Cancellation flag	RM, MTF, APA	Transaction cancelled.
‘A’	Amendment flag	RM, MTF, APA	Transaction amended.

Table 7: Proposed trade flags

Q77: Do you agree with the proposed list of identifiers? Please provide reasons for your answer.

Q78: Do you think that specific flags for equity-like instruments should be envisaged? Please justify your answer.

- ESMA proposes to flag large in scale trades, i.e. trades that were not pre-trade transparent due to their size, as noted above under the proposed identifier ‘L’. ESMA is of the view that it may also be useful to flag trades that make use of the large in scale deferral as a flag would facilitate identification of trades subject to deferred publication, making it easier to identify that the trade is off the current market price due to its delayed publication.

Q79: Do you support the proposal to introduce a flag for trades that benefit from the large in scale deferral? Please provide reasons for your response.

- ESMA is aware of the existence of industry initiatives aimed at improving the content and quality of post-trade reports. While endorsing the CESR technical advice on identifiers of types of transactions, those initiatives have proposed a more extensive hierarchy of trade flags than the one put forward in

the CESR report. In particular the Market Model Typology project (MMT) organised under the auspices of the Federation of European Securities Exchanges (FESE) proposes a more granular approach where ad hoc flags identify the market mechanism (central limit order book, quote driven market, dark order book and off book) and trading mode (e.g. continuous trading, call auction, off and on-exchange trade reporting).

Q80: What is your view on requiring post-trade reports to identify the market mechanism, the trading mode and the publication mode in addition to the flags for the different types of transactions proposed in the table above? Please provide reasons for your answer.

14. Article 20(3)(b) MiFIR also requires ESMA to draft RTS specifying the elements of the obligation under Article 20(1) of MiFIR for transactions involving the use of those financial instruments for collateral, lending or other purposes where the exchange of financial instruments is determined by factors other than the current market valuation of the instrument. ESMA understands this empowerment allows ESMA to specify how the obligation of Article 20(1) of MiFIR applies to securities financing transactions where there is a legal transfer of the financial instrument but the transaction is carried out for the purpose of lending or borrowing liquidity.

Q81: For which transactions captured by Article 20(1) would you consider specifying additional flags as foreseen by Article 20(3)(b) as useful?

Timing

Analysis

15. Under MiFID I, post-trade information relating to transactions taking place on trading venues and within normal trading hours must be made available as close to real time as possible⁵⁰. ESMA is of the opinion that the market opening hours as published by the market operator should be considered as 'normal trading hours'. For OTC, 'normal trading hours' should be considered as the hours applicable to the most relevant market in terms of liquidity for the concerned instrument. MiFIR further clarifies that post-trade information shall be made public as close to real-time as technically possible. ESMA acknowledges that delays to real-time reporting are permissible in exceptional circumstances, i.e. where the systems available do not allow for a real-time publication. MiFID I requires that post-trade information must be available in any case within three minutes of the relevant transaction.

Proposal

16. In line with the previous CESR technical advice to the Commission on equity markets (CESR/10-208) ESMA is of the opinion that in order to improve the quality of post-trade information and the overall market transparency the maximum permissible delay should be shortened to 1 minute of the relevant transaction for equity and equity-like instruments.

⁵⁰ Article 29(2) MiFID Implementing Regulation 1287/2006.

Q82: Do you agree with the definition of “normal trading hours” given above?

Q83: Do you agree with the proposed shortening of the maximum permissible delay to 1 minute? Do you see any reason to have a different maximum permissible deferral of publication for any equity-like instrument? Please provide reasons for your answer

Deferred publication regime

Analysis

17. MiFIR introduces the possibility of deferred publication for shares and equity-like instruments based on their type or size. The empowerment in Article 7(2)(c) and (d) of MiFIR is similar to that currently applicable to shares admitted to trading on a regulated market based on the size of the transaction and the average daily turnover of the underlying instrument.

Shares and Depositary Receipts

18. This section deals with the adjustment of the post-trade transparency large in scale regime for shares under MiFID II. ESMA intends to apply the same regime that is ultimately decided on for shares also to depositary receipts. Therefore all the considerations on future ADT classes, thresholds and deferrals for shares in the following section should be read as applying identically to depositary receipts.
19. According to the current MiFID I regime any transaction in shares admitted to trading on a regulated market can benefit from a deferred publication provided that two criteria are met:
 - i. the size of the transaction is not smaller than the relevant minimum qualifying threshold as specified in table 4 of Annex II of the Implementing Regulation (EC) No 1287/2006; and
 - ii. the transaction is between an investment firm that deals on own account and a client of the investment firm.
20. With regard to the conditions for authorising investment firms and market operators and investment firms operating a trading venue for deferred publication, ESMA is of the opinion that transactions between an investment firm that deals on its own account and a client of the investment firm should benefit from deferred publication as is currently the case under the existing regime for shares admitted to trading on a regulated market. This deferral will protect large transactions, as defined according to the criteria set below, where an investment firm is assuming market risk in order to facilitate a client transaction.

Q84: Should the deferred publication regime be subject to the condition that the transaction is between an investment firm dealing on own account and a client of the firm? Please provide reasons for your answer.

21. ESMA refers to CESR’s technical advice in 2010 (CESR\10-802) in respect of the criteria for deferred publication and considers that although there is justification for delaying publication in order to unwind large positions, there is a concern that currently, such delays are often too long to ensure adequate transparency. CESR considered that the overall benefit of improved transparency and reduced information asymmetries across the market outweighs potential costs. The greatest concern was in relation to the ‘end of day’ delay for trades executed close to the end of day.

Table 4

Deferred publication thresholds and delays

The table below shows, for each permitted delay for publication and each class of shares in terms of average daily turnover (ADT), the minimum qualifying size of transaction that will qualify for that delay in respect of a share of that type.

		Class of shares in terms of average daily turnover (ADT)			
		ADT < EUR 100 000	EUR 100 000 ≤ ADT < EUR 1 000 000	EUR 1 000 000 ≤ ADT < EUR 50 000 000	ADT ≥ EUR 50 000 000
		Minimum qualifying size of transaction for permitted delay			
Permitted delay for publication	60 minutes	EUR 10 000	Greater of 5 % of ADT and EUR 25 000	Lower of 10 % of ADT and EUR 3 500 000	Lower of 10 % of ADT and EUR 7 500 000
	180 minutes	EUR 25 000	Greater of 15 % of ADT and EUR 75 000	Lower of 15 % of ADT and EUR 5 000 000	Lower of 20 % of ADT and EUR 15 000 000
	Until end of trading day (or roll-over to noon of next trading day if trade undertaken in final two hours of trading day)	EUR 45 000	Greater of 25 % of ADT and EUR 100 000	Lower of 25 % of ADT and EUR 10 000 000	Lower of 30 % of ADT and EUR 30 000 000
	Until end of trading day next after trade	EUR 60 000	Greater of 50 % of ADT and EUR 100 000	Greater of 50 % of ADT and EUR 1 000 000	100 % of ADT
	Until end of second trading day next after trade	EUR 80 000	100 % of ADT	100 % of ADT	250 % of ADT
	Until end of third trading day next after trade		250 % of ADT	250 % of ADT	

Table 8: Deferred publication thresholds and delays under MiFID I

22. In its technical advice to the Commission in 2010, CESR put forward a number of recommendations in this space:

- i. to shorten the maximum delay to the end of the day with only the largest transactions occurring late in the day (15.00 or later) to be published prior to the opening of trading on the next day;
- ii. to shorten the intra-day delay to 120 minutes (instead of 180 minutes as currently set out in Table 4 of Annex II of the Implementing Regulation (EC) No 1287/2006); and
- iii. to raise all intra-day large in scale thresholds.

Class of Shares in terms of average daily turnover (ADT)				
	ADT < EUR	EUR 100 000	EUR 1 000 000	ADT ≥ EUR
	100 000	≤ ADT < EUR 1 000 000	≤ ADT < EUR 50 000 000	50 000 000
Minimum qualifying size of transaction for permitted delay				
60 minutes	EUR 15 000	Greater of 10% of ADT and EUR 30 000	Lower of 15% of ADT and EUR 5 000 000	Lower of 15% of ADT and EUR 10 000 000
120 minutes	EUR 30 000	Greater of 20% of ADT and EUR 80 000	Lower of 25% of ADT and EUR 10 000 000	Lower of 25% of ADT and EUR 20 000 000
Until (a) end of the trading day if trade occurs prior to 15:00; or (b) prior to the opening of trading on the next trading day if trade occurs after 15:00.	EUR 50 000	Greater of 30% of ADT and EUR 120 000	Lower of 35% of ADT and EUR 15 000 000	Lower of 35% of ADT and EUR 35 000 000

Table 9: CESR 's specific recommendation of CESR 10-802 – Table 5

- 23. ESMA's prime concern is to set classes and thresholds which achieve an appropriate balance between ensuring market transparency, preventing any negative impact on the price discovery of large transactions and protecting market participants willing to unwind large positions. To assist with this de-

termination, ESMA has analysed market developments across 2008-2013 using data available from the ESMA MiFID database⁵¹; the results of which are below.

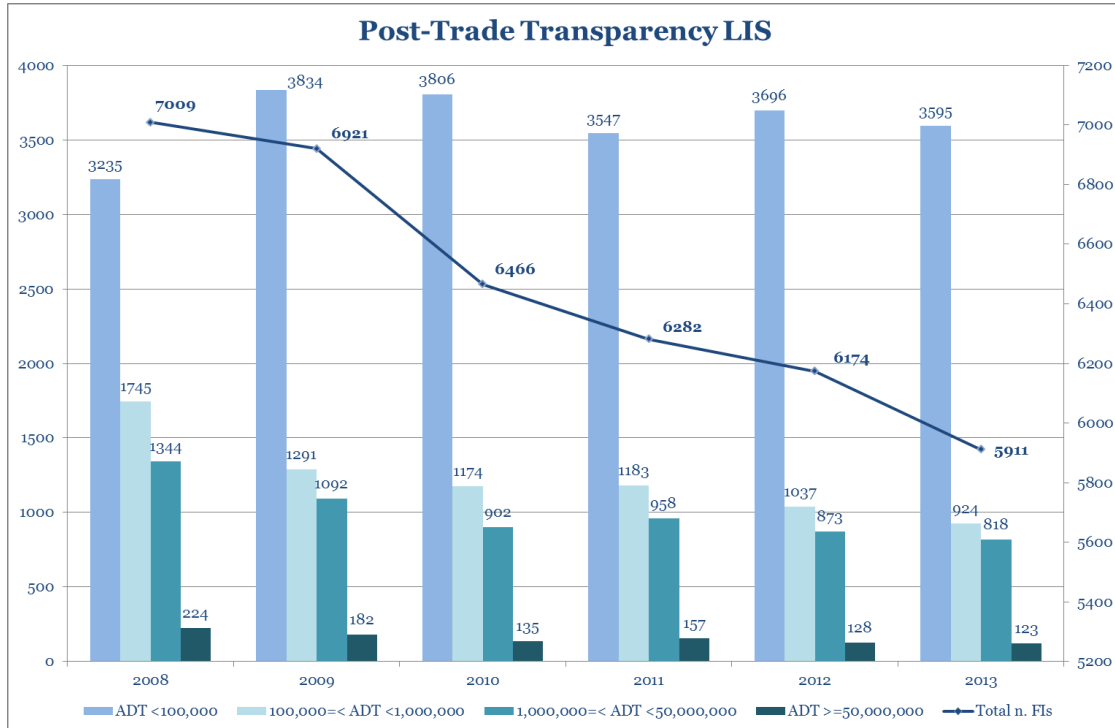


Chart 4: Post-trade transparency large in scale

24. Chart 4 shows the number of shares within each of the four ADT classes under the MiFID I post-trade transparency regime for large in scale transactions for each year from 2008 to 2013.

	ADT <100,000	100,000=< ADT <500,000	500,000=< ADT <1,000,000	1,000,000=< ADT <25,000,000	25,000,000=< ADT <50,000,000	ADT >=50,000,000
2008	46.15%	19.45%	5.45%	17.04%	2.14%	3.20%
2009	55.40%	14.12%	4.54%	13.74%	2.04%	2.63%
2010	58.86%	14.15%	4.01%	12.54%	1.41%	2.09%
2011	56.46%	14.79%	4.04%	13.58%	1.67%	2.50%
2012	59.86%	12.81%	3.98%	12.37%	1.77%	2.07%
2013	60.82%	12.35%	3.28%	12.15%	1.69%	2.08%

Table 10: Percentage of shares within different ADT classes

25. Table 10 provides a more granular picture of the percentage of shares falling within different ADT ranges under the MiFID I post trade transparency regime. The MiFID I pre-trade transparency regime for large in scale transactions has five ADT classes (< €500,000 / €500,000 =< €1m / €1m =< €25m; €25m=< €50m / >= €50m) compared to four ADT classes under the post trade regime. Therefore, to enable comparison with the distribution of shares within the classes under the pre-trade transparency regime, the above table shows the percentage of shares falling below ADT €500,000

⁵¹ <http://mifidatabase.esma.europa.eu/>

(which is the minimum pre-trade transparency ADT class under MiFID I) and between ADT of €25m and €50m, which is a further ADT class under the pre-trade transparency regime.

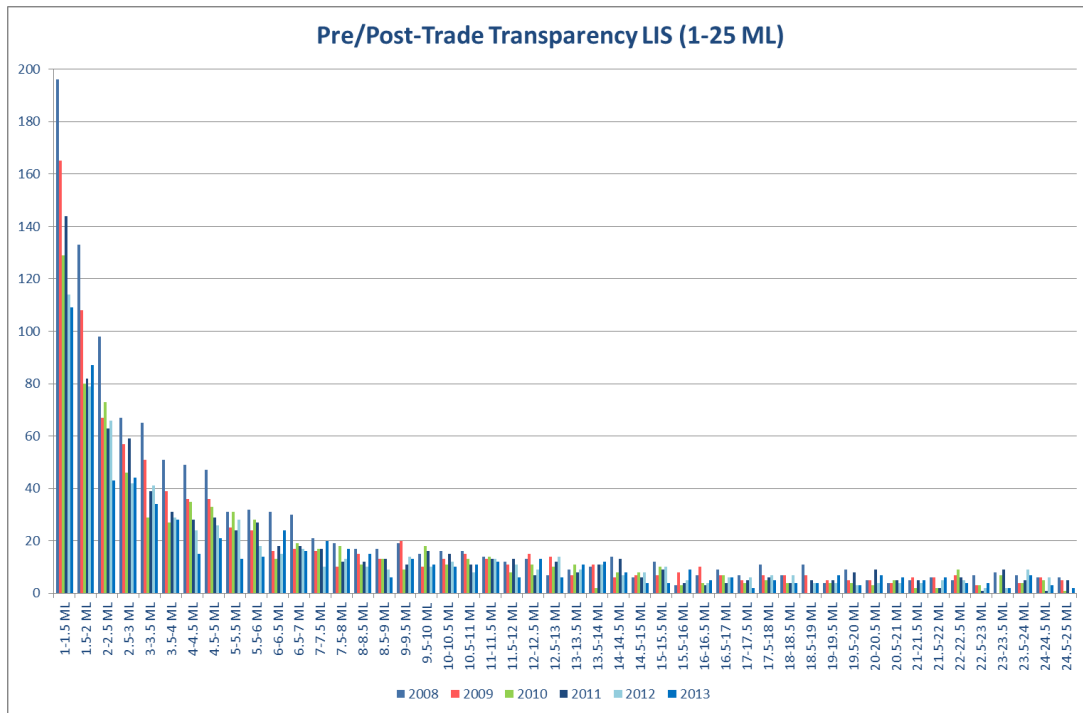


Chart 5: Pre/post-trade transparency large in scale (1-25 ML)

26. Table 10 shows that, after the ADT range from 0 to €500,000 the highest concentration of shares is within the ADT class of €1m to €25m. Therefore, Chart 5 provides further granularity for this ADT range, in classes of €500,000, showing the number of shares per year, between 2008 and 2013.
27. The key findings from the above analysis, in line with the findings from the above analysis undertaken on the existing pre-trade transparency framework for shares, are:
- i. The majority of the shares admitted to trading on regulated markets have an ADT below €100,000 across all the years. The percentage of shares with an ADT below €100,000 has increased from 46% in 2008 to 61% in 2013 (see Table 10).
 - ii. There is a high concentration of shares in the ADT class €1m to €25m. Chart 5 represents the number of shares which have an ADT included in the ranges on the horizontal axis across years 2008-2013.
28. ESMA notes the following in the case of the existing MiFID I framework (compare tables 2 and 4 of the Annex II of Regulation (EC) No 1287/2006).
- i. For the large in scale post-trade deferred publication regime there are four liquidity classes based on ADT, the smallest up to €100,000 and the largest over €50m.

- ii. For the pre-trade large in scale waiver, there are five liquidity classes. The smallest liquidity class in the current framework is for ADT up to €500,000 and the largest is, as for the post-trade deferral, over €50m.
29. Under MiFID I, for the lower ADT classes (which comprise the less liquid shares), it is easier to obtain deferred publication than a pre-trade waiver, given the large in scale size is lower. For very large trades, the reverse is true. The justification for this difference is that for transactions on illiquid instruments, imminent publication may be detrimental to parties who wish to unwind positions. The purpose of deferred publication is to encourage the provision of liquidity to the market by giving the intermediary some time to hedge or unwind its position (see CESR's Technical Advice April 2005, CESR/05-290b). For pre-trade, the justification for the large in scale waiver rests more in the prevention of market impact on the price discovery.

Proposal

30. With regard to the deferred publication periods, ESMA considers it has three alternatives, with one being to maintain the existing table in Regulation (EC) No 1287/2006 in its current form (status quo option). However, ESMA, in line with the CESR advice of 2010, does not favour this alternative and therefore is seeking views on whether it should adopt CESR's advice wholesale or with modifications to the deferral periods CESR recommended.
31. Option A: adopt CESR advice of 2010 to:
- i. shorten the maximum delay to the end of the day with only the largest transactions occurring late in the day (15.00 or later) to be published prior the opening of trading on the next day;
 - ii. shorten the intra-day delay to 120 minutes; and
 - iii. raise all intra-day transaction size thresholds.
32. Option B: adopt CESR advice (Option A) with one modification: extend the deferred publication of the largest transactions from late in the day (15.00 or later) to noon of the next trading day (instead of prior to the opening of trading on the next trading day). This third option reflects feedback received from market participants since the publication of CESR advice in 2010 that CESR's approach would have negative consequences for firms executing large trades late in the trading day, particularly in illiquid stocks.
33. With regard to defining the ADT classes and setting the post-trade thresholds, ESMA could either keep the existing four liquidity bands and adopt the thresholds that were proposed in the CESR Technical Advice of 2010 (Table 5 of CESR 10-802) or adjust the regime based on conclusions from the above analysis.
34. ESMA is considering pursuing a similar approach to that outlined under the pre-trade transparency section. This approach would be based on having the same eight ADT classes on the post-trade side as proposed for pre-trade transparency, meaning that additional classes are created on the illiquid, the moderately liquid and the 'super liquid' end of the scale.
35. The consequence of this latter approach would be additional complexity in terms of the number of liquidity classes but at the same time, this would allow for thresholds to be set more accurately to the actual liquidity of the share in question. ESMA also considers some complexity of the existing regime

would be reduced by aligning pre-trade and post-trade classes and by setting thresholds based on absolute numbers rather than a combination of absolute and relative figures, as is the case under the existing MiFID I table and CESR advice. ESMA considers that this approach could strike the right balance between increasing granularity on the one hand while reducing complexity on the other.

36. Based on this approach, ESMA would propose the following as the new deferred publication thresholds and delays table, replacing Table 4 of Regulation (EC) No 1287/2006 (the layout of the table has been amended compared to Table 4 in order to improve readability; EOD is to be read as end of day publication; end of day publication means a carry-over of the publication to the start of the next trading day or noon of the next trading day if the trade occurs after 15.00 as described in Options A and B above).

Average daily turnover (ADT) in EUR	Minimum qualifying size of transaction for permitted delay	Timing of publication
> 100m	10,000,000	60 minutes
	20,000,000	120 minutes
	35,000,000	EOD
50m – 100m	7,000,000	60 minutes
	15,000,000	120 minutes
	25,000,000	EOD
25m – 50m	5,000,000	60 minutes
	10,000,000	120 minutes
	12,000,000	EOD
5m – 25m	2,500,000	60 minutes
	4,000,000	120 minutes
	5,000,000	EOD
1m – 5m	450,000	60 minutes
	750,000	120 minutes
	1,000,000	EOD
500,000 – 1m	75,000	60 minutes
	150,000	120 minutes
	225,000	EOD
100,000 – 500,000	30,000	60 minutes
	80,000	120 minutes
	120,000	EOD
< 100 k	15,000	60 minutes
	30,000	120 minutes
	50,000	EOD

Table – Proposal deferral post-trade transparency equity large in scale

37. ESMA has determined the above large in scale thresholds using those set out in CESR's advice as a basis, taking into account:
 - i. firstly, that the CESR table only has four ADT classes whereas ESMA's above table has eight ADT classes; and
 - ii. secondly, that the CESR table sets the large in scale threshold per ADT class as a formula combining a fixed threshold and a variable threshold as a percentage of ADT (for example: the greater of 10% ADT and €30 000 for the ADT range between €100,000 and €1m). Such a formula results in a fixed threshold below, or in some cases above, a specified size (the CESR table formula is expressed as "greater than" in some classes and "lower than" in others) and then as a percentage of the ADT above (or below) that specified size, whereas ESMA proposes to set fixed thresholds only under MiFID II.
38. For the ADT class of below €100,000, ESMA has replicated the CESR proposed large in scale thresholds (€15,000 with a 60 minutes delay, €30,000 with a 120 minutes delay and €50,000 with EOD delay).
39. For the other ADT classes, ESMA has formulated a threshold based on considering both the threshold and percentage set in the CESR classes. For example, the CESR ADT class of €100,000 to €1m has been split into two classes under ESMA's above proposal (€100,000 to €500,000 and €500,000 to €1m). For the lower class, ESMA has set the large in scale threshold as €30,000 for shares with an ADT between €100,000 and €500,000, using the CESR fixed threshold as a basis. This reduces transparency for shares with ADT between €300,000 and €500,000 because under CESR's proposal, the large in scale threshold would be required to be 10% of the ADT. However, under the ADT class of between €500,000 to €1m, ESMA has set the large in scale threshold at €75,000, the mid-point of the class range. Setting this fixed threshold of €75,000 means an increase in transparency for shares with ADT between €500,000 and €750,000 and a decrease in transparency for shares with ADT between €750,000 and €1m.
40. ESMA considers that the thresholds determined for deferred publication should be reviewed after MiFIR has been applied in practice for an appropriate period of time and more data is available to ESMA for determining thresholds. Therefore ESMA notes the value of a periodic review of the future implementing measure which would trigger a review of the thresholds and could lead to an ESMA initiative for an amendment of the implementing measure if the thresholds are deemed to require recalibration. ESMA considers that such a review should be conducted no earlier than two years after the application of MiFIR and Level 2 in practice and not be more frequent than at two year intervals thereafter.

Q85: Which of the two options do you prefer in relation to the deferral periods for large in scale transactions (or do you prefer another option that has not been proposed)? Please provide reasons for your answer

Q86: Do you see merit in adding more ADT classes and adjusting the large in scale thresholds as proposed? Please provide alternatives if you disagree with ESMA's proposal

Q87: Do you consider the thresholds proposed as appropriate for SME shares?

Q88: How frequently should the large in scale table be reviewed? Please provide reasons for your answer

Q89: Do you have concerns regarding deferred publication occurring at the end of the trading day, during the closing auction period?

ETFs

41. In light of the analysis carried out by ESMA on ETFs (please refer to the above analysis in the pre-trade transparency section of this DP), ESMA's preliminary view is to apply the same ADT classes for post-trade as proposed for ETFs for pre-trade transparency but to set higher thresholds for the purpose of post-trade transparency.

Q90: Do you agree with ESMA's preliminary view of applying the same ADT classes to the pre-trade and post-trade transparency regimes for ETFs? Please provide reasons for your answer.

Certificates

42. Please refer to the above pre-trade transparency section of this DP where ESMA discusses the number and ranges of ADT classes for certificates.

43. Finally MiFIR includes an empowerment to allow for the deferral of publication based on the "*type of share, depositary receipt, ETF, certificate or other similar financial instrument involved*". A similar empowerment exists under MiFID I, but has not been used. ESMA is considering this empowerment in regard to technical trades as defined previously in the DP. Requiring real time publication for those types of transactions would not enhance price discovery and would possibly require significant costs for market participants.

Annex 3.2.1. Results of the analysis of equity-like instruments

Class in terms of ADT	ADT < 50,000	50,000 <= ADT < 200,000	200,000 <= ADT < 500,000	500,000 <= ADT < 2,000,000	ADT >= 2,000,000
# of ETFs in the class	203	313	236	265	114
Tot Turnover/Tot Trades	11,941	23,338	29,856	38,033	47,850
Average of Tot Turnover/Tot Trades	17,654	43,759	62,472	72,218	94,622
Average ADT	24,107	110,443	315,682	996,153	7,981,019
Total Trades	100,869	362,236	622,773	1,747,828	4,811,398
Total Turnover	1,204,440,198	8,453,929,493	18,593,271,476	66,474,907,326	230,226,104,130
LIS threshold	140,000	250,000	340,000	380,000	600,000
Total turnover above threshold	360,034,718	2,531,590,584	5,485,900,634	19,939,371,608	71,076,321,326
Total num of trades above threshold	1,963	5,421	8,139	25,791	62,530
% of turnover above threshold	29.89%	29.95%	29.50%	30.00%	30.87%
% of trades above threshold	1.95%	1.50%	1.31%	1.48%	1.30%
LIS threshold	190,000	330,000	480,000	530,000	820,000
Total turnover above threshold	233,674,805	1,713,097,573	3,789,209,156	13,604,944,009	46,546,237,253
Total num of trades above threshold	915	2,676	4,177	13,226	29,943
% of turnover above threshold	19.40%	20.26%	20.38%	20.47%	20.22%
% of trades above threshold	0.91%	0.74%	0.67%	0.76%	0.62%
LIS threshold	260,000	550,000	750,000	850,000	1,200,000
Total turnover above threshold	121,635,096	860,099,614	1,911,441,609	6,558,713,213	21,974,486,109
Total num of trades above threshold	337	810	1,527	4,172	9,544
% of turnover above threshold	10.10%	10.17%	10.28%	9.87%	9.54%
% of trades above threshold	0.33%	0.22%	0.25%	0.24%	0.20%

Table 11: Results related to Scenario A

Class in terms of ADT	ADT < 200,000	200,000 <= ADT < 500,000	500,000 <= ADT < 1,000,000	ADT >= 1,000,000
# of ETFs in the class	516	236	161	218
Tot Turnover/Tot Trades	20,856	29,856	37,276	46,303
Average of Tot Turnover/Tot Trades	33,489	62,472	72,567	83,676
average ADT	76,478	315,682	711,754	4,858,827
Total Trades	463,105	622,773	776,857	5,782,369
Total Turnover	9,658,369,692	18,593,271,476	28,958,275,749	267,742,735,707
LIS threshold	230,000	340,000	380,000	570,000
Total turnover above threshold	2,936,019,847	5,485,900,634	8,878,910,341	80,519,815,172
Total num of trades above threshold	6,997	8,139	12,007	72,334
% of turnover above threshold	30.40%	29.50%	30.66%	30.07%
% of trades above threshold	1.51%	1.31%	1.55%	1.25%
LIS threshold	300,000	480,000	530,000	800,000
Total turnover above threshold	2,046,605,190	3,789,209,156	5,928,388,698	53,686,231,029
Total num of trades above threshold	3,664	4,177	5,917	36,023
% of turnover above threshold	21.19%	20.38%	20.47%	20.05%
% of trades above threshold	0.79%	0.67%	0.76%	0.62%
LIS threshold	500,000	750,000	800,000	1,180,000
Total turnover above threshold	1,020,521,055	1,911,441,609	2,916,903,568	26,382,138,516
Total num of trades above threshold	1,078	1,527	2,060	12,021
% of turnover above threshold	10.57%	10.28%	10.07%	9.85%
% of trades above threshold	0.23%	0.25%	0.27%	0.21%

Table 12: Results related to Scenario B

ADT	Num of ETFs	% of ETFs	Average of the values above which lie 1% of the trades	Average value of the top 1% trades
above 2,000,000	114	10.08%	1,112,882	855,885
between 1,000,000 and 2,000,000	104	9.20%	736,202	706,894
between 500,000 and 1,000,000	161	14.24%	750,921	724,586
between 200,000 and 500,000	236	20.87%	697,819	522,656
between 100,000 and 200,000	174	15.38%	503,078	450,037
between 50,000 and 100,000	139	12.29%	408,806	337,279
below 50,000	203	17.95%	198,871	197,582
Total num of ETFs	1,131	100%		

Table 13: ETFs - Average value of trades (€) distribution

3.3. Systematic Internaliser Regime - Equities

Background/Mandate/Empowerment

1. The main purpose of the systematic internaliser regime introduced by MiFID I in 2007 is to ensure that internalisation of order flow by investment firms does not undermine the efficiency of the price formation process for shares admitted to trading on a regulated market. Under the existing regime a systematic internaliser is defined as an investment firm which ‘on an organised, frequent and systematic basis’ deals on own account by executing client orders outside a regulated market or an MTF. The Implementing Regulation No 2006/1287 complements the definition of systematic internaliser by providing a number of qualitative criteria for determining whether an investment firm is acting as a systematic internaliser⁵².
2. MiFIR changes the current systematic internaliser regime in three key ways:
 - i. the asset classes within the scope of the regime;
 - ii. the definition of systematic internaliser; and
 - iii. the pre-trade transparency requirements.
3. Taking these three changes point by point, with regard to asset classes, MiFIR extends the systematic internaliser regime from shares to equity-like instruments such as depositary receipts, ETFs, certificates and other similar financial instruments and also to non-equity instruments. Furthermore, the regime is no longer limited to instruments admitted to trading on a regulated market but now applies to all shares and equity-like instruments that are solely traded on an MTF.
4. With regard to the definition of systematic internaliser, whereas MiFID I set qualitative criteria only, MiFIR establishes quantitative criteria for assessing whether the activity of dealing on own account by executing client orders is frequent, systematic, organised and substantial. ESMA understands that the purpose of introducing quantitative criteria is to establish a clearer legal framework⁵³ which would assist investment firms in assessing whether they need to register as a systematic internaliser in a particular financial instrument and to comply with the relevant pre-trade transparency obligations and other requirements.
5. ESMA also notes that MiFIR allows investment firms to opt-in voluntarily under the systematic internaliser regime when the pre-set quantitative thresholds are not met. ESMA understands that the purpose of this option is to seek to ensure that a sufficient number of systematic internalisers are available in the context of the trading obligation for shares under Article 23 of MiFIR.
6. As a systematic internaliser, an investment firm is subject to a number of requirements. The main requirement is to make public firm quotes in liquid instruments on a regular and continuous basis

⁵² According to Article 21 of the Implementing Regulation an investment firm that deals on own account by executing client orders outside a regulated market or an MTF shall be treated as a systematic internaliser if it performs that activity according to the following criteria: a) the activity has a material commercial role for the firm and is carried on in accordance with non-discretionary rules and procedures; b) the activity is carried out by personnel or by means of an automated technical system; c) the activity is available to clients on a continuous or regular basis.

⁵³ See for example recital 3 of MiFIR.

during normal trading hours. Transparency obligations (as well as all the other requirements attached to the regime) only apply to systematic internalisers when dealing in sizes up to ‘standard market size’. MiFIR largely maintains the core elements of the existing regime for systematic internalisers in relation to standard market size with two important changes. Firstly, a minimum quotation requirement is introduced in the form of 10% of the standard market size for the particular financial instrument. Secondly, systematic internalisers are required to make available two way quotes, a bid price and an offer price, for each instrument for which they are a systematic internaliser.

7. A number of key aspects regarding the pre-trade transparency regime for systematic internalisers require further development at Level 2. While most of those measures take the form of delegated acts to be adopted by the Commission in accordance with Article 50 of MiFIR (discussed in the Consultation Paper), ESMA is empowered to develop draft RTS on certain aspects of the systematic internaliser regime.

Article 14, MiFIR - Obligation for systematic internalisers to make public firm quotes in respect of share, depositary receipts, ETFs, certificates and other similar financial instruments

[...]

7. In order to ensure the efficient valuation of shares, depositary receipts, ETFs, certificates and other similar financial instruments and maximise the possibility of investment firms to obtain the best deal for their clients, ESMA shall develop draft regulatory technical standards to specify further the arrangements for the publication of a firm quote as referred to in paragraph 1, the determination of whether prices reflect prevailing market conditions as referred to in paragraph 3, and of the standard market size as referred to in paragraphs 2 and 4.

[...]

8. Under the above empowerment ESMA is required to develop draft RTS with respect to:
 - i. the arrangements for the publication of a firm quote;
 - ii. when quoted prices reflect prevailing market conditions; and
 - iii. the standard market size.

Arrangements for the publication of a firm quote

9. With regard to the arrangements for the publication of a firm quote, ESMA notes that MiFIR already specifies or delegates through implementing measures various aspects relevant for how systematic internalisers are to make public firm quotes. Those aspects include, among other things, the means by which a quote is made public (Article 17(3)(a) of MiFIR), the minimum quoting requirements (Article 14(3) of MiFIR), the conditions for the execution of orders at sizes different from the quoted one or at prices different to the quoted ones (Article 15(3) and 15(4) of MiFIR respectively) and the exceptional market conditions that allow for the withdrawal of quotes.

Prevailing market conditions

Analysis

10. Under Article 14(3) of MiFIR prices must reflect the ‘prevailing market conditions’ for that instrument. However, Article 15(2) of MiFIR permits systematic internalisers ‘in justified cases’ to execute orders at a better price than those quoted at the time of reception of the order, ‘provided that this price falls within a public range close to market conditions’. ESMA is of the view, therefore, that a key aspect of the publication of a firm quote by a systematic internaliser, given the possibility of relaxing the price improvement restrictions, is to ensure that quoted prices provide meaningful information to systematic internalisers’ clients and more broadly to other market participants.

Proposal

11. For that reason ESMA intends to maintain the existing definition in the Implementing Regulation (EC) No 1287/2006⁵⁴, according to which a quote or quotes reflect prevailing market conditions when they are close in price to comparable quotes for the same share on other trading venues. ESMA does not intend to develop a rigid definition of when a quote reflects prevailing market conditions as it depends on a variety of time-varying and instrument-specific factors which are difficult to capture by any formulaic definition.

Q91: Do you support maintaining the existing definition of quotes reflecting prevailing market conditions? Please provide reasons for your answer.

Standard Market Size

Analysis

12. A key aspect of the systematic internaliser regime is the concept of the standard market size. MiFIR requires systematic internalisers to be subject to pre-trade transparency requirements only when dealing in sizes up to standard market size and to make public quotes - a firm bid and a firm offer - of at least 10% of the standard market size for the share, depositary receipt, ETF or certificate for which they are systematic internalisers.
13. MiFIR requires shares, depositary receipts, ETFs and certificates to be grouped together in classes on the basis of the arithmetic average value of the orders executed in the market for that financial instrument. The standard market size must be of a size representative of the arithmetic average value of the orders executed in the market for the financial instruments included in each class.
14. The current standard market size for shares admitted to trading on a regulated market is set out under Table 3 of Annex II of the Implementing Regulation (EC) No 1287/2006.

Class in terms of average value of transactions (AVT)	AVT<10000	10000≤AVT<20000	20000≤AVT<30000	30000≤AVT<40000	40000≤AVT<50000	50000≤AVT<70000	70000≤AVT<90000	Etc.
Standard market size	7 500	15 000	25 000	35 000	45 000	60 000	80 000	Etc.

⁵⁴ Article 24.

15. As part of the MiFID II review, ESMA is considering whether the classes of the AVT and the standard market size are still appropriate or require adjustment, having regard to both the key objectives of:
 - i. maintaining a sufficient level of transparency; and
 - ii. ensuring that obligations for systematic internalisers remain reasonable and proportionate.
16. Consequently, ESMA has analysed the share data submitted to the ESMA MiFID database⁵⁵, which contains information regarding shares admitted to trading on EU regulated markets, systematic internalisers, multilateral trading facilities and central counterparties, as required under the MiFID directive, since 2007.
17. The results of this analysis (see below) indicate that there have been significant changes in trading patterns since the entry into force of MiFID in 2007. Data submitted by competent authorities to the MiFID database show that the average value of transactions has sharply declined since 2008.

Current Classes	AVT range		2008	2009	2010	2011	2012	2013
< 10,000 [SMS = 7,500]	AVT = 0		0.00%	0.97%	0.00%	4.53%	4.11%	0.42%
	0.0000001	2,500	0.53%	0.00%	7.02%	6.05%	34.56%	31.47%
	2,500	5,000	1.50%	9.54%	42.55%	42.95%	35.98%	43.22%
	5,000	10,000	32.51%	47.72%	36.96%	36.78%	20.25%	20.56%
10,000 <= AVT < 20,000 [SMS = 15,000]	10,000	20,000	41.71%	30.01%	12.18%	8.31%	4.25%	4.20%
20,000 <= AVT < 30,000 [SMS = 25,000]	20,000	30,000	12.62%	9.27%	0.72%	0.88%	0.57%	0.14%
30,000 <= AVT < 40,000 [SMS = 35,000]	30,000	40,000	5.88%	1.80%	0.43%	0.13%	0.14%	0.00%
40,000 <= AVT < 50,000 [SMS = 45,000]	40,000	50,000	3.10%	0.69%	0.00%	0.25%	0.14%	0.00%
50,000 <= AVT < 70,000 [SMS = 60,000]	50,000	60,000	1.18%	0.00%	0.00%	0.00%	0.00%	0.00%
	60,000	70,000	0.64%	0.00%	0.00%	0.13%	0.00%	0.00%
70,000 <= AVT < 90,000 [SMS = 80,000]	70,000	80,000	0.32%	0.00%	0.00%	0.00%	0.00%	0.00%
	80,000	90,000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
etc.	> 90,000		0.00%	0.00%	0.14%	0.00%	0.00%	0.00%
N. of liquid shares			935	723	698	794	706	715

Table 14: Liquid shares AVT classes

18. Table 14 shows the number of liquid shares falling within each of the current AVT classes, with the class of AVT <€ 10,000 further broken down, between 2008 and 2013 (Green denotes that the percentage of shares within the AVT class is between 0 and 5%, yellow between 5% and 10%, and red greater than 10%)
19. The two salient findings from this analysis are:

⁵⁵ <http://mifiddatabase.esma.europa.eu/>

- i. the number of shares falling within the smallest class (i.e. AVT < € 10,000) has risen from less than 35% (2008) to over 95% (2013); and
- ii. the average AVT for shares within the smallest class has declined from around € 7,600 in 2008 to € 3,700 in 2013. As of 2013, 75% of the shares admitted to trading on a regulated market have an AVT of less than € 5,000.

Proposal

20. ESMA is interested in receiving views on the following three possible options regarding how financial instruments are grouped into classes and/or how the standard market size for each class is established. These options are:

- i. Option A: maintain the existing classes while lowering the standard market size for the smallest class from € 7,500 to € 5,000;
- ii. Option B: group the two smallest classes into a single class for shares with an AVT between zero and € 20,000 and set a standard market size of € 10,000; or
- iii. maintain the current classes and standard market sizes for each class as under Table 3 of Annex II of the Implementing Regulation (EC) No 1287/2006 (status quo option).

21. For Option A, re-aligning the standard market size with the average value of transaction in the smallest class would adapt the systematic internaliser regime to changes in the structure of trading in shares. On the other hand, reducing the standard market size to € 5,000 would have the effect of reducing the level of transparency provided by systematic internalisers' quotes. Option B would have the opposite effect to Option A and increase the level of transparency provided by systematic internalisers' quotes while making the requirements attached with the regime more demanding.

22. Although the results of the analysis show that the AVT has declined and therefore, lead to the expectation that the standard market size should be decreased, as proposed under Option A, ESMA considers that Options B and C are valid for two reasons:

- i. firstly, one of the explicit policy goals of MiFID II is to increase transparency: to lower the standard market size is counter to that objective, in effect increasing the dark activity from its current level; and
- ii. secondly, arguably trading patterns have been atypical since 2007/2008, following the financial crisis and to set a lower standard market size follows and reinforces these patterns rather than aiming to improve transparency.

Q92: Do you support maintaining the existing table for the calculation of the standard market size? If not, which of the above options do you believe provides the best trade-off between maintaining a sufficient level of transparency and ensuring that obligations for systematic internalisers remain reasonable and proportionate? Please provide reasons for your answer.

23. For depositary receipts, as discussed in the CP with respect to the definition of equities and equity-like instruments, ESMA considers there is a direct link between shares and depositary receipts, as each depositary receipt is backed by a specific number of shares or a fraction of such. Therefore ES-



MA believes the liquidity thresholds set for shares should be the same for depositary receipts and consequently, the standard market size will be the same for depositary receipts as for shares.

Q93: Do you agree with the proposal to set the standard market size for depositary receipts at the same level as for shares? Please provide reasons for your answer.

Q94: What are your views regarding how financial instruments should be grouped into classes and/or how the standard market size for each class should be established for certificates and exchange traded funds?

3.4. Trading obligation for shares (Article 23, MiFIR)

Background/Mandate/Empowerment

1. Recital 11 of MiFIR states that in order to ensure more trading moves to regulated trading venues and systematic internalisers, a trading obligation for shares admitted to trading on a regulated market or traded on a trading venue should be introduced for investment firms.

Article 23, MiFIR - Trading Obligation for Investment Firms

1. An investment firm shall ensure the trades it undertakes in shares admitted to trading on a regulated market or traded on a trading venue shall take place on a regulated market, MTF or systematic internaliser, or a third-country trading venue assessed as equivalent in accordance with Article 25(4)(a) of Directive .../.../EU, as appropriate, unless their characteristics include that they:

- (a) are non-systematic, ad-hoc, irregular and infrequent; or*
- (b) are carried out between eligible and/or professional counterparties and do not contribute to the price discovery process.*

2. An investment firm that operates an internal matching system which executes client orders in shares, depositary receipts, ETFs, certificates and other similar financial instruments on a multilateral basis must ensure it is authorised as an MTF under Directive 2014/.../EU and comply with all relevant provisions pertaining to such authorisations.*

2. Investment firms must therefore undertake all trades (i.e. on own account and on behalf of clients) on a regulated market, MTF, systematic internaliser or third country venue recognised by MiFID unless there is a legitimate reason for them to be concluded outside of such platforms.
3. The exemption to this obligation only applies where the trades are non-systematic, ad-hoc, irregular and infrequent or are carried out between eligible and/or professional counterparties and do not contribute to the price discovery process and under those circumstances, the trade can be executed outside the above mentioned trading venues or a systematic internaliser. This exemption does not, however, preclude the fact that the transaction could be subject to post-trade transparency obligations and could be a reportable transaction under the transaction reporting regime.

Article 23(3), MiFIR

3. In order to ensure consistent application of this Article, ESMA shall develop draft regulatory technical standards to specify the particular characteristics of those transactions in shares that do not contribute to the price discovery process as referred to in paragraph 1, taking into consideration cases such as:

- (a) non-addressable liquidity trades; or*
- (b) where the exchange of such financial instruments is determined by factors other than the current market valuation of the financial instrument.*

ESMA shall submit those draft regulatory technical standards to the Commission by*

Power is delegated to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with Articles 10 to 14 of Regulation (EU) No 1095/2010.

Analysis

4. Article 23 of MiFIR waives the obligation to trade on a trading venue or a systematic internaliser for investment firms in two specific circumstances:
 - i. the trades are non-systematic, ad hoc, irregular and infrequent; or
 - ii. the trades are carried out between eligible or professional counterparties and do not contribute to the price discovery process.
5. ESMA is only mandated to provide draft RTS specifying the characteristics of transactions that do not contribute to the price discovery process, taking into consideration trades whose liquidity is non-addressable or where the exchange of shares is determined by factors other than the current valuation of the share. ESMA considers that some types of trades can have both of these characteristics.
6. ESMA's mandate does not include specifying the definition of what is non-systematic, ad hoc, irregular and infrequent, which may raise the risk of lack of legal certainty in terms of interpretation and result in different interpretations across competent authorities. In the latter instance, when an OTC activity has those characteristics, i.e. is infrequent, it might be compliant with the trading obligation provision.
7. Recital 19 of MiFIR states that 'an investment firm executing client orders against own proprietary capital should be deemed a systematic internaliser, unless the transactions are carried out outside a trading venue on an occasional, ad hoc and irregular basis.' Trading activity which is 'occasional, ad hoc and irregular' is the only wholly OTC activity permitted which is not subject to a number of requirements including pre-trade transparency. Under Article 4(1)(20) MiFID II, the definition of a systematic internaliser depends on whether an investment firm's activity is undertaken on a 'organised, frequent, systematic and substantial basis' with frequent and systematic to be measured by the number of OTC trades carried out in the financial instrument.
8. Therefore, in defining under Article 23(1) what is 'non-systematic, ad-hoc, irregular and infrequent', ESMA considers a reasonable interpretation of what is 'infrequent' to be an activity which does not meet the frequency and systematic thresholds set for systematic internalisers (see in the CP)
9. In addition to considering what is meant by 'infrequent' and 'non-systematic' the factors 'ad-hoc' and 'irregular' must also be taken into account, meaning that regulatory interpretation of what comprises such activity which can use this exemption under the trading obligation will be even narrower.
10. Turning to ESMA's mandate and considering first what is meant by 'non-addressable' liquidity, ESMA's view is that this refers to liquidity in which other market participants cannot participate as it is not displayed and the nature of the trade is such that it is restricted to the particular trading interests of predetermined counterparties and/or due to pure technical reasons. In some of the cases, this liquidity could not be considered as 'new'.
11. With respect to the second qualification, 'trades that are determined by factors other than the current valuation of the share', ESMA considers this refers to those trades that do not contribute to the price

discovery process, e.g. the price of the transaction is related to other transactions in the same or other financial instrument or its determination is affected notably by external elements.

12. Recital 11 of MiFIR indicates give-up trades are an example of the type of trades that do not contribute to the price discovery process. It also notes that such an exclusion from the trading obligation should not be used to circumvent the restrictions introduced on the use of the reference price waiver and the negotiated price waiver or to operate a broker crossing network or other crossing system.

Proposal

13. ESMA seeks the identification of trades that could be executed OTC taking into consideration the guidance provided in the mandate and the compatibility with the general obligation. In order to achieve this goal, the two following subsets include a general description of each characteristic and the types of trades matching it.
 - i. **Non-addressable liquidity trades.** Transactions under this subset are characterised by the importance of the counterparties involved and where the multilateral environment of an order book cannot ensure the matching of those specific counterparties.
 - a. An investment firm providing portfolio management services transfers the beneficial ownership of a share from one fund to another or to the fund itself, acting on behalf of both buyer and seller as asset manager, and where consequently, no other investment fund is involved. The investment firm shall be able to demonstrate that such trade is made with the sole intention of providing technical adjustments.
 - b. 'Give-up/give-in transactions' refers to all transactions where an investment firm passes a client trade to, or receives a client trade from, another investment firm for the process of post-trade processing.
 - c. Collateral management transactions, when shares are accepted as eligible collateral, refer to technical trades where shares pass from one counterparty to another as security for risk exposure or obligation in the context of a CCP risk management or in bilateral transactions,
 - d. Securities financing transactions on shares. These trades refer to shares lending and borrowing, repurchase and reverse repurchase transactions and a buy-sell back or sell-buy back trade.
 - ii. **Trades determined by factors others than the current valuation of the share.** Transactions under this subset are characterised by the factor that pricing of the trade differs from the current quoting level of the related share because its quotation derives from other different observed prices in the same or in other instruments.
 - a. Benchmark trades, where the price is calculated over multiple time instances according to a given benchmark. In other words, the price is derived over a period of time from post-trade

prices according to a specified benchmark and hence does not reflect the current price of the stock. Examples that would be covered are VWAP⁵⁶, TWAP⁵⁷ and CVWAP⁵⁸ trades.

In a benchmark trade the client gives instructions to the trader to follow a trading pattern, e.g. executing lots from the whole order on a pre-defined time frame frequency or in relevant prices where traded volume is concentrated. From an investment firm's perspective the investment firm can warrant a price according to the precise client instructions. In such a situation, the investment firm can decide whether or not to manage the assumed risk. Consequently, there can be, although not always necessarily so, two limbs. Firstly, the investment firm executes on-venue a series of orders to fulfil the client's mandate, matching or improving the warranted price, over multiple time instances. Secondly, the investment firm transfers the ownership of the previously executed orders in one single trade at the benchmark price. This second limb would be the one which could be executed OTC.

- b. Portfolio trades. A transaction in more than one financial instrument where those financial instruments are traded as a single lot against a specific reference price.

In these type of trades, for instance, the pricing of the basket of instruments is determined by the observation of a benchmark and the assigned price to one of the elements of it, i.e. a share, could not reflect its current market quotation.

- c. Delta-Neutral equity hedges of a derivative. A transaction in shares that corresponds to a hedge against the delta risk of the derivative and where these shares are exchanged by the same two counterparties to the derivative trade, at a price mutually agreed at the time of the transaction. The shares-related trade is part of a more complex trade which comprises a derivatives trade that can be subject to the trading obligation for derivatives (Article 28, MiFIR). The intention of the investor is that by the combination of a shares and a derivatives trade the risk exposure is not sensitive to price movements upwards or downwards (i.e. the investor is taking risk in volatility).

In these type of trades there must be a material correspondence between the derivative and the underlying share where general hedging activity would fall out of the definition.

- d. Equity exchange for physical trades. A transaction in which the buyer of a share, or a basket of shares, transfers to the seller a corresponding amount of long derivatives contracts or receives from the seller a corresponding amount of short futures, at a mutually agreed price. The derivatives trades can be subject to the trading obligation (Article 28, MiFIR).

⁵⁶ Volume-weighted average price

⁵⁷ Time-weighted average price

⁵⁸ Consolidated volume-weighted average price.

- Q95: Do you consider that the determination of what is non-systematic, ad-hoc, irregular and infrequent should be defined within the same parameters applicable for the systematic internaliser definition? In the case of the exemption to the trading obligation for shares, should the frequency concept be more restrictive taking into consideration the other factors, i.e. ‘ad-hoc’ and ‘irregular’?**
- Q96: Do you agree with the list of examples of trades that do not contribute to the price discovery process? In case of an exhaustive list_would you add any other type of transaction? Would you exclude any of them? Please, provide reasons for your response.**
- Q97: Do you consider it appropriate to include benchmark and/or portfolio trades in the list of those transactions determined by factors other than the current valuation of the share? If not, please provide an explanation with your response.**

3.5. Introduction to the non-equity section and scope of non-equity financial instruments

Introduction

1. The MiFIR text in Articles 8-11 imposes an entirely new transparency regime for a wide range of non-equity instruments. ESMA has to develop the majority of the implementing measures for this regime via RTS and the following sections of the Discussion Paper explain ESMA's initial thinking on how to put the non-equity transparency regime into practice.
2. Given that the non-equity provisions in MiFIR are technically complex, ESMA starts this section with an introduction of its understanding regarding how the regime should work, what it has done for the purposes of this Discussion Paper and what still needs to be done leading up to delivering the RTS and what exactly is the scope of the non-equity regime.
3. The non-equity regime mirrors the equity regime in the sense that the general principle is to have real time transparency for secondary market trading of non-equity instruments. This general principle is then subject to a range of waivers on the pre-trade side and deferred publication on the post-trade if certain requirements are met. It is important to note that the use of all of those waivers and options for deferred publication are subject to a prior authorisation by the relevant competent authority.
4. It is ESMA's understanding that the first and most important assessment to be undertaken on Level 2 is the one determining whether an instrument has a liquid market. The trading in an instrument having a liquid market is subject to real-time transparency whereas illiquid instruments are eligible to be granted a waiver for pre-trade transparency and for deferred publication post-trade. ESMA has to consider certain elements when determining whether an instrument has a liquid market and there are different methodologies (class vs. instrument-by-instrument) for assessing an instrument as liquid and these are discussed in the subsequent section of this Discussion Paper.
5. The trading in those instruments judged as liquid and therefore subject to real-time transparency can nonetheless be waived from pre-trade transparency and post-trade transparency can be deferred if the individual trade is either in excess of a size specific to the instrument or above a size considered to be large-in-scale compared to normal market size.
6. For the 'size specific' and the 'large-in-scale' provisions, ESMA is proposing to apply them in the following way:
 - i. the 'large-in-scale' thresholds for pre-trade and post-trade transparency should be higher than the 'size specific' thresholds;
 - ii. on the pre-trade size the 'size specific' applies to trading in request-for-quote and voice trading systems only, therefore determining the threshold above which trading can be conducted without pre-trade transparency on those systems while the 'large-in-scale' applies to trading under all other trading models;
 - iii. post-trade the scope of application of 'size specific' and 'large-in-scale' is universal so that the practical difference will be that the 'size specific' (i.e. the lower of the two thresholds) will render trades eligible for a shorter period of deferral than the 'large-in-scale'.

7. ESMA's proposals regarding how to design the 'size specific' and 'large-in-scale' regimes are discussed in sections 3.9 -3.10 of this Discussion Paper.
8. The non-equity transparency regime requires ESMA to develop thresholds for an extremely wide range of instruments, classes of instruments and sub-classes of instruments for bonds, structured finance products, emission allowances and derivatives.
9. For this Discussion Paper ESMA has prepared a detailed analysis of European bond markets and is publishing six threshold scenarios for determining whether a bond shall be deemed liquid⁵⁹.
10. ESMA has not been able yet to analyse liquidity and propose thresholds for the derivatives universe in particular but is conscious that such thresholds (per class or sub-class consisting of liquid market thresholds, 'size specific' pre-trade and post-trade and 'large-in-scale' pre-trade and post-trade) have to be proposed in time for the ESMA Consultation Paper on Technical Standards which will have to contain concrete legal drafting of the future Technical Standards.
11. In this Discussion Paper ESMA is therefore only describing the overall scope of the transparency regime of the transparency regime and is publishing a potential taxonomy of how to categorise and divide non-equity instruments into classes and is seeking input on whether those classes are correct and whether there is anything missing⁶⁰.

Overall scope

12. The non-equity universe includes very heterogeneous categories of financial instruments. Therefore it is necessary to identify which financial instruments are included in this universe for the purposes of the MiFIR transparency regimes. The appropriate categorisation and segmentation of non-equity financial instruments are also likely to be relevant for understanding and applying the non-equity transparency regime rules. This section of the Discussion Paper focuses on the identification of the financial instruments that fall within the scope of non-equity financial instruments for transparency purposes.
13. MiFIR organises financial instruments in the following way:

⁵⁹ See the section 3.6 – Liquid market definition for non-equity financial instruments

⁶⁰ Cf. Annex 3.6.1 Financial instruments taxonomy and metrics for the calculation of the liquidity criteria (average size of transaction).

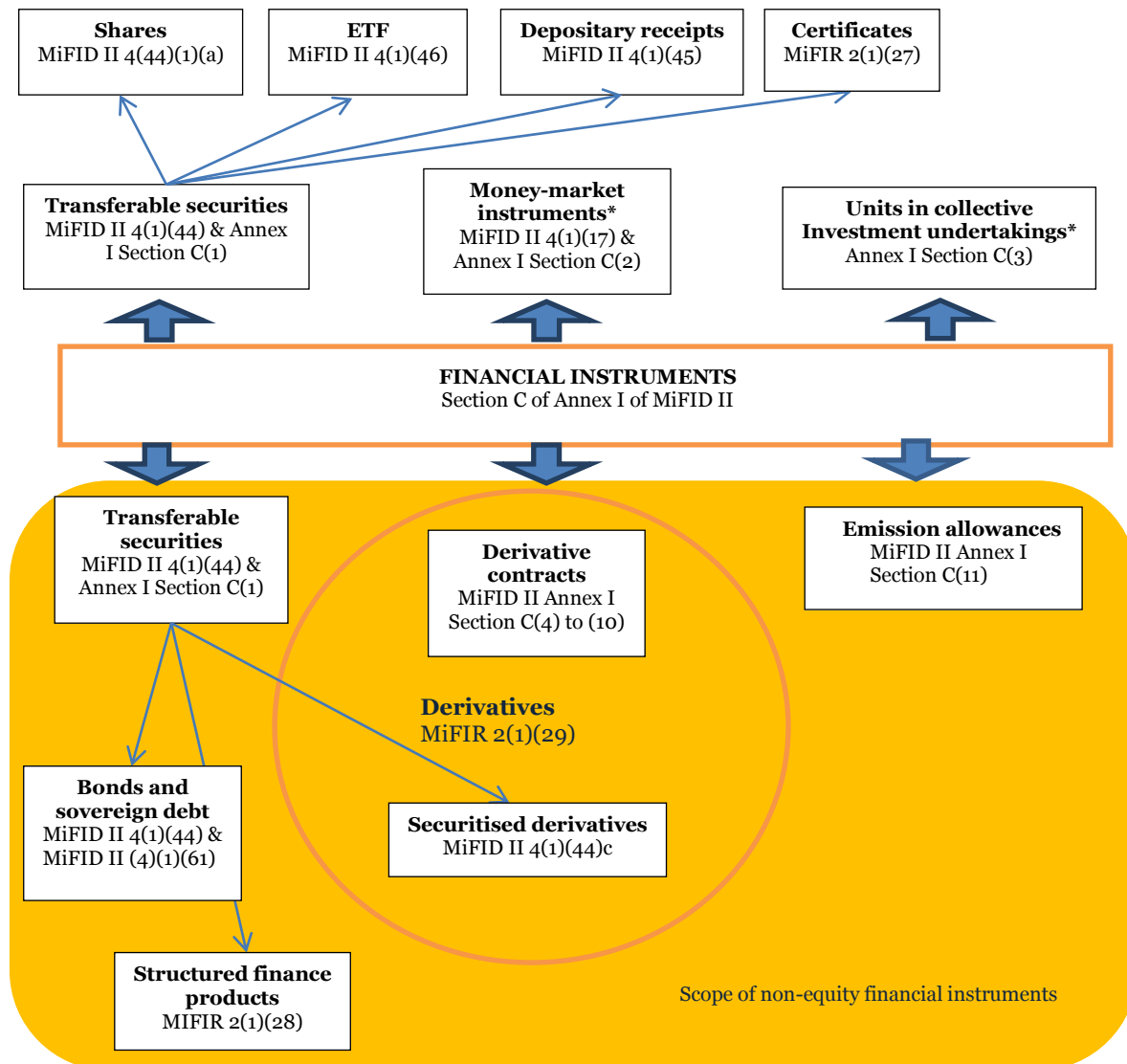


Figure 1: Scope of non-equity financial instruments

* No mandatory transparency regime applies to these instruments.

14. For the purposes of both pre-trade and post-trade transparency the non-equity universe corresponds to the following financial instruments: ‘bonds, structured finance products, emission allowances and derivatives’, and restricts the regime to those financial instruments that are traded on a trading venue.

Bonds

15. According to MiFID II Article 4(1)(44)(b), ‘bonds’ refers to a kind of transferable securities that are negotiated on capital markets including depository receipts representative of bonds. Depository receipts are defined in MiFID II Article 4(1)(45) as “*securities which are negotiable on the capital market and which represent ownership of the securities of a non-domiciled issuer while being able to be*

admitted to trading on a regulated market and traded independently of the securities of the non-domiciled issuer". Although pre-trade and post-trade transparency for equity instruments includes in its scope depository receipts (MiFIR Articles 3 and 6), this should not be read as including depository receipts with respect to bonds. These depository receipts should be treated as non-equity financial instruments for the purposes of pre-trade and post-trade transparency.

16. Convertible bonds are hybrid financial instruments made up of a bond or securitised debt with an imbedded derivatives. They usually consist of a standard corporate bond with an option to buy the underlying equity of the issuing company. Therefore they can be categorised according to the definition given in both MiFID II Article 4(1)(44)(b) and Article 4(1)(44)(c). For the purposes of pre-trade and post-trade transparency ESMA considers that they should be treated as bonds.
17. According to MiFID II Article 4(1)(61) 'sovereign debt' means a debt instrument issued by a sovereign issuer.

Article 4(1)(60) MiFID II defines 'sovereign issuer' as any of the following that issues debt instruments:

- i. the Union;
 - ii. a Member State, including a government department, an agency, or a special purpose vehicle of the Member State;
 - iii. in the case of a federal Member State, a member of the federation;
 - iv. a special purpose vehicle for several Member States;
 - v. an international financial institution established by two or more Member States which has the purpose of mobilising funding and provide financial assistance to the benefit of its members that are experiencing or threatened by severe financing problems; or
 - vi. the European Investment Bank;
18. The definitions provided do not address how the transparency regime for non-equity financial instruments, in particular sovereign debt, applies to transferable securities that are issued in a jurisdiction other than a Member State or by a non-domiciled issuer and do not trade independently of the securities of the non-domiciled issuer. Therefore, given the restricted definitions of sovereign issuer under Article 4(1)(60), ESMA considers that securities issued in a non EU country should not qualify as 'sovereign debt' under the transparency regime. Thus these securities when traded on a trading venue in a Member State would be subject to the transparency regime that applies to a 'generic' bond category. Another type of bond that may be caught by such a generic regime would be municipal bonds.
 19. For the purposes of pre-trade and post-trade transparency ESMA considers that covered bonds, as defined under Article 52(4) of the UCITS Directive (Directive 2009/65/EC), should be treated as bonds.

Structured Finance Products

20. Structured Finance Products are defined in MiFIR Article 2(1)(28) as “those securities created to securitise and transfer credit risk associated with a pool of financial assets entitling the security holder to receive regular payments that depend on the cash flow from the underlying assets”.
21. Recital 15 of MiFIR offers clarification, “Structured finance products should in particular, include asset backed securities as defined in Article 2(5) of Commission Regulation (EC) No 809/2004, comprising among others collateralised debt obligations.”
22. Article 2(5) of the above mentioned Regulation (EC) No 809/2004 regarding information contained in prospectuses reads as follows: “*Asset backed securities*” means securities which: (a) represent an interest in assets, including any rights intended to assure servicing, or the receipt or timeliness of receipts by holders of assets of amounts payable there under; (b) or are secured by assets and the terms of which provide for payments which relate to payments or reasonable projections of payments calculated by reference to identified or identifiable asset”.
23. Whereas there is no single, uniform definition of a structured finance product and the term is often used to refer broadly to packaged investment products, the definition provided in MiFIR Article 2(1)(28) limits this category of financial instruments to securitised debt. CESR gave examples of structured finance products in its technical advice on non-equity post-trade transparency (Ref: CESR/10-799) and cited asset backed securities (ABS) including residential mortgage backed securities (RMBS) and commercial mortgage backed securities (CMBS), collateralised debt obligations (CDOs) and asset-backed commercial paper (ABCP) in this category of financial instruments. In contrast, neither covered bonds, which do not link the cash flow from the underlying assets to the regular payments received by the security holder, nor derivative instruments for the transfer of credit risk that do not take the shape of a transferable security should be included in this category of financial instruments.
24. Because structured finance products are by definition securities and must be transferable in order to be traded, they fall within the universe of transferable securities. Within this universe they are not easily distinguished from bonds to the extent that they are a form of securitized debt. To isolate structured finance products, it is necessary to refer to information provided by the issuer.

Q98: Do you agree with the proposed description of structured finance products? If not, please provide arguments and suggestions for an alternative.

Q99: For the purposes of transparency, should structured finance products be identified in order to distinguish them from other non-equity transferable securities? If so, how should this be done?

Derivatives

25. Article 2(1)(29) of MiFIR states that: “derivatives” means those financial instruments defined in point (44)(c) of Article 4(1) and referred to in Annex I Section 4 to 10 of the Directive [MiFID II]”. According to this definition, this category of financial instruments includes both securitized derivatives and derivative contracts.
26. MiFID II Article 4(1)(44)(c) refers to “any other securities giving the right to acquire or sell any such transferable securities or giving rise to a cash settlement determined by reference to transferable securities, currencies, interest rates or yields, commodities or other indices or measures”.

27. Article 4(1)(44)(c) of MiFID II relates to financial instruments that could be called securitised derivatives. For the purpose of pre-trade and post-trade transparency, transferable securities that are traded on a trading venue and either have an imbedded derivative or have been structured so that their value is determined by reference to something else are subject to the rules that apply to derivatives. These securitised derivatives, which are not contracts and not subject to regular margin calls, usually follow the same sort of settlement rules as other transferable securities that trade on cash markets.
28. Examples of relevant securitised derivatives are covered warrants, negotiable rights, warrants attached to bonds, securitised commodities, medium term notes that track the performance of another asset and certificates that track the performance of an underlying asset as opposed to the certificates that are defined in MiFIR 2(1)(27).
29. On the other hand, even if most structured finance products are consistent with the definition of securitised derivatives as defined in Article 4(1)(44)(c) of MiFID II since they usually give rise to a cash settlement based on the performance of the reference loan portfolio, ESMA considers that structured finance products should not be included in the derivative category because they are cited separately in MiFIR.

Q100: Do you agree with the proposed explanation for the various types of transferable securities that should be treated as derivatives for pre-trade and post trade transparency? If not, please provide arguments and suggestions for an alternative.

30. Derivatives as defined by Article 2(1)(29) of MiFIR cover both the securitized derivatives discussed above and the derivative contracts enumerated in MiFID II, Annex I, Section C paragraph 4 to 10. These derivative contracts are subject to pre-trade and post trade transparency if they are traded on a trading venue, whether or not they are subject to the trading obligation for derivatives.
31. The list set forth in MiFID II, Annex I, Section C 4 to 10 distinguishes derivative contracts according to the underlying asset or reference price:
 - i. securities, currencies, interest rates or yields, emission allowances, financial indices, financial measure or other derivative instruments in section 4;
 - ii. commodities in sections 5 to 7;
 - iii. transfer of credit risk in section 8; and
 - iv. climatic variables, freight rates, inflation rates and other official economic statistics in section 10.
32. Section C 10 of Annex I also includes “any other derivative contracts relating to assets, rights, obligations, indices and measures not otherwise mentioned in this Section, which have the characteristics of other derivative financial instruments, having regard to whether, inter alia, they are traded on a regulated market, OTF, or an MTF”.
33. ESMA is mandated to provide technical advice to the European Commission on further specifying C6, C7 and C10. See section 7.1. of the CP for ESMA’s proposals.
34. MiFID II, Annex I, Section C differentiates derivative contracts that take the form of options, futures, swaps, forward rate agreements and other derivative contracts cited in Section C 4 to 7 and 10 from the transfer of credit risk (Section C 8) and contracts for difference (Section C 9). Another distin-

guishing factor singled out in Section C is the settlement mechanism (physically or cash settled) applicable to commodity derivatives (Section C 4 to 7 and 10).

35. In brief, ESMA has identified the following derivative segmentation:

- i. Securitised derivatives:
 - a. covered warrants;
 - b. certificated derivatives (e.g. Kertificatz, certificats, etc.) ;
 - c. negotiable rights; and
 - d. warrants attached to bonds and medium term notes that track the performance of another asset.
- ii. Derivative contracts:
 - a. interest rate derivatives;
 - b. foreign exchange derivatives;
 - c. equity derivatives;
 - d. commodity derivatives (including energy derivatives, e.g emission allowances derivatives);
 - e. credit derivatives (including single name and index credit default swaps); and
 - f. other derivatives (relating to environmental derivatives and other underlying classes of financial instruments).
- iii. Contracts for difference.

36. A discussion on the more granular segmentation of these derivatives classes for the purposes of defining liquidity classes is in Annex 3.6.1 – Financial instruments taxonomy and metrics for the calculation of the liquidity criteria (average size of transaction).

37. It should be noted that the trading obligation under Article 28 of MiFIR for securitised derivatives and derivative contracts will require a classification of derivatives which may be different but nevertheless compatible with the segmentation for the transparency purposes.

Emission Allowances

38. The revised MiFID Directive notes that a range of fraudulent practices have occurred in spot secondary markets in emission allowances (EUA) which could undermine trust in the emissions trading schemes, set up by Directive 2003/87/EC. In order to reinforce the integrity and safeguard the efficient functioning of those markets, including comprehensive supervision of trading activity, it is appropriate to complement measures taken under Directive 2003/87/EC by bringing emission allowances fully into the scope of the MiFID II Directive by classifying them as financial instruments.

39. Annex I, section C 11 of the MiFID II Directive says as follows: “Emission allowances consisting of any units recognised for compliance with the requirements of Directive 2003/87/EC (Emissions Trading Scheme)”.

40. The Directive 2003/87/EC (Emissions trading Scheme) provides the following definitions:

- i. “‘allowance’ means an allowance to emit one tonne of carbon dioxide equivalent during a specified period, which shall be valid only for the purposes of meeting the requirements of this Directive and shall be transferable in accordance with the provisions of this Directive”;
 - ii. ‘emissions’ means the release of greenhouse gases into the atmosphere from sources in an installation”.
41. The definition of emission allowances includes products presenting analogous characteristics, which are traded on secondary markets, i.e. the Certified Emission Reductions (CER) and the Emission Reduction Units (ERU) which have been issued pursuant to the relevant process and are held on a registry account in the EU.

Identification of the category of an instrument for the purposes of determining trade transparency thresholds

42. ESMA at this stage intends to implement a classes of financial instruments (COFIA) approach for some or all classes of financial instruments under the MiFIR non-equity transparency regime. To precisely define and then analyse the trading of such classes in order to fix adequate liquidity thresholds as well as pre-trade and post-trade transparency thresholds, ESMA has to be able to identify financial instruments as belonging to a certain class, for example, by grouping bonds into sovereign, corporate, covered bonds etc.
43. Today identifying bonds and securitised debt requires in practise to rely on the internationally recognized CFI code, whose format is defined by the ISO 10962 standard maintained by the International Organisation for Standardisation (ISO). In other words, the financial instruments with a “DB” identifier and traded on a trading venue are deemed to be bonds.
44. However the current CFI indicators are not adequate for identifying some classes of bonds, securitised derivatives or structured finance products. It is assumed that the CFI indicators ‘DC’ for convertible bonds, ‘DM’ for miscellaneous debt, ‘DT’ for medium term notes and ‘DW’ for warrants attached to bonds may serve to identify some of the bonds designated in Article 4(1)(44)(b), securitised derivatives designated in Article 4(1)(44)(c) of MiFID II and structured finance products designated in MiFIR Article 2(1)(28), but these indicators do not in all cases correspond accurately and fully to the categories used for non-equity financial instruments in MiFIR.
45. Therefore it is proposed that the market operator or investment firm operating a trading venue which plans to offer trading in a given bond or structured finance product should assume the responsibility for determining whether or not the financial instrument should be regarded as a specific type of bond or structured finance product which then can be used for analysis for MiFIR transparency purposes. Subsequently the trading venue will be responsible for ensuring appropriate compliance with the new pre-trade and post-trade transparency requirements.
46. Likewise it is proposed that the market operator or investment firm operating a trading venue which plans to offer trading in securitised derivatives should assume the responsibility for determining whether or not such an instrument incorporates a right or a reference to one or more other financial instruments, currencies, interest rates or yields, commodities or other indices or measures and whether it should be regarded as a derivative. Subsequently the trading venue will be responsible for ensuring appropriate compliance with the new pre-trade and post-trade transparency requirements.

47. More generally ESMA considers that the categorisation and segmentation of financial instruments by type for transparency purposes should be assigned to market operators and investment firms operating a trading venue. They should be responsible for determining the category to which non-equity financial instruments belong based on ESMA criteria, by referring to the information provided by the issuer and likely to figure in the prospectus. They should provide this information to the market and to their competent authority before trading on the trading venue in the given financial instrument can start. This is in line with Article 27(1) of MiFIR, which states that trading venues shall provide competent authorities with identifying reference data for the purposes of transaction reporting under Article 26 MiFIR. With regard to other financial instruments covered by Article 26(2) MiFIR traded on its system, each systematic internaliser shall provide its NCA with reference data relating to those financial instruments.
48. ESMA is developing a RTS to determine the data standards and formats of the instruments reference data to be provided⁶¹. The RTS should reflect a consistent approach to classifying financial instruments across trading venues. This would avoid discrepancies whenever a bond is traded on several trading venues.
49. Below ESMA is reproducing (from MiFID II and other EU legal texts) and proposing a number of definitions that should be the basis of the designation of instruments to be implemented by market operators and investment firms operating a trading venue and to be communicated to the market and NCAs. ESMA will provide a complete list of definitions, aligned with the ultimate proposal on COFIA at the Consultation Paper stage. In the meantime it is seeking views on the definitions provided.

Non-equity instruments

Structured Finance Products (SFPs) - Article 2(1)(28) MiFIR

50. Means those securities created to securitise and transfer credit risk associated with a pool of financial assets entitling the security holder to receive regular payments that depend on the cash flow from the underlying assets.

Article 5 Commission Delegated Regulation (EU) No 448/2012 - Specific structured finance products

Structured finance ratings

4. When reporting structured finance ratings, a credit rating agency shall classify the ratings within one of the following asset classes:

(a) *Asset-backed securities. This asset class includes the sub-asset classes auto/boat/airplane loans, student loans, consumer loans, health care loans, manufactured housing loans, film loans, utility loans, equipment leases, credit card receivables, tax liens, non-performing loans, credit-linked notes, recreational vehicle loans, and trade receivables;*

(b) *Residential mortgage-backed securities. This asset class includes the sub-asset classes prime residential mortgage-backed securities and non-prime residential mortgage-backed securities and home equity loans;*

⁶¹ Cf. section 8.2 of this DP.

(c) *Commercial mortgage-backed securities. This asset class includes the sub-asset classes retail or office property loans, hospital loans, care residences, storage facilities, hotel loans, nursing facilities, industrial loans, and multifamily properties;*

(d) *Collateralised debt obligations. This asset class includes the sub-asset classes collateralised loan obligations, collateralised bond obligations, collateralised synthetic obligations, single-tranche collateralised debt obligations, collateralised fund obligations, collateralised debt obligations of asset-backed securities, and collateralised debt obligations of collateralised debt obligations;*

(e) *Asset-backed commercial papers;*

(f) *Other structured finance instruments that are not included in the preceding asset classes, including structured covered bonds, structured investment vehicles, insurance-linked securities and derivative product companies.*

[This categorisation may be amended once a new technical standard, also defining structured finance products, in the course of the implementation of CRA III comes into force.]

Bonds:

Sovereign debt – Article 4(1)(61) MiFID

Sovereign debt means a debt instrument issued by a sovereign issuer

Sovereign issuer – Article 4(1)(60) MiFID

Sovereign issuer means any of the following that issues debt instruments:

- the Union;
- a Member State, including a government department, an agency, or a special purpose vehicle of the Member State;
- in the case of a federal Member State, a member of the federation;
- a special purpose vehicle for several Member States;
- an international financial institution established by two or more Member States which has the purpose of mobilizing funding and provide financial assistance to the benefit of its members that are experiencing or threatened by severe financing problems; or
- the European Investment Bank.

Covered bonds – UCITS Directive (Directive 2009/65/EC), Article 52(4) ([here](#))

[...] bonds [that] are issued by a credit institution which has its registered office in a Member State and is subject by law to special public supervision designed to protect bond-holders. In particular, sums deriving from the issue of those bonds shall be invested in accordance with the law in assets which, during the whole period of validity of the bonds, are capable of covering claims attaching to the bonds and which, in the event of failure of the issuer, would be used on a priority basis for the reimbursement of the principal and payment of the accrued interest. [...]

Corporate bonds

Corporate bonds would be defined by a combination of defining what an eligible debt security is and linking that to the First Company Law Directive where corporations in the EU are defined.

Corporate bonds are debt securities defined as a security that satisfies the following conditions:

- the security is constituted by an order, promise, engagement or acknowledgement to pay on demand, or at a determinable future time, a sum in money to, or to the order of, the holder of one or more units of the security; and
- the current terms of issue of the security provide that its units may only be held in uncertificated form and title to them may only be transferred by means of a relevant system.

Which are issued by a type of company listed in Article 1 of Directive 2009/101/EC.

Convertible bonds

Convertible bonds are hybrid instruments consisting of a bond or securitised debt with an embedded derivative, normally an option to acquire the underlying equity of the issuing company.

Q101: Do you agree with ESMA's proposal that for transparency purposes market operators and investment firms operating a trading venue should assume responsibility for determining to which MiFIR category the non-equity financial instruments which they intend to introduce on their trading venue belong and for providing their competent authorities and the market with this information before trading begins?

Q102: Do you agree with the definitions listed and proposed by ESMA? If not, please provide alternatives.

3.6. Liquid market definition for non-equity financial instruments

Background/Mandate/Empowerment

1. According to MiFIR a liquid market for a financial instrument or a class of financial instruments is a market where there are ready and willing buyers and sellers on a continuous basis. The definition provides a number of specific criteria aimed at determining whether a financial instrument or a class of financial instruments is indeed liquid. Those criteria include trade-based, order-based and market-structure based measures of liquidity.

Article 2(1)(17), MiFIR

'Liquid market' means:

- a. *for the purposes of Articles 9, 11 and 18, a market for a financial instrument or a class of financial instruments, where there are ready and willing buyers and sellers on a continuous basis, and where the market is assessed in accordance with the following criteria, taking into consideration the specific market structures of the particular financial instrument or of the particular class of financial instruments:*
 - i. *the average frequency and size of transactions over a range of market conditions, having regard to the nature and life cycle of products within the class of financial instrument;*
 - ii. *the number and type of market participants, including the ratio of market participants to traded instruments in a particular product;*
 - iii. *the average size of spreads, when available.*

2. The concept of a 'liquid market' as defined above plays a central role in the transparency regime for non-equity financial instruments. MiFIR requires a number of key implementing measures to be adopted (including technical standards drafted by ESMA) which hinge on the concept of 'liquid market'. While the concept of liquidity is already present in Directive 2004/39/EC, it currently plays a more limited role as it is only relevant for quoting obligations for systematic internalisers in shares with no effect on the transparency regime for trading venues.
3. ESMA is aware that the general concept of liquidity of financial instruments also plays a role in other pieces of European legislation, notably in the Capital Requirements and UCITS frameworks. ESMA would like to emphasise that the concept of a liquid market as described in MiFIR and further specified by ESMA technical standard is relevant for transparency purposes in MiFIR only. Liquidity tests and assessments in other pieces of European legislation serve different regulatory purposes and are therefore independent of the liquidity assessments for MiFIR.
4. MiFIR introduces transparency requirements for bonds, structured finance products, emission allowances and derivatives depending on whether or not there is a liquid market in those instruments.
5. With regard to pre-trade transparency, Article 9(1)(c) of MiFIR allows NCAs to waive the obligation for market operators and investment firms operating a trading venue to make public pre-trade infor-

mation for non-equity instruments for which there is not a liquid market. In addition, the requirements covering the publication of systematic internalisers' quotes also refer to the definition of a liquid market in a given financial instrument (Article 18(2) of MiFIR). On the post-trade side deferred publication is available to (classes of) financial instruments for which there is no liquid market (Article 11(1)(b) of MiFIR).

6. In addition, Articles 9(4) and 11(2) of MiFIR allow for a temporary suspension from pre-trade and post-trade transparency in case the liquidity of a class of financial instruments falls below a specified threshold.
7. The importance of the concept of a liquid market goes beyond the transparency regime. According to Article 20(3) of MiFID II, the operator of an organised trading facility (OTF) may deal on own account other than on a matched principal basis only with regard to sovereign debt instruments for which there is not a liquid market.
8. Last but not least, the trading obligation for derivatives applies only to those classes of derivatives which are considered sufficiently liquid (Article 32(2) of MiFIR). However, although the definition in Article 32(2) of MiFIR is quite close to that in Article 2(1)(17)(a) of MiFIR, they are not identical⁶².
9. ESMA understands that the guiding principle for the calibration of transparency requirements is to support the efficient functioning of markets by avoiding a situation in which financial instruments for which there is not a liquid market are subjected to exacting transparency requirements which would further deteriorate their liquidity.
10. In this DP, ESMA is proposing to discuss:
 - i. the different components of a 'liquid market' as defined in Article 2(1)(17) of MiFIR;
 - ii. the decision mechanisms for assessing the liquidity criterion and combining the liquidity characteristics described under Article (2)(1)(17);
 - iii. two approaches for applying the liquidity components to the different classes of non-equity instruments; and
 - iv. the potential temporary suspension from transparency requirements.

The components of the definition of a 'liquid market'

Average frequency of transactions

Analysis

⁶² It should be noted that Article 32 of MiFIR which defines 'sufficiently liquid' with regard to the trading obligation for derivatives uses almost the same definition. However, it deviates in some aspects:

- Article 32(3)(a) of MiFIR refers to trades instead of transactions (however, it is assumed that both terms are used as synonyms);
- Article 32(3)(b) of MiFIR refers to the number and type of active market participants including the ratio of market participants to products/contracts traded in a given product market;
- When referring to the usage of spreads Article 32(3)(c) MiFIR does not use the term 'when available'.

11. Article 2(17)(a)(i) of MiFIR refers to ‘the average frequency of transactions over a range of market conditions, having regard to the nature and life-cycle of products within the class of financial instrument’. However, the term ‘average frequency’ can be interpreted in different ways.
12. In order to provide a simple and predictable approach, ESMA favours setting absolute numbers, rather than using a relative concept (i.e. one based on percentages), as follows:
 - i. Option 1: The term ‘average frequency’ (e.g. the average number of transactions per month) could be understood as the minimum number of transactions within a specific time period (e.g. at least x number of transactions per month).
 - ii. Option 2: The term ‘average frequency’ could be understood as the minimum number of trading days on which at least one transaction occurred within a specific time period (i.e. ‘active’ trading days). Similarly, under the current MiFID, a necessary condition for a share to be defined as liquid is that it must be traded daily.
 - iii. Option 3: A combination of options 1 and 2. The threshold would be set as a combination of the minimum of transactions plus a minimum number of active trading days. A financial instrument would be considered liquid only if both requirements were met. The advantage of this approach is that it would take into account uneven distributions to a certain degree. However, the chosen thresholds would need to be set at a level that is lower than in options 1 and 2.
13. For the above options, choosing an appropriate time period will be crucial and therefore, defining the time period is important. The longer the time period, the higher the risk of skewed distributions.
14. ESMA may consider, if necessary, different time periods for different classes of financial instruments.

Proposal

15. ESMA’s preference is for option 3, i.e. to require both a minimum number of transactions as well as a minimum number of trading days on which at least one transaction occurred. ESMA considers this option will most accurately take into account the nature and lifecycle of the relevant financial instrument or the class of financial instruments. Annex 3.6.2 contains a scenario analysis applying these measures to a sample of bonds.

Q103: Do you agree with the proposed approach? If you do not agree please provide reasons for your answers. Could you provide for an alternative approach?

Average size of transactions

Analysis

16. Article 2(17)(a) of MiFIR refers to the ‘average size of transactions over a range of market conditions, having regard to the nature and life cycle of products within the class of financial instrument’.

- i. *Option 1:* The ‘average size’ could be calculated based on the total turnover over a period divided by the number of transactions in that period (i.e. the average value of transactions or AVT).⁶³ The AVT is determined by two components: the total turnover and the number of transactions. Therefore, the data input would be the volume and price of each transaction (or their total turnover) plus the number of transactions. The higher the AVT the more liquid the financial instrument. However, this concept ignores uneven distributions of transactions over time (which is not unusual in fixed income instruments). In an extreme case all transactions could occur on a single trading day but the criterion would still be met. Again, choosing the time period would be important. The longer the time period the higher the risk that skewed distributions go by undiscovered.
 - ii. *Option 2:* The ‘average size’ could be calculated based on the total turnover over a period divided by the number of trading days in that time period (i.e. a constant figure close to 250 for the period of one year). The higher the figure the higher the liquidity of the financial instrument. The figure is determined by only one component: the total turnover (the number of trading days being a constant figure).
17. Whilst ESMA considers that calculating the average number of transactions, the number of market participants and for average spreads is generally straightforward, it is less so for the average size of transactions as different instruments may need different metrics. In order to keep criteria as simple as possible, ESMA proposes to use ‘turnover’ for securities and ‘notional amount’ for derivatives. In particular, using ‘notional amounts’ for derivatives would be in line with the respective U.S. regulations. A proposal for the metrics is attached as Annex 3.6.1.

Proposal

18. ESMA’s preference is for option 2 (i.e. the total turnover over of a period divided by the number of trading days). Annex 3.6.2 contains a scenario analysis applying option 2.

Q104: Do you agree with the proposed approach? If you do not agree please provide reasons. Could you provide an alternative approach?

Data related to market participants

Analysis

19. The requirement, under Article 2(17)(a)(ii) of MiFIR, to take ‘the number and type of market participants, including the ratio of market participants to traded financial instruments in a particular product’ into account is not self-explanatory. For example, a high number of market participants might be associated with a high degree of liquidity - as is set out in recital 21 of MiFIR. On the other hand, a low number of market participants might indicate that this market is a predominantly professional market characterised by the existence of ‘liquidity providers’. However, these assumptions do not lead

⁶³ A similar concept has been used in MiFID I in order to define the standard market size for liquid shares (in the context of requirements for systematic internalisers). The AVT signifies the ‘average value of orders executed’ (excluding those that are large in scale compared to normal market size). See Article 23 and Table 3 in Annex II of Regulation 1287/2006.

to clear-cut conclusions as the existence of 'liquidity providers' is more indicative of the micro-structure of a market than its liquidity.

20. Consequently, defining and distinguishing different types of market participants is complex. There is no obvious definition of a retail investor nor could such a definition be applied across all classes of financial instruments. Similar arguments apply with regard to non-financial end-users and liquidity providers. Finally, unlike, for example, in the U.S. derivatives markets, there are no flags for identifying different types of market participants. Given all these challenges, ESMA seeks a proxy which (i) captures the political intention of MiFIR and (ii) could be operated in practice without creating a new and complex framework.
21. Therefore, ESMA proposes to define a minimum number of (different) market participants trading in a given market. The rationale for doing so is to use these minimum numbers as an auxiliary criterion when assessing liquidity. As a result, a market would not be considered liquid if only a very low number of market participants trade. This mirrors the generally accepted notion that liquidity is - all other things being equal - positively correlated with the number of the participants.
22. ESMA is considering three options for capturing the number of market participants:
 - i. Option 1: The term market participant should be understood as any member or participant of a trading venue being involved in at least one transaction in a given market. The necessary data could be computed by assessing the transaction reporting data (in the future this data should contain the Legal Entity Identifier (LEI) for each investment firm reporting a transaction).
 - ii. Option 2: The term market participant should be understood as any member or participant of a trading venue with a contractual arrangement to provide liquidity in a financial instrument traded at least on one trading venue (e.g. as members of a regulated market). This kind of information could be obtained directly from the trading venues at a certain point in time (e.g. year-end). However, if there were markets without such contractual arrangements it would be impossible to meet this criterion. As a consequence, all related financial instruments would be considered as illiquid.
 - iii. Option 3: The term market participant refers to any member or participant of a trading venue and the clients on behalf of which members/participants execute transactions on a trading venue in the relevant financial instrument or class of financial instruments.

Proposal

23. ESMA has a preference for Option 1. This option can easily be operated and provides for a straightforward and predictable regulatory framework. In addition ESMA proposes to apply the same thresholds regarding the number of market participants for all classes of financial instruments.

Q105: Do you agree with the proposed approach? If you do not agree please provide reasons. Could you provide an alternative approach?

Average size of spreads

Analysis

24. The requirements relating to transparency requirements for non-equities and the trading obligation for derivatives are identical – except the words ‘when available’ which are missing in the trading obligation context. Recital 21 of MiFIR indicates that the term ‘spread’ refers to the quoted bid-ask spread, i.e. the spread between the highest quote for purchasing a financial instrument (bid) and the lowest quote for selling this financial instrument (ask) with the ask being higher than the bid. So, the tighter the bid-ask spread the more liquid the respective financial instrument is perceived. If the concept is applied to a class of financial instruments, the bid-ask spread would relate to a proxy for a given class of financial instruments.
25. Spreads should be computed as a percentage of the mid-spread.⁶⁴ The advantage of this concept is that the absolute price level of an instrument can be taken into account. This is important since this measure will be applied to different classes of financial instruments. Bid and ask quotes are published by a number of market participants and trading venues. However, they may differ by type (indicative vs. firm) and by depth (e.g. for a volume of €1m vs. €50m). In addition, in non-anonymous markets spreads may differ depending on the creditworthiness of the counterparty.
26. Although MiFIR uses the term ‘average’ spread it may not be possible to aggregate spreads from different sources. In addition, arbitrage between different trading venues is supposed to eliminate spread anomalies.

Proposal

27. ESMA proposes to use the end-of-day relative bid-ask spreads as published by the most relevant market in terms of liquidity irrespective of the size and type of the quotes.⁶⁵ However, this option could only be applied if the following requirements are met:
 - i. Trading takes place on the (lit) order book of the trading venue. Otherwise, spread data would be considered as non-available;
 - ii. Both sides of the spread are available;
 - iii. The spread has a volume attached; and
 - iv. The spread data is easily accessible via a central source (i.e. electronically and in a standardised format). In practise, the data source should either be the individual trading venues or data vendors.
28. ESMA is of the opinion that the definition of the spread thresholds should take into account the specifics of the individual classes of financial instruments. ESMA does not propose any specific figures currently but seeks views from market participants.
29. ESMA also considers that the spread data should be calculated for the whole period or for a sufficiently long number of trading days. The arithmetic average of this data would be considered as the ‘average spread’. If no, or only incomplete, figures were available then the spread criterion would not be applied for assessing liquidity.

⁶⁴ Relative quoted bid-ask-spread = $(ask-bid)/[(ask+bid)/2]*100$.

⁶⁵ Article 26(9)(b) of MiFIR empowers ESMA to draft RTS for defining the criteria for the ‘most relevant market in terms of liquidity’.

Q106: Do you agree with the proposed approach? If you do not agree please provide reasons. Could you provide an alternative approach?

Q107: Should different thresholds be applied for different (classes of) financial instruments? Please provide proposals and reasons.

Q108: Do you have any proposals for appropriate spread thresholds? Please provide figures and reasons.

Q109: How could the data necessary for computing the average spreads be obtained?

Decision mechanisms for assessing the liquidity criteria

Analysis

30. MiFIR requires the determination of whether an instrument is liquid or not by assessing certain criteria (as discussed in the above chapters) and to take the specific market structures into consideration. However, as MiFIR does not prescribe how to combine those different criteria and to assess in practice whether a financial instrument or a class of financial instruments is liquid or not. There are ways in which these criteria can be combined:

- i. Option 1: the four criteria are considered to be equally important and all the criteria must be met. If the thresholds for the average frequency, the average transaction size, the number of participants and the spread were all met then the market would be considered to be liquid. If even one of these criteria is not met, the financial instrument or the whole class of financial instruments would not be considered liquid. However, if a criterion is not met because of the unavailability of data (e.g. for spreads) this would not result in the conclusion that the market is illiquid but in an adaption of the set of criteria.
- ii. Option 2: a variation of option 1 where not all criteria have to be met in order for the (class of) financial instrument to be considered liquid. Either it would be sufficient that a certain number of the four criteria is met and/or it could also be specified that certain criteria must be met as a minimum. The application of this option would enable differentiation between the criteria because some may be considered more important than others. In addition, it would facilitate the decision-making process in cases where data was not available (as could be the case with regard to the spread data).⁶⁶

Proposal

31. Currently, ESMA has a weak preference for applying Option 1. However, it may be appropriate to use different decision-making procedures for different classes of financial instruments.

⁶⁶ Example for a combination of both aspects: One might require that the two criteria on the 'average frequency' and the one on the 'average size' have to be met (they are 'musts') while it would be sufficient if either the 'average spread' criterion or the one related to the number of participants would be met in order to consider a (class of) financial instrument(s) as liquid.

Q110: Do you agree with the proposed approach? If you do not agree please provide reasons for your answer. Could you provide an alternative approach?

Q111: Overall, could you think of an alternative approach on how to assess whether a market is liquid bearing in mind the various elements of the liquid market definition in MiFIR?

Applying the liquidity criteria to (classes of) financial instruments

Analysis

32. Broadly speaking, it is possible to distinguish two approaches for the assessment of the liquid market:
33. one called **Classes Of Financial Instruments Approach (COFIA)**. The COFIA requires assessing the liquidity of the class as a whole on the basis of the liquidity of all the instruments within this class. By class ESMA means the division of asset groups (e.g. bonds, derivatives) into more granular classes to the extent necessary to construct a class of instruments with homogenous liquidity. For that purpose classes should be determined on the basis of some key characteristics which, according to the available empirical evidence, are considered as good explanatory features of liquidity. In other words, a necessary prerequisite for applying this approach is the proper grouping/segmentation of financial instruments into homogenous and relevant classes.
34. a second called **the Instrument By Instrument Approach (IBIA)** where criteria are applied to each individual financial instrument (e.g. at the ISIN level).

The general procedure for applying IBIA and COFIA

35. For both approaches there are six steps required to define the liquidity thresholds. In summary, these are:
 - i. definition of the classes for calculating the liquidity thresholds;
 - ii. determination of the liquidity thresholds for each liquidity criteria;
 - iii. segmentation into liquidity sub-categories (COFIA only);
 - iv. initial assessment of the liquidity of the instruments/class;
 - v. periodic assessment of the liquidity of the instrument/class; and
 - vi. periodic review of the liquidity thresholds.
36. These steps are set out in further detail below - see also Annex 3.6.3 which provides a graphical description of the main features of both concepts with regard to bonds.

Definition of the classes for calculating the liquidity thresholds

37. At this stage a determination should be made regarding whether different liquidity thresholds will be set for the same asset class of instruments. For example, for bonds a liquidity threshold could be calculated for all bonds or for different classes of bonds e.g. segmenting into sovereign bonds and non-

sovereign bonds, which would result in two liquidity thresholds. This step is necessary regardless of whether the intention is to adopt the IBIA or COFIA approach.

Determination of the liquidity thresholds for each liquidity criteria

38. The liquidity thresholds, based on the four liquidity criteria we describe above (average frequency of size, average size of transactions, number of market participants and average size of spread where available), must be calculated for both approaches (IBIA and COFIA). There are two ways in which the liquidity thresholds could be set:
- i. Option 1: Professional expert judgment provided by both ESMA's dedicated working groups as well as by stakeholders and external experts, i.e. ESMA's consultative working groups. This expert judgement would be supported by thorough data and scenario analysis and due to consultation with stakeholders.
 - ii. Option 2: by having regard to what should be the minimum number of financial instruments or trading volume subject to transparency requirements (thus suggesting a 'coverage ratio'). For example, thresholds could be set so that in each class of financial instruments, [X]% of the traded volume is subject to transparency rules. This would be broadly comparable to the approach of the U.S. Commodities Futures Trading Commission which set 'block sizes' (the U.S. equivalent to LIS) for derivatives so that that 67% of the total notional falls below the block size.
39. ESMA has a preference for an approach which combines both options so that the thresholds are both justifiable from an expert's point of view and meet the general objective of MiFIR (i.e. improving transparency).

Segmentation into liquidity sub-categories (COFIA only)

40. Segmenting further the constituents of an asset class into homogenous and relevant classes of financial instruments is only necessary for the COFIA approach. On the contrary, when applying the IBIA there is no need to form sub-categories of financial instruments as the liquidity will be assessed at instrument level.
41. The sub-categories will be determined on the basis of a set of qualitative characteristics that are deemed relevant from a liquidity perspective (e.g. for bonds, this could include the type of bond, its residual maturity, its issuance size, etc.). Please refer to Annex 3.6.1 for more information in this regard.
42. **Initial assessment of the liquidity of the instruments/class** When conducting the liquidity assessment: a distinction must be made between the IBIA and the COFIA:
- i. For IBIA, the characteristics of all individual financial instruments within the relevant universe must be assessed against the relevant thresholds. As a result, each financial instrument will be considered as liquid or illiquid on the basis of an individual assessment.
 - ii. In COFIA the liquidity assessment will be performed for each of the different sub-categories. Each financial instrument will be considered liquid or illiquid based on the assessment of the class to which it belongs. Each financial instrument is assigned to the class on the basis of the qualitative criteria.

Periodic assessment of the liquidity of the instruments/class

43. Periodic review of whether the instrument is liquid - IBIA: At certain intervals, for example, every three months, quarterly or annually, each financial instrument would be assessed again against the liquidity threshold. The purpose of this assessment would be to assess those instruments which were already assigned as liquid or illiquid to determine whether the assessment is still appropriate. In order to conduct this periodic liquidity assessment ESMA must determine the following:
- i. The frequency, i.e. how often should the calculations be run? The higher the frequency the more responsive to changed market conditions and to seasonality effects to which the instruments might be subject to. On the other hand, a higher frequency increases the operational burden for both market participants and regulators and results in less stable thresholds.
 - ii. The time period over which data should be collected (e.g. monthly, quarterly, bi-annually, yearly). The longer the time period the higher the probability that it may be influenced by cyclical trading patterns. In addition, a long time period does not capture changes in market conditions easily. On the other hand, it supports the stability of the thresholds.
 - iii. The weights which should be allocated to the data. Should the latest data be considered more important than older data or should all data have equal weight (i.e. using an arithmetical average)? The higher the weights for the latest data the easier it is to reflect changes in current market conditions. However, there is some loss of stability with regard to the thresholds.
44. Periodic review of whether the class is liquid - COFIA: The liquidity of the sub-categories needs to be re-assessed periodically, this might occur with equal frequency to or more frequently than the periodic review of the liquidity thresholds. Furthermore, this review might also imply a revision of the sub-categories.

Periodic review of the liquidity thresholds

45. Periodic recalibration of the liquidity thresholds: this step is identical for IBIA and COFIA. After a certain time period it would be appropriate to recalibrate the liquidity thresholds in order to take into account the range of market conditions and the life-cycle of the financial instruments since the threshold was first/last set. As a result, the initial values for the liquidity thresholds (i.e. average frequency of transactions, average size of transactions, number of market participants, spreads) may be amended. Furthermore, in the case of COFIA the re-calibration of the liquidity thresholds always imply a re-assessment of the segmentation of the sub-categories, which as a result, might also change.
46. ESMA considers that recalibration of the liquidity thresholds would be appropriate no more frequently than every two years.

Advantages and disadvantages of COFIA and IBIA

47. ESMA is of the view that a certain degree of aggregation of financial instruments into classes is necessary as an excessive granularity raises a number of regulatory and practical issues including greater complexity and the problem of determining the liquidity of newly admitted to trading instruments for which no trading information is available. An important advantage of COFIA is that the assessment of newly issued financial instruments is straightforward. It is assumed that they share the liquidity characteristics of the sub-category to which they belong and once issued, they would be treated in the same way as all other constituents of the respective sub-category.

48. In contrast, under the IBIA it is not possible to assign easily newly issued instruments to a certain liquidity and transparency regime. As a consequence experience would need to be used to assign the financial instrument to a certain regime and then reconsidered once sufficient data was available to make a more empirical assignment. This is the procedure currently applied for the equity regime under MiFID I.
49. COFIA would also be consistent with, but not necessarily identical to, the approach taken in the context of the clearing and trading obligation under EMIR.
50. However, ESMA believes that sub-categories should be made of sufficiently homogeneous instruments in order to mitigate the risk of imposing requirements on certain instruments within the class for which transparency would be unsuitable. In this respect, IBIA avoids both the difficulties in defining homogeneous classes of financial instruments and the risk of falsely considering illiquid instruments as liquid and vice versa.
51. IBIA would not, however, be suitable for all types of financial instruments. For example, with regard to derivatives a certain aggregation based on characteristics such as the underlying, tenures and strike prices is considered necessary. Otherwise, the number of instruments which would need to be assessed would be far too high. As a consequence, ESMA considers that the IBIA would be an option for bonds and SFPs only.

ESMA preliminary analysis on bonds

52. ESMA has conducted a preliminary analysis on a sample of bonds in relation to the following criteria (Please refer to Annex 3.6.2 for a detailed explanation of the analysis): the '*average frequency of transactions*' and the '*average size of transactions*' '*over a range of market conditions*'.
53. ESMA has devised six scenarios where the three criteria are varied per scenario to determine how many bonds and what percentage of trading volume are captured under the different thresholds. The same analysis has been conducted across all bonds and for sovereign bonds only. Here below a summary of the results:

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
At least x trades during the 1-year period	480	480	240	240	240	2,400
Traded on at least x number of different days during the 1-year period	120	240	240	120	120	120
Average daily volume is at least x EUR	100,000	100,000	1,000,000	1,000,000	10,000,000	1,000,000
ALL BONDS						
Percentage of bonds captured as liquid	4.71%	1.61%	1.27%	3.39%	0.93%	1.00%
Percentage of volume qualified as liquid	86.67%	62.90%	62.42%	86.91%	82.19%	65.93%
Percentage of trades captured as liquid	75.40%	52.44%	45.70%	60.41%	35.26%	47.97%
SOVEREIGN BONDS						
Percentage of bonds captured as liquid	13.82%	8.06%	7.45%	13.57%	8.25%	5.95%
Percentage of volume captured as liquid	93.92%	83.17%	83.15%	94.60%	93.43%	86.40%
Percentage of trades captured as liquid	93.47%	83.45%	81.71%	90.69%	82.73%	82.06%

Table 15: Summary of the results

Q112: Which is your preferred scenario or which combination of thresholds would you propose for defining a liquid market for bonds or for a sub-category of bonds (sovereign, corporate, covered, convertible, etc.)? Please provide reasons for your answer.

Proposal

54. With regard to the determination of the liquidity thresholds ESMA has a preference for an approach combining Option 1 with Option 2. With regard to the usage of IBIA and/or COFIA ESMA favours using COFIA approach. This approach has the advantage of being more predictable and stable as well as suitable for all types of financial instruments. However, ESMA is aware that conducting the proper grouping of financial instruments into homogenous and relevant classes of financial instruments is challenging. In particular, a balance must be struck between the goal of being as precise as possible and the regulatory burden which complex solutions would carry for both market participants and regulators.

- Q113: Should the concept of liquid market be applied to financial instruments (IBIA) or to classes of financial instruments (COFIA)? Would be appropriate to apply IBIA for certain asset classes and COFIA to other asset classes? Please provide reasons for your answers**
- Q114: Do you have any (alternative) proposals how to take the ‘range of market conditions and the life-cycle’ of (classes of) financial instruments into account - other than the periodic reviews described in the sections periodic review of the liquidity threshold and periodic assessment of the liquidity of the instrument class, above?**
- Q115: Do you have any proposals on how to form homogenous and relevant classes of financial instruments? Which specifics do you consider relevant for that purpose? Please distinguish between bonds, SFPs and (different types of) derivatives and across qualitative criteria (please refer to Annex 3.6.1).**
- Q116: Do you think that, in the context of the liquidity thresholds to be calculated under MiFID II, the classification in Annex 3.6.1 is relevant? Which product types or sub-product types would you be inclined to create or merge? Please provide reasons for your answers**

Temporary suspension of transparency requirements

Analysis

55. Articles 9(4) and 11(2) of MiFIR allow NCAs to temporarily suspend pre-trade and post-trade transparency requirements for trading venues and for investment firms when the liquidity of a class of financial instruments falls below a specified threshold. ESMA is required to submit to the Commission for endorsement draft RTS on the parameters and methods for calculating the threshold.
56. MiFIR requires the threshold to be set in such a way that when it is reached it should represent a significant decline in liquidity across all venues within the Union based on the criteria used under Article 2(1)(17)(a) of MiFIR.

Article 9(4), MiFIR

The competent authority responsible for supervising one or more trading venues on which a class of bond, structured finance product, emission allowance or derivative is traded may, where the liquidity of that class of financial instrument falls below a specified threshold, temporarily suspend the obligations referred to in Article 8. The specified threshold shall be defined based on the basis of objective criteria specific to the market for the financial instrument concerned. Notification of such temporary suspension shall be published on the website of the relevant competent authority.

The temporary suspension shall be valid for an initial period not exceeding three months from the date of its publication on the website of the relevant competent authority. Such a suspension may be renewed for further periods not exceeding three months at a time if the grounds for the temporary suspension continue to be applicable. Where the temporary suspension is not renewed after that three-month period, it shall automatically lapse.

Before suspending or renewing the temporary suspension under this paragraph of the obligations referred to in Article 8, the relevant competent authority shall notify ESMA of its intention and provide an explanation. ESMA shall issue an opinion to the competent authority as soon as practicable

on whether in its view the suspension or the renewal of the temporary suspension is justified in accordance with the first and second subparagraphs.

Article 11(2), MiFIR

2. The competent authority responsible for supervising one or more trading venues on which a class of bond, structured finance product, emission allowance or derivative is traded may, where the liquidity of that class of financial instrument falls below the threshold determined in accordance with the methodology as referred to in Article 9(5)(a), temporarily suspend the obligations referred to in Article 10. That threshold shall be defined based on objective criteria specific to the market for the financial instrument concerned. Such temporary suspension shall be published on the website of the relevant competent authority.

The temporary suspension shall be valid for an initial period not exceeding three months from the date of its publication on the website of the relevant competent authority. Such a suspension may be renewed for further periods not exceeding three months at a time if the grounds for the temporary suspension continue to be applicable. Where the temporary suspension is not renewed after that three-month period, it shall automatically lapse.

Before suspending or renewing the temporary suspension of the obligations referred to in Article 10, the relevant competent authority shall notify ESMA of its intention and provide an explanation. ESMA shall issue an opinion to the competent authority as soon as practicable on whether in its view the suspension or the renewal of the temporary suspension is justified in accordance with the first and second subparagraphs.

57. With regard to these rules, Article 9(5)(e) of MiFIR requires ESMA to develop draft RTS in order to specify the financial instruments or classes of financial instruments for which there is not a liquid market. In addition, ESMA is required to develop draft RTS for the liquidity thresholds in the context of temporary suspensions of pre-trade and post-trade transparency (Article 9(5)(a) of MiFIR).

Article 9(5)(a) and (e), MiFIR

[...]

1. *ESMA shall develop draft regulatory technical standards to specify the following:*

(a) the parameters and methods for calculating the threshold of liquidity referred to in paragraph 4 in relation to the financial instrument. The parameters and methods for Member States to calculate the threshold shall be set in such a way that when the threshold is reached, it represents a significant decline in liquidity across all venues within the Union for the financial instrument concerned based on the criteria used under Article 2(1)(17) of this Regulation;

[...]

(e) the financial instruments or the classes of financial instruments for which there is not a liquid market where pre-trade disclosure may be waived under paragraph 1.

58. It should be noted that while there is a significant overlap between the 'liquid market' and the 'dynamic liquidity threshold', the two provisions have distinct rationales and produce different effects. While the former deals with more structural aspects of liquidity and follows the usual timeline of the ESMA waiver process, the latter is meant to address an unexpected and sudden drop in liquidity and allows an NCA to immediately suspend all transparency obligations for a relatively short period. With regard to post-trade transparency, while the former permits deferred publication, the latter suspends any requirement to make public the price and size of executed transactions.
59. The Short Selling Regulation adopts a similar provision with respect to suspending restrictions on uncovered short sales where the liquidity of sovereign debt falls below a certain threshold. More specifically the Commission's delegated regulation measures liquidity in terms of turnover and allows the temporary suspension of restrictions on uncovered short sales in sovereign debt when the turnover of a month falls below the fifth percentile of the monthly volume traded in the previous 12 months.⁶⁷
60. ESMA notices that the temporary suspension of liquidity is one of the tools provided by MiFID to NCAs to preserve fair and orderly markets in the face of rapid and adverse market developments. For this reason ESMA understands that the power to completely suspend transparency should be used only in exceptional market circumstances and that the threshold should be set at a sufficiently low level in order to avoid unnecessary fluctuations in transparency requirements and maintain a level playing field in the transparency requirements across the Union.
61. There may be a decline in liquidity during crises. In those cases, a quick and straightforward assessment of liquidity seems to be of utmost importance. The bundle of different criteria used for assessing liquidity in 'normal' circumstance does not allow measuring a decline in liquidity in percent easily. However, since Article 9(4) of MiFIR only asks to specify an 'objective criterion' a subset of this bundle should be sufficient.

Proposal

62. ESMA proposes as parameters and methods for imposing a temporary suspension of liquidity the following:
 - i. The average daily turnover (ADT). A decline in liquidity could be expressed as a percentage. The 'specified threshold' would be met if the current ADT (measured over the last 20 trading days) falls below a certain percentage of the ADT as calculated at the latest official liquidity assessment. With regard to classes of financial instruments for which there is a liquid market the value shall be 80 percent, with regard to classes of financial instruments for which there is no liquid market the value shall be 60 percent.
 - ii. However, in extremely uneven distributions this measure might not correctly capture the decline. In order to avoid misjudgements, the quantitative data on the ADT should be complemented by qualitative arguments thereby considering all criteria used for assessing liquidity (i.e. average frequency of transactions, average size of transactions, spreads, number of participants). In its

⁶⁷ See Article 13(3) of the Regulation (EU) No 236/2012 and Article 22 of the Regulation (EU) No 918/2012 on short selling and certain aspects of credit default swaps.



notification to ESMA, the relevant competent authority should cover a period of no less than one year.

63. Before suspending or renewing the temporary suspension the relevant competent authority shall provide data and arguments to ESMA in order to allow for forming an opinion. This information shall comprise at a minimum the items described above.

Q117: Do you agree with the proposed approach? If not, please provide rationales and alternatives.

Q118: Do you agree with the proposed thresholds? If not, please provide rationales and alternatives.

Annex 3.6.1. Financial instruments taxonomy and metrics for the calculation of the liquidity criteria (average size of transaction)

64. The non-equity universe includes very heterogeneous types of financial instrument. An appropriate categorisation is needed for the purpose of MiFID II / MiFIR pre-trade and post-trade transparency regimes.
65. The tables reproduced below present a potential categorisation of the non-equity financial instruments. These tables aim at proposing, in the context of the new transparency regime, classes and subclasses that would be relevant from a liquidity perspective.
66. In order to map the non-equity universe, ESMA has based its analysis on three main sources:
 - i. Standard market practises. This includes feedback received for external stakeholders.
 - ii. Taxonomies that have been established by external stakeholders - e.g. as far as derivatives are concerned this includes the ISDA taxonomy, the classification proposed by the Bank for International Settlements (BIS), US Commodity Futures Trading Commission, etc.; and,
 - iii. Other pieces of European legislation that could be relevant in the context of MiFID II / MiFIR – e.g. EMIR.
67. The tables below intend to present preliminary classification that could serve as a basis for assessing the liquidity of the non-equity financial instrument. However, the segmentation proposed below should not be interpreted as final and does not preclude from having a different (and potentially simpler) level of granularity.
68. ESMA is aware that the final categorisation, if any, should be sufficiently clear and simple for national Competent Authorities to implement and oversee as well as for market participants to understand and comply with on a pan-European basis. On the other hand, the level of granularity should allow for grouping financial instruments in homogenous liquidity categories.

1. Bonds

Financial instrument	Product types	Sub-product types	Other potential liquidity sub-categories	Proposed metrics	
Bonds	Sovereign bonds	EU Sovereign debt (Articles 4(1)(60) and 4(1)(61) MiFID II)	Size at issuance	Nominal traded * price per unit	
		non EU sovereign debt	Residual maturity		
	Municipal bonds	Corporate bonds	Senior debt		Class of bonds (sovereign vs non sovereign)
			Subordinated debt		Structure (Straight bonds, zeros, discounted papers, floating rate notes, structures interest linked notes)
	Covered bonds	Convertible bonds			Issuer listed / non listed
					Size at issuance: EUR 0-500Mio / 500Mio-999Mio / Above 1 bn
			Residual maturity		
			Type of underlying assets (Public sector, Mortgage, others)		
			Size at issuance		
			Residual maturity		

2. Structured finance products

Financial instrument	Product types	Sub-product types	Other potential liquidity sub-categories	Proposed metrics		
Structured Finance Products	MBS	RMBS	Size at issuance	Nominal traded * price per unit		
		CMBS				
		Mixed				
	Other ABS	SME ABS			Residual maturity	
		Auto-loans ABS				
		Consumer loans ABS				
		Credit card loans ABS				
		ABS backed by leases to individuals and/or businesses				Currency
	CDO					
	ABCP					
Others (WBS, etc.)						

3. Emission allowances

Financial instrument	Product types	Sub-product types	Other potential liquidity sub-categories	Proposed metrics
Emission Allowances				Number of certificates

4. Derivatives

a) Securitised derivatives

Financial instrument	Product types	Sub-product types	Other potential liquidity sub-categories	Proposed metrics
Securitised derivatives	Covered warrants	/	Unit quotation (i.e. warrants, bonus certificates, express certificates etc.)	Quantity * price per unit
	Certificates derivatives		Percentage quotation (i.e. reverse convertibles, some guarantee certificates)	Nominal traded * price per unit
	Negotiable rights		Residual maturity	Whereby: Nominal traded = nominal per unit or contract size * quantity (number of units traded)
	Structured MTNs		Underlying	
	Others		Deliverable currency	

b) Derivative contracts

Financial instrument	Product types	Sub-product types	Other potential liquidity sub-categories	Proposed metrics	
Interest Rate Derivatives	Futures	/	Single currency vs multiple currencies contracts	Notional amount of traded contracts (i.e. number of contracts * contract value) Note: Number of contracts could be "1"	
	Options		EFD options		Underlying index(es) or interest rate
			Caps, floors & collars		Notional currency
			Debt options		Maturity
			Swaptions		Plain vanilla products vs products incorporating non standard features (e.g. embedded options, conditional notional, etc.)
	Interest Rate Swaps		Fixed-to-fixed		
			Fixed-to-floating (plain vanilla)		
			Floating-to-floating (basis swaps)		
			Inflation		
	OIS (Overnight Indexed Swap)				
Forward Rate Agreement					
Others	Exotic				

Financial instrument	Product types	Sub-product types	Other potential liquidity sub-categories	Proposed metrics	
Foreign Exchange Derivatives	Futures	/	Currency pair	Notional amount of traded contracts (i.e. number of contracts * contract value) Note: Number of contracts could be "1"	
	Options		Non Deliverable Option - NDO (only European style options are NDO - not any other FX options settled in non-deliverable currency)		Notional currency
			Vanilla Option (European and American)		Deliverable currency
	Forwards		Cash Settled Forwards		Maturity
	FX swaps		NDF		Settlement type
	Others		Simple exotic (Barrier and digital)		
Complex exotic					

Financial instrument	Product types	Sub-product types	Other potential liquidity sub-categories	Proposed metrics
Equity Derivatives	Futures	/	Type of return	Spot notional amount of traded contracts
	Options		Type of underlying asset (Single name / Single index / Basket)	(i.e. number of contracts * contract size * spot price of the underlying share or index; whereby: contract size = number of shares to be deliver for one contract)
	Swaps		Deliverable currency	
	Portfolio Swaps		Maturity	
	Forwards		Underlying	
	Other			

Financial instrument	Product types	Sub-product types	Other potential liquidity sub-categories	Proposed metrics	
Commodity Derivatives	Metals (ME)	Precious (PR)	Gold	Transaction type (Spot fwd / Swap / Option / Loan lease / Exotic / Transmission) Underlying Deliverable currency Settlement type (physical vs cash)	Notional amount of traded contracts (i.e. number of contracts * contract value) Note: Number of contracts could be "1"
			Silver		
		Non Precious (NP)	Platinum		
			Palladium		
			Aluminium Alloy		
			Aluminium		
			Copper		
			Lead		
			Nickel		
			Tin		
			Zinc		
			North American Special Aluminum Alloy Contract (NASAAC)		
		Steel			
	Cobalt				
	Molybdenum				
	Energy (EN)	Oil (OI)			
		Natural gas (NG)			
		Coal (CO)			
		Electricity (EL)			
		Inter-energy (IE)			
	Index (IN)				
	Agricultural (AG)	Grains oilseeds (GO)			
		Dairy (DA)			
Livestock (LI)					
Forestry (FO)					
Softs (SO)					

Financial instrument	Product types	Sub-product types	Other potential liquidity sub-categories	Proposed metrics	
Credit Derivatives	Single name	Corporate financial	Product types and Sub-product types	Notional amount of traded contracts (i.e. number of contracts * contract value)	
		Corporate non-financial			
		Recovery CDS			
		Loans			
		Muni			
		Sovereign			
	ABS				
	Total Return Swaps				Specific underlying
	Swaptions	iTraxx			Maturity
		Muni			Deliverable currency
		CDX			
		MCDX			
		Sovereign			
		Corporate			
	Corporate				
	Exotic	Structured CDS	Product types and Sub-product types	Note: Number of contracts could be "1"	
		Other			
		CDX			
	Index tranchéd	LCDX			
		MCDX			
CDX Structured Tranche					
iTraxx					
iTraxx Structured Tranche					
ABX					
Index untranchéd	CDX	"on-the-run" vs "off-the-run"			
	LCDX	Series			
	MCDX				
	iTraxx				
	ABX				
	CMBX				
	IOS				
	MBX				
	PO				
	PrimeX				
	TRX				
	TRX				

Financial instrument	Product types	Sub-product types	Other potential liquidity sub-categories	Proposed metrics
Others derivatives	Environmental	Weather		Notional amount of traded contracts = contract value (or price multiplier) * number of contracts
		Emissions		
	Freights			
Exotic			Note: Number of contracts could be "1"	

c) Contracts for difference

Financial instrument	Product types	Sub-product types	Other potential liquidity sub-categories	Proposed metrics
Contracts for difference	Equity underlying			Notional amount of traded contracts = contract value (or price multiplier) * number of contracts
	Interest rate underlying			
	Commodities underlying			
	Currencies underlying			
	Credit underlying			
			Note: Number of contracts could be "1"	

Annex 3.6.2. Preliminary analysis for bonds

Summary

69. ESMA has undertaken an analysis on a sample of bonds in relation to the following criteria, listed in the definition of *'liquid market'* under article 2(1)(17)(a) MiFIR: the *'average frequency of transactions'* and the *'average size of transactions'* *'over a range of market conditions'*. The purpose of this analysis was to determine which bonds could be considered to have a *'liquid market'* based on these criteria. The other criteria listed under the definition – *'number and type of market participant'* and *'average size of spreads'* (the latter only to be taken into consideration *'where available'*) – were not considered in this analysis.
70. Using the results of the analysis, ESMA has devised six scenarios where the below three criteria are varied per scenario as to determine how many bonds and what percentage of trading volume are captured under the different thresholds:
- i. at least x trades per bond during the period;
 - ii. the bond is traded on at least x of different days during the period; and
 - iii. the average daily volume of a bond is at least x EUR (e.g. total turnover over the period divided by the number of trading days).

Each scenario therefore is based on a different combination of these three criteria which generate a different liquidity threshold. Based on these thresholds ESMA then determined the size of the overall market – in terms of number of instruments and turnover – deemed to be liquid.

Methodology overview

71. The scenarios were generated by applying the following steps:
- i. ESMA produced a list of existing bonds admitted to trading on regulated markets in the Union. Instruments with a *'Validity End Date'* after 30 June 2012 were selected from ESMA's Reference Data System (RDS) database. According to the Classification of Financial Instruments (CFI) code, instruments included in the data set are either corporate bonds, covered bonds, convertible bonds, or Medium Term Notes. A small sample of sovereign debt (representing 5.80% of the whole sample) was also identified within the data set on the basis of different data sources. MiFIR imposes some specific rules on sovereign bond trading and defines sovereign bonds as a separate instrument class. Therefore, ESMA considered it necessary to identify and analyse sovereign bonds on a separate basis.
 - ii. The data set includes bond data for 21 EU and EEA countries for the period 1 July 2012 – 30 June 2013 with the aggregate statistics provided to ESMA by the NCAs. In total, data on 73,619 bonds were reported.
 - iii. ESMA defined six scenarios as described above, where the thresholds for each of the three criteria were varied in each scenario to test how the liquidity criteria might work in practice. Table 1 provides the thresholds set for these six scenarios.

- iv. Each of the six scenarios has been analysed on the basis of different time periods for the calculations: annual, semi-annual and quarterly time periods. Furthermore, since both bonds issued close to the end of the observation period and bonds expiring close to the beginning of the observation period may not meet the liquidity thresholds because they traded for only a few days, 'refined' thresholds for the 'number of days traded' and the 'number of trades' have been used. In other words, the thresholds have been rebased on the number of trading days available for the issued/matured bond for the specific period. The results related to the individual scenarios for all bonds are described in tables 2.1 to 2.6. The results relating to sovereign bonds only are described in tables 3.1 to 3.6.

Findings

72. The most important findings are as follows:

- i. The distribution of liquidity with regard to bonds is extremely skewed. Roughly 55% of the whole sample (40,492 bonds – of which 2,041 are sovereign bonds) did not trade at all during the one year period covered.
- ii. Depending on the specification of the scenarios, only 1 to 5% of all bonds contained in the sample could be considered as liquid. They cover between 62 to 87% of the whole volume traded during the period and between 35 to 75% of the total number of trades. However, when the analysis is restricted to sovereign bonds only, the percentage of bonds considered as liquid is between 6 and 14% and they cover between 83 to 95% of the volume traded and 82 to 94% of the number of trades (please refer to Table 1 which summarises the calculations results over the annual period).

Conclusions

73. ESMA draws the following conclusions with regard to the three criteria used in the scenarios:

- i. The results were most sensitive to any change in the second criterion (minimum number of trading days on which at least one transaction occurred). The significantly different results of scenarios 1 and 2 (a minimum number of 120 days where the bonds were traded versus a minimum of 240 days, i.e. traded roughly every trading day in the year) highlight this point: in scenario 1 4.71% of bonds covering 86.67% of volume were captured as liquid compared to 1.61% of bonds covering 62.90% of volume in scenario 2, the difference in volume captured as liquid is more than 20%. For sovereign bonds, the difference in volume captured as liquid is more than 10% – 13.82% of bonds covering 93.92% of volume captured as liquid in scenario 1 compared to 8.06% of bonds covering 83.17% of volume captured as liquid in scenario 2.
- ii. Varying 'the number of trades' criterion also impacted the results, this is highlighted by comparing scenarios 4 and 6 (240 trades overall in the year versus 2,400): in scenario 4 3.39% of bonds covering 86.91% of trading were captured as liquid compared to 1.00% of bonds covering 65.93% of volume in scenario 6 – the difference of volume captured being roughly 20% for all bonds. For sovereign bonds the difference in volume captured is 8% - 13.57% of bonds covering 94.60% of volume captured as liquid in scenario 4 compared to 5.95% of bonds covering 86.40% of volume captured as liquid in scenario 6).
- iii. The 'average size of transaction' criterion seems to have the least impact on the results.

74. In general, when applying semi-annual or quarterly thresholds, the percentage of bonds qualifying as liquid and their related volume increases. This could lead to the conclusion that if bonds are characterised by seasonality effects, a shorter observation period combined with more frequent calculation may better accommodate their intrinsic characteristics.
75. Finally, using ‘refined’ thresholds allows those bonds which are still heavily traded but for which the number of trading days available during the period is lower than the total number of trading sessions of the period because of suspension, issuance close to the end of the period, or maturity close to the beginning of the period, to still be qualified as liquid. However, rebasing the thresholds for those instruments increases the calculation burden. Please refer to Table 4 for the details on the “refined” thresholds calculation.
76. Finally, using all bonds the following was calculated:
 - i. The number of bonds expiring in a quarter that would be deemed to be liquid/illiquid in that quarter (using the ‘refined’ thresholds) and the related number of those bonds that were also liquid/illiquid in the previous quarter;
 - ii. The number of bonds issued in a quarter that would be deemed to be liquid/illiquid in that quarter (using the ‘refined’ thresholds) and the related number of those bonds that were also liquid/illiquid in the subsequent quarter.

From this analysis resulted that less than 10% of newly issued bonds qualify as liquid in the first quarter of trading. However, between 45 and 75% of those deemed to be liquid in the first quarter of trading were liquid also in the subsequent quarter. From this it can be inferred that trading activity slows down after the first quarter. Similar results are obtained for maturing bonds: between 80 and 90% of bonds qualified as liquid in the last quarter of trading were liquid also in the penultimate quarter of trading. However, the analysis is less relevant since only 2% of bonds were deemed to be liquid in the last quarter of trading.

Table 1 – Liquid market results across six different scenarios (annual period)

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5	Scenario 6
At least x trades during the 1-year period	480	480	240	240	240	2,400
Traded on at least x number of different days during the 1-year period	120	240	240	120	120	120
Average daily volume is at least x EUR	100,000	100,000	1,000,000	1,000,000	10,000,000	1,000,000
ALL BONDS						
Percentage of bonds captured as liquid	4.71%	1.61%	1.27%	3.39%	0.93%	1.00%
Percentage of volume qualified as liquid	86.67%	62.90%	62.42%	86.91%	82.19%	65.93%
Percentage of trades captured as liquid	75.40%	52.44%	45.70%	60.41%	35.26%	47.97%
SOVEREIGN BONDS						
Percentage of bonds captured as liquid	13.82%	8.06%	7.45%	13.57%	8.25%	5.95%
Percentage of volume captured as liquid	93.92%	83.17%	83.15%	94.60%	93.43%	86.40%
Percentage of trades captured as liquid	93.47%	83.45%	81.71%	90.69%	82.73%	82.06%

Table 2.1 – Analysis results - scenario 1 – all bonds

SCENARIO #1	1Y	H1	H2	Q1	Q2	Q3	Q4
ALL							
Liquidity Parameters							
at least (>=) X trades during the period	480	240	240	120	120	120	120
at least (>=) X days traded during the period	120	60	60	30	30	30	30
average daily turnover at least (>=) €	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Statistics							
tot # of bonds for the period	73,619	67,213	62,250	64,070	61,604	59,146	55,490
tot turnover for the period Bn €	33,672,243,971,369	16,008,825,710,514	17,663,418,260,855	7,716,498,587,008	8,292,327,123,506	8,825,244,606,433	8,838,173,654,422
total number of trades of the period for all bonds (in thousands)	13,170	6,694	6,477	3,246	3,448	3,176	3,301
Results							
# of bonds of this category	3468	3350	3417	3326	3290	3420	3353
which represents x% of the total # of bonds in the period	4.71%	4.98%	5.49%	5.19%	5.34%	5.78%	6.04%
total turnover over the period for this category (in bn)	29,185	14,433	15,945	7,028	7,547	8,132	8,059
which represents Bn € of the total turnover of the period for all bonds	86.67%	90.16%	90.27%	91.08%	91.01%	92.15%	91.18%
# of trades of this category (in thousands)	9,931	5,391	5,259	2,660	2,766	2,643	2,621
which represents x% of the total number of trades of the period for all bonds	75.40%	80.54%	81.20%	81.96%	80.22%	83.21%	79.40%
# of bonds issued in the period	12,562	6,156	6,406	3,013	3,143	3,302	3,104
# of bonds expired in the period	11,322	5,288	6,034	2,617	2,671	3,499	2,535
# of bonds issued or expired in the period	23,697	11,369	12,406	5,609	5,773	6,792	5,629
# of bonds of this category using "refined" thresholds	4,049	3,581	3,660	3,475	3,412	3,545	3,482

Table 2.2 – Analysis results - scenario 2 – all bonds

SCENARIO #2							
ALL	1Y	H1	H2	Q1	Q2	Q3	Q4
Liquidity Parameters							
at least (>=) X trades during the period	480	240	240	120	120	120	120
at least (>=) X days traded during the period	240	120	120	60	60	60	60
average daily turnover at least (>=) €	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Statistics							
tot # of bonds for the period	73,619	67,213	62,250	64,070	61,604	59,146	55,490
tot turnover for the period Bn €	33,672,243,971,369	16,008,825,710,514	17,663,418,260,855	7,716,498,587,008	8,292,327,123,506	8,825,244,606,433	8,838,173,654,422
total number of trades of the period for all bonds (in thousands)	13,170	6,694	6,477	3,246	3,448	3,176	3,301
Results							
# of bonds of this category	1187	1457	1314	1704	1466	1484	1408
which represents x% of the total # of bonds in the period	1.61%	2.17%	2.11%	2.66%	2.38%	2.51%	2.54%
total turnover over the period for this category (in bn)	21,179	11,435	11,929	6,015	5,883	6,408	6,216
which represents Bn € of the total turnover of the period for all bonds	62.90%	71.43%	67.54%	77.94%	70.95%	72.61%	70.33%
# of trades of this category (in thousands)	6,907	4,143	3,815	2,225	2,075	2,071	2,021
which represents x% of the total number of trades of the period for all bonds	52.44%	61.90%	58.90%	68.54%	60.18%	65.21%	61.24%
# of bonds issued in the period	12,562	6,156	6,406	3,013	3,143	3,302	3,104
# of bonds expired in the period	11,322	5,288	6,034	2,617	2,671	3,499	2,535
# of bonds issued or expired in the period	23,697	11,369	12,406	5,609	5,773	6,792	5,629
# of bonds of this category using "refined" thresholds	1,536	1,632	1,509	1,850	1,560	1,619	1,512

Table 2.3 – Analysis results - scenario 3 – all bonds

SCENARIO #3							
ALL	1Y	H1	H2	Q1	Q2	Q3	Q4
Liquidity Parameters							
at least (>=) X trades during the period	240	120	120	60	60	60	60
at least (>=) X days traded during the period	240	120	120	60	60	60	60
average daily turnover at least (>=) €	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Statistics							
tot # of bonds for the period	73,619	67,213	62,250	64,070	61,604	59,146	55,490
tot turnover for the period Bn €	33,672,243,971,369	16,008,825,710,514	17,663,418,260,855	7,716,498,587,008	8,292,327,123,506	8,825,244,606,433	8,838,173,654,422
total number of trades of the period for all bonds (in thousands)	13,170	6,694	6,477	3,246	3,448	3,176	3,301
Results							
# of bonds of this category	932	1160	1087	1289	1162	1202	1109
which represents x% of the total # of bonds in the period	1.27%	1.73%	1.75%	2.01%	1.89%	2.03%	2.00%
total turnover over the period for this category (in bn)	21,020	11,417	11,915	6,002	5,873	6,400	6,206
which represents Bn € of the total turnover of the period for all bonds	62.42%	71.32%	67.46%	77.79%	70.83%	72.51%	70.22%
# of trades of this category (in thousands)	6,019	3,698	3,402	1,929	1,835	1,819	1,777
which represents x% of the total number of trades of the period for all bonds	45.70%	55.24%	52.53%	59.43%	53.22%	57.29%	53.85%
# of bonds issued in the period	12,562	6,156	6,406	3,013	3,143	3,302	3,104
# of bonds expired in the period	11,322	5,288	6,034	2,617	2,671	3,499	2,535
# of bonds issued or expired in the period	23,697	11,369	12,406	5,609	5,773	6,792	5,629
# of bonds of this category using "refined" thresholds	1,169	1,288	1,225	1,401	1,239	1,306	1,182

Table 2.4 – Analysis results - scenario 4 – all bonds

SCENARIO #4							
ALL	1Y	H1	H2	Q1	Q2	Q3	Q4
Liquidity Parameters							
at least (>=) X trades during the period	240	120	120	60	60	60	60
at least (>=) X days traded during the period	120	60	60	30	30	30	30
average daily turnover at least (>=) €	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Statistics							
tot # of bonds for the period	73,619	67,213	62,250	64,070	61,604	59,146	55,490
tot turnover for the period Bn €	33,672,243,971,369	16,008,825,710,514	17,663,418,260,855	7,716,498,587,008	8,292,327,123,506	8,825,244,606,433	8,838,173,654,422
total number of trades of the period for all bonds (in thousands)	13,170	6,694	6,477	3,246	3,448	3,176	3,301
Results							
# of bonds of this category	2493	2843	2986	2722	2786	2959	2836
which represents x% of the total # of bonds in the period	3.39%	4.23%	4.80%	4.25%	4.52%	5.00%	5.11%
total turnover over the period for this category (in bn)	29,264	14,707	16,332	7,117	7,706	8,296	8,207
which represents Bn € of the total turnover of the period for all bonds	86.91%	91.87%	92.46%	92.23%	92.93%	94.00%	92.86%
# of trades of this category (in thousands)	7,956	4,665	4,565	2,252	2,395	2,270	2,236
which represents x% of the total number of trades of the period for all bonds	60.41%	69.69%	70.48%	69.37%	69.46%	71.48%	67.74%
# of bonds issued in the period	12,562	6,156	6,406	3,013	3,143	3,302	3,104
# of bonds expired in the period	11,322	5,288	6,034	2,617	2,671	3,499	2,535
# of bonds issued or expired in the period	23,697	11,369	12,406	5,609	5,773	6,792	5,629
# of bonds of this category using "refined" thresholds	2,838	3,005	3,140	2,830	2,875	3,050	2,916

Table 2.5 – Analysis results - scenario 5 – all bonds

SCENARIO #5							
ALL	1Y	H1	H2	Q1	Q2	Q3	Q4
Liquidity Parameters							
at least (>=) X trades during the period	240	120	120	60	60	60	60
at least (>=) X days traded during the period	120	60	60	30	30	30	30
average daily turnover at least (>=) €	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Statistics							
tot # of bonds for the period	73,619	67,213	62,250	64,070	61,604	59,146	55,490
tot turnover for the period Bn €	33,672,243,971,369	16,008,825,710,514	17,663,418,260,855	7,716,498,587,008	8,292,327,123,506	8,825,244,606,433	8,838,173,654,422
total number of trades of the period for all bonds (in thousands)	13,170	6,694	6,477	3,246	3,448	3,176	3,301
Results							
# of bonds of this category	684	718	735	673	728	719	724
which represents x% of the total # of bonds in the period	0.93%	1.07%	1.18%	1.05%	1.18%	1.22%	1.30%
total turnover over the period for this category (in bn)	27,675	13,816	15,360	6,685	7,274	7,805	7,753
which represents Bn € of the total turnover of the period for all bonds	82.19%	86.30%	86.96%	86.63%	87.72%	88.44%	87.72%
# of trades of this category (in thousands)	4,644	2,481	2,469	1,217	1,400	1,204	1,244
which represents x% of the total number of trades of the period for all bonds	35.26%	37.06%	38.12%	37.51%	40.61%	37.92%	37.68%
# of bonds issued in the period	12,562	6,156	6,406	3,013	3,143	3,302	3,104
# of bonds expired in the period	11,322	5,288	6,034	2,617	2,671	3,499	2,535
# of bonds issued or expired in the period	23,697	11,369	12,406	5,609	5,773	6,792	5,629
# of bonds of this category using "refined" thresholds	796	764	778	716	756	741	745

Table 2.6 – Analysis results - scenario 6 – all bonds

SCENARIO #6							
ALL	1Y	H1	H2	Q1	Q2	Q3	Q4
Liquidity Parameters							
at least (>=) X trades during the period	2400	1200	1200	600	600	600	600
at least (>=) X days traded during the period	120	60	60	30	30	30	30
average daily turnover at least (>=) €	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Statistics							
tot # of bonds for the period	73,619	67,213	62,250	64,070	61,604	59,146	55,490
tot turnover for the period Bn €	33,672,243,971,369	16,008,825,710,514	17,663,418,260,855	7,716,498,587,008	8,292,327,123,506	8,825,244,606,433	8,838,173,654,422
total number of trades of the period for all bonds (in thousands)	13,170	6,694	6,477	3,246	3,448	3,176	3,301
Results							
# of bonds of this category	735	836	843	818	832	849	810
which represents x% of the total # of bonds in the period	1.00%	1.24%	1.35%	1.28%	1.35%	1.44%	1.46%
total turnover over the period for this category (in bn)	22,201	11,269	11,974	5,488	5,789	6,050	5,973
which represents Bn € of the total turnover of the period for all bonds	65.93%	70.39%	67.79%	71.12%	69.81%	68.55%	67.58%
# of trades of this category (in thousands)	6,317	3,685	3,535	1,780	1,920	1,751	1,747
which represents x% of the total number of trades of the period for all bonds	47.97%	55.04%	54.58%	54.84%	55.69%	55.14%	52.93%
# of bonds issued in the period	12,562	6,156	6,406	3,013	3,143	3,302	3,104
# of bonds expired in the period	11,322	5,288	6,034	2,617	2,671	3,499	2,535
# of bonds issued or expired in the period	23,697	11,369	12,406	5,609	5,773	6,792	5,629
# of bonds of this category using "refined" thresholds	939	924	916	880	884	900	847

Table 3.1 – Analysis results - scenario 1 – sovereign bonds only

SCENARIO #1							
SOVEREIGN DEBT ONLY	1Y	H1	H2	Q1	Q2	Q3	Q4
Liquidity Parameters							
at least (>=) X trades during the period	480	240	240	120	120	120	120
at least (>=) X days traded during the period	120	60	60	30	30	30	30
average daily turnover at least (>=) €	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Statistics							
tot # of bonds for the period	4,268	3,832	3,933	3,700	3,635	3,707	3,723
tot turnover for the period Bn €	22,257,339,591,101	10,678,715,638,258	11,578,623,952,843	5,156,566,998,076	5,522,148,640,181	5,991,930,145,930	5,586,693,806,913
total number of trades of the period for all bonds (in thousands)	3,686	1,911	1,774	977	935	914	860
Results							
# of bonds of this category	590	579	619	584	560	600	622
which represents x% of the total # of bonds in the period	13.82%	15.11%	15.74%	15.78%	15.41%	16.19%	16.71%
total turnover over the period for this category (in bn)	20,905	10,287	11,139	4,943	5,399	5,845	5,385
which represents Bn € of the total turnover of the period for all bonds	93.92%	96.33%	96.20%	95.85%	97.78%	97.55%	96.38%
# of trades of this category (in thousands)	3,445	1,813	1,666	921	888	866	813
which represents x% of the total number of trades of the period for all bonds	93.47%	94.84%	93.87%	94.27%	94.98%	94.77%	94.48%
# of bonds issued in the period	762	326	436	194	132	210	226
# of bonds expired in the period	17	10	7	3	7	3	4
# of bonds issued or expired in the period	772	335	441	197	139	213	230
# of bonds of this category using "refined" thresholds	647	599	645	606	568	615	638

Table 3.2 – Analysis results - scenario 2 – sovereign bonds only

SCENARIO #2							
SOVEREIGN DEBT ONLY	1Y	H1	H2	Q1	Q2	Q3	Q4
Liquidity Parameters							
at least (>=) X trades during the period	480	240	240	120	120	120	120
at least (>=) X days traded during the period	240	120	120	60	60	60	60
average daily turnover at least (>=) €	100,000	100,000	100,000	100,000	100,000	100,000	100,000
Statistics							
tot # of bonds for the period	4,268	3,832	3,933	3,700	3,635	3,707	3,723
tot turnover for the period Bn €	22,257,339,591,101	10,678,715,638,258	11,578,623,952,843	5,156,566,998,076	5,522,148,640,181	5,991,930,145,930	5,586,693,806,913
total number of trades of the period for all bonds (in thousands)	3,686	1,911	1,774	977	935	914	860
Results							
# of bonds of this category	344	359	367	394	353	371	387
which represents x% of the total # of bonds in the period	8.06%	9.37%	9.33%	10.65%	9.71%	10.01%	10.39%
total turnover over the period for this category (in bn)	18,510	9,498	10,322	4,762	5,047	5,463	4,924
which represents Bn € of the total turnover of the period for all bonds	83.17%	88.95%	89.15%	92.36%	91.40%	91.17%	88.14%
# of trades of this category (in thousands)	3,076	1,671	1,533	869	835	810	744
which represents x% of the total number of trades of the period for all bonds	83.45%	87.41%	86.40%	88.95%	89.36%	88.58%	86.48%
# of bonds issued in the period	762	326	436	194	132	210	226
# of bonds expired in the period	17	10	7	3	7	3	4
# of bonds issued or expired in the period	772	335	441	197	139	213	230
# of bonds of this category using "refined" thresholds	388	381	390	418	359	384	398

Table 3.3 – Analysis results - scenario 3 – sovereign bonds only

SCENARIO #3							
SOVEREIGN DEBT ONLY	1Y	H1	H2	Q1	Q2	Q3	Q4
Liquidity Parameters							
at least (>=) X trades during the period	240	120	120	60	60	60	60
at least (>=) X days traded during the period	240	120	120	60	60	60	60
average daily turnover at least (>=) €	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Statistics							
tot # of bonds for the period	4,268	3,832	3,933	3,700	3,635	3,707	3,723
tot turnover for the period Bn €	22,257,339,591,101	10,678,715,638,258	11,578,623,952,843	5,156,566,998,076	5,522,148,640,181	5,991,930,145,930	5,586,693,806,913
total number of trades of the period for all bonds (in thousands)	3,686	1,911	1,774	977	935	914	860
Results							
# of bonds of this category	318	330	336	355	318	338	351
which represents x% of the total # of bonds in the period	7.45%	8.61%	8.54%	9.59%	8.75%	9.12%	9.43%
total turnover over the period for this category (in bn)	18,506	9,497	10,320	4,761	5,046	5,462	4,923
which represents Bn € of the total turnover of the period for all bonds	83.15%	88.93%	89.13%	92.33%	91.38%	91.15%	88.12%
# of trades of this category (in thousands)	3,012	1,638	1,493	847	816	789	723
which represents x% of the total number of trades of the period for all bonds	81.71%	85.69%	84.16%	86.71%	87.29%	86.26%	83.99%
# of bonds issued in the period	762	326	436	194	132	210	226
# of bonds expired in the period	17	10	7	3	7	3	4
# of bonds issued or expired in the period	772	335	441	197	139	213	230
# of bonds of this category using "refined" thresholds	355	349	354	375	324	348	360

Table 3.4 – Analysis results - scenario 4 – sovereign bonds only

SCENARIO #4							
SOVEREIGN DEBT ONLY	1Y	H1	H2	Q1	Q2	Q3	Q4
Liquidity Parameters							
at least (>=) X trades during the period	240	120	120	60	60	60	60
at least (>=) X days traded during the period	120	60	60	30	30	30	30
average daily turnover at least (>=) €	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Statistics							
tot # of bonds for the period	4,268	3,832	3,933	3,700	3,635	3,707	3,723
tot turnover for the period Bn €	22,257,339,591,101	10,678,715,638,258	11,578,623,952,843	5,156,566,998,076	5,522,148,640,181	5,991,930,145,930	5,586,693,806,913
total number of trades of the period for all bonds (in thousands)	3,686	1,911	1,774	977	935	914	860
Results							
# of bonds of this category	579	588	621	575	565	601	612
which represents x% of the total # of bonds in the period	13.57%	15.34%	15.79%	15.54%	15.54%	16.21%	16.44%
total turnover over the period for this category (in bn)	21,055	10,371	11,218	4,970	5,443	5,881	5,410
which represents Bn € of the total turnover of the period for all bonds	94.60%	97.12%	96.89%	96.39%	98.56%	98.15%	96.84%
# of trades of this category (in thousands)	3,343	1,771	1,610	897	863	841	785
which represents x% of the total number of trades of the period for all bonds	90.69%	92.64%	90.75%	91.79%	92.35%	91.96%	91.29%
# of bonds issued in the period	762	326	436	194	132	210	226
# of bonds expired in the period	17	10	7	3	7	3	4
# of bonds issued or expired in the period	772	335	441	197	139	213	230
# of bonds of this category using "refined" thresholds	626	606	642	592	573	618	623

Table 3.5 – Analysis results - scenario 5 – sovereign bonds only

SCENARIO #5							
SOVEREIGN DEBT ONLY	1Y	H1	H2	Q1	Q2	Q3	Q4
Liquidity Parameters							
at least (>=) X trades during the period	240	120	120	60	60	60	60
at least (>=) X days traded during the period	120	60	60	30	30	30	30
average daily turnover at least (>=) €	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000	10,000,000
Statistics							
tot # of bonds for the period	4,268	3,832	3,933	3,700	3,635	3,707	3,723
tot turnover for the period Bn €	22,257,339,591,101	10,678,715,638,258	11,578,623,952,843	5,156,566,998,076	5,522,148,640,181	5,991,930,145,930	5,586,693,806,913
total number of trades of the period for all bonds (in thousands)	3,686	1,911	1,774	977	935	914	860
Results							
# of bonds of this category	352	352	349	330	351	339	338
which represents x% of the total # of bonds in the period	8.25%	9.19%	8.87%	8.92%	9.66%	9.14%	9.08%
total turnover over the period for this category (in bn)	20,794	10,242	11,070	4,900	5,386	5,812	5,335
which represents Bn € of the total turnover of the period for all bonds	93.43%	95.91%	95.61%	95.03%	97.53%	97.00%	95.50%
# of trades of this category (in thousands)	3,049	1,608	1,439	795	789	755	691
which represents x% of the total number of trades of the period for all bonds	82.73%	84.13%	81.10%	81.36%	84.46%	82.59%	80.36%
# of bonds issued in the period	762	326	436	194	132	210	226
# of bonds expired in the period	17	10	7	3	7	3	4
# of bonds issued or expired in the period	772	335	441	197	139	213	230
# of bonds of this category using "refined" thresholds	382	364	362	345	355	345	346

Table 3.6 – Analysis results - scenario 6 – sovereign bonds only

SCENARIO #6							
SOVEREIGN DEBT ONLY							
	1Y	H1	H2	Q1	Q2	Q3	Q4
Liquidity Parameters							
at least (>=) X trades during the period	2400	1200	1200	600	600	600	600
at least (>=) X days traded during the period	120	60	60	30	30	30	30
average daily turnover at least (>=) €	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000	1,000,000
Statistics							
tot # of bonds for the period	4,268	3,832	3,933	3,700	3,635	3,707	3,723
tot turnover for the period Bn €	22,257,339,591,101	10,678,715,638,258	11,578,623,952,843	5,156,566,998,076	5,522,148,640,181	5,991,930,145,930	5,586,693,806,913
total number of trades of the period for all bonds (in thousands)	3,686	1,911	1,774	977	935	914	860
Results							
# of bonds of this category	254	259	252	259	245	252	248
which represents x% of the total # of bonds in the period	5.95%	6.76%	6.41%	7.00%	6.74%	6.80%	6.66%
total turnover over the period for this category (in bn)	19,230	9,464	9,622	4,626	4,776	5,008	4,559
which represents Bn € of the total turnover of the period for all bonds	86.40%	88.62%	83.10%	89.70%	86.48%	83.58%	81.60%
# of trades of this category (in thousands)	3,024	1,611	1,431	818	786	754	692
which represents x% of the total number of trades of the period for all bonds	82.06%	84.28%	80.64%	83.79%	84.09%	82.51%	80.47%
# of bonds issued in the period	762	326	436	194	132	210	226
# of bonds expired in the period	17	10	7	3	7	3	4
# of bonds issued or expired in the period	772	335	441	197	139	213	230
# of bonds of this category using "refined" thresholds	274	267	263	269	250	257	252

Table 4 – Refined thresholds methodology

Methodology description	The ‘number of trades’ and ‘number of traded days’ thresholds are rebased using a simple proportion such as the following:
Formula	480 trades : 250 days = X trades : 50 days
Description of the parameters	<p>480 is the “number of trades” threshold for the 1Y period to be met as to be qualified as liquid bonds</p> <p>250 is the number of trading days over 1Y period</p> <p>50 is the effective number of trading days available for the bond since it was issued close to the end of the period</p> <p>X=96 is the “number of trades” threshold for the specific bond to be met as to be qualified as liquid</p>

Annex 3.6.3. COFIA versus IBIA

	IBIA	COFIA
STEP#1: Definition of the classes for calculating the liquidity thresholds	In the case of 1 class the same set of liquidity thresholds will apply to all bonds without distinguishing across different types of bonds In the case of more than 1 class different sets of liquidity thresholds will apply to different types of bonds	In the case of 1 class the same set of liquidity thresholds will apply to all bonds without distinguishing across different types of bonds In the case of more than 1 class different sets of liquidity thresholds will apply to different types of bonds
STEP #2: Determination of the liquidity thresholds	A set of liquidity thresholds is defined for each of the classes identified in the first step. Each set of liquidity thresholds includes a threshold for each of the parameters considered to assess liquidity. E.g. If ADT, Number of transactions and Number of days traded are considered, a set of thresholds will be as follows: ADT threshold=X Number of transactions threshold=Y Number of days traded threshold=Z	A set of liquidity thresholds is defined for each of the classes identified in the first step. Each set of liquidity thresholds includes a threshold for each of the parameters considered to assess liquidity. E.g. If ADT, Number of transactions and Number of days traded are considered, a set of thresholds will be as follows: ADT threshold=X Number of transactions threshold=Y Number of days traded threshold=Z
STEP #3: Segmentation into liquidity sub-categories	No segmentation	<p>1) Segmentation is based on qualitative criteria (e.g. issuance size, time to maturity, currency, bond type, etc.) not on the 3 liquidity thresholds set in the example above (i.e. X, T, Z)</p> <p>2) Each class is then validated on the basis of the above liquidity thresholds. How? each bond is flagged as liquid/illiquid on the basis of the above thresholds, then the class is validated to determine whether it is able to correctly screen between liquid and illiquid bonds. Bonds in a liquid class will be liquid but a few illiquid bonds will likely be in that class (and vice versa). The aim is to minimise the error rate to the extent possible.</p>
STEP #4: Initial assessment of the liquidity of the instruments/ class	INITIAL LIQUIDITY ASSESSMENT: Each instrument is deemed to be liquid/illiquid on the basis of its liquidity thresholds, e.g.: ADT /trades /days traded values.	INITIAL LIQUIDITY ASSESSMENT: Each class will be deemed to be either liquid or illiquid
STEP#5: Periodic assessment of the liquidity of the instruments/ class	PERIODIC LIQUIDITY ASSESSMENT: On a periodic basis the instrument specific liquidity characteristics, e.g. ADT /trades /days traded values, must be recalculated for each instrument on the basis of data covering a period to be decided (it can be 1yr /6m /3m) and then the bond is re-qualified as liquid/illiquid NEW INSTRUMENTS: For new instruments, estimates must be made regarding whether they meet the liquidity thresholds and so are liquid or not (as is the case under MFID I for newly issued shares and only after a pre-determined time period are the parameters calculated on the basis of real values)	PERIODIC LIQUIDITY ASSESSMENT: On the basis of the approach used to screen and assess the liquidity of the class, a periodic re-assessment of the liquidity of the class might be envisaged. This might occur as frequently as the re-calibration of the liquidity thresholds (step #5) or more frequently. Furthermore, this reassessment might imply the re-definition of the sub-categories (step#3) NEW INSTRUMENTS: New instruments will be automatically classified as either liquid or illiquid on the basis of qualitative criteria
STEP #6: periodic review of the liquidity thresholds	LIQUIDITY THRESHOLDS RECALIBRATION: Periodically, but less frequently than the assessment of the liquidity of each instrument, liquidity thresholds will be recalibrated. In other words either X, Y and Z values will be maintained or will be changed	LIQUIDITY THRESHOLDS RECALIBRATION: Periodically, either with the same frequency or less frequent than the assessment of the liquidity of the class, liquidity thresholds will be recalibrated. In other words either X, Y and Z values will be maintained or will be changed. The recalibration of the thresholds always implies the re-assessment of the segmentation into liquidity sub-categories, which as a result, might also change.

3.7. Pre-trade transparency requirements for non-equity instruments

Background/Mandate/Empowerment

1. In order to strengthen transparency and improve the functioning of the EU markets for financial instruments MiFIR establishes a new transparency regime which extends to a wide range of non-equity financial instruments, namely bonds, structured finance products, derivatives and emission allowances.
2. While the same pre-trade transparency requirements should apply to different types of venues⁶⁸, MiFIR calls for the calibration of those requirements for different types of instruments, including bonds, structured finance products, emission allowances and derivatives which are traded on a trading venue⁶⁹. Similarly, transparency requirements should be calibrated for different types of trading systems, including order-book and quote-driven systems as well as hybrid and voice trading systems, and take account of issuance and transaction size.
3. MiFIR empowers ESMA to develop draft RTS specifying the precise content of pre-trade transparency information to be made public and the detailed conditions under which waivers from pre-trade transparency can be granted by NCAs for each class of financial instrument.

Article 9(5), MiFIR

ESMA shall develop draft regulatory technical standards to specify the following:

[...]

- (b) the range of bid and offer prices or quotes and the depth of trading interests at those prices, or indicative pre-trade bid and offer prices which are close to the price of the trading interest, to be made public for each class of financial instrument concerned in accordance with Articles 8(1) and (4), taking into account the necessary calibration for different types of trading systems as referred to in Article 8(2);*

[...]

- (d) the size specific to the financial instrument referred to in paragraph 1(b) and the definition of request-for-quote and voice trading systems for which pre-trade disclosure may be waived under paragraph 1;*

[...]

4. Article 9(5)(b) of MiFIR empowers ESMA to develop draft regulatory standards on the content of pre-trade information to be made public by trading venues.

⁶⁸Cf. Recital (16) MiFIR

⁶⁹Cf. Recitals (16) and (26) MiFIR

5. The definition of the scope in terms of asset classes, discussed in section 3.5 – Introduction to the non-equity and scope of non-equity financial instruments, is relevant for the pre-trade and the post-trade transparency regime for non-equity financial instruments.
6. Article 8(2) of MiFIR requires that the precise content of the transparency requirements is calibrated by the trading system or protocol used by the trading venue in order to bring together multiple third-party buying and selling trading interest in a financial instrument.

Analysis

7. MiFID II provides for three types of trading venues (regulated markets, MTFs and OTFs) for non-equity instruments and within each of these categories of trading venues there may be different types of trading systems e.g. quote driven, continuous auction order book trading, etc. As is the approach discussed under the equity section for pre-trade transparency, ESMA is of the opinion that the type of trading system should be the starting point for determining the appropriate level of pre-trade transparency. In order to ensure uniform applicable conditions between trading venues, the same pre-trade transparency requirements, defined at trading system level, would then apply equally to the regulated markets, MTFs and OTFs to the extent that the trading systems can be operated in line with the definition of the trading venues under MiFIR. This follows the approach in Table 1 of Annex II of Implementing Regulation (EC) No 1287/2006 that describes the trading systems used for shares admitted to trading on a regulated market.
8. ESMA notes that in non-equities trading - which is often characterised by low and episodic trading activity - a variety of trading systems or protocols are commonly used and therefore also need to be defined.
9. In calibrating the requirements for different trading systems, the definitions of request-for-quote systems and voice trading systems, as required under Article 9(5)(d) of MiFIR are key in determining the minimum amount of pre-trade information they must offer. The definition of these systems is also relevant for determining when pre-trade transparency obligations can be waived in accordance with Article 9(1)(b) of MiFIR for transactions above a size specific to the instrument. Article 9(1)(b) states that NCAs can authorise waivers to pre-trade transparency requirements for actionable indications of interest in request-for-quote and voice trading systems that are above a size specific to the instrument.

Proposal

10. In drafting a definition of request-for-quotes systems ESMA has benefitted from discussions with market participants and understands that, request-for-quote systems encompass a variety of trading protocols which are prevalent in markets characterised by insufficient trading interest to support continuous quotation. The defining feature of these systems is the provision of liquidity from some market participants (usually large investment firms specialised in making markets) to others only on request. The requesting participant is the only counterparty to which the quote is disclosed, and the only counterparty entitled to trade against it.
11. ESMA is considering the following definition of a request-for-quote system:

“A trading system where a quote or quotes are only provided to a member or participant in response to a request submitted by one or more other members or participants. The requesting member or participant may conclude a transaction by accepting the quote or quotes provided to it on request.”

12. ESMA is of the opinion that this definition of ‘request-for-quote’ is sufficiently broad to capture a variety of trading protocols sharing the same core characteristics. The definition would, for example, include request-for-stream systems whereby market makers provide continuous streaming of firm quotes to buy and sell financial instruments for a predefined period of time based upon the client’s request.

Q119: Do you agree with the description of request-for-quote system? If not, how would you describe a request-for-quote system? Please give reasons to support your answer.

Q120: Do you agree with the inclusion of request-for-stream systems in the definition of request-for-quote system? Please give reasons to support your answer.

Q121: Do you think that – apart from request-for-stream systems – other functionalities should be included in the definition of request-for-quote system? If yes, please provide a description of this functionality and give reasons to support your answer.

13. In ESMA’s view, a voice trading system operated by a trading venue is a system where members or participants agree to conclude transactions on the basis of voice negotiation. Apart from the use of designated telephone lines, voice trading systems may include venues based on ‘open outcry’ trading floors.

14. ESMA is considering the following definition of a voice trading system:

“A trading system where transactions between members are arranged through voice negotiation”.

Q122: Do you agree with the description of voice trading system? If not, how would you describe a voice trading system?

15. Table 1 of Annex II of MiFID Implementing Regulation defines a number of trading systems for the purpose of the current transparency regime for shares. The Annex refers to continuous auction order book trading systems, quote-driven trading systems, periodic auction trading systems and trading systems not covered by the first three mentioned.
16. Using the Annex under MiFID I as a basis, ESMA is considering developing this table further for use in the non-equities space, as set out below.

Type of trading system	Description of system	Information to be made public
Continuous auction order book trading system	A system that by means of an order book and a trading algorithm operated without human intervention matches sell orders with matching buy orders on the best available price on a	The aggregate number of orders and the volumes they represent at each price level, for at least the five best bid and offer price levels.

	continuous basis.	
Quote-driven trading system	A system where transactions are concluded on the basis of firm quotes that are continuously made available to participants, which requires the market makers to maintain quotes in a size that balances the needs of members and participants to deal in a commercial size and the risk to which the market maker exposes itself.	The best bid and offer by price of each market maker in that instrument, together with the volumes attaching to those prices.
Periodic auction trading system	A system that matches orders on the basis of a periodic auction and a trading algorithm operated without human intervention.	The price at which the auction trading system would best satisfy its trading algorithm and the volume that would potentially be executable at that price.
Request-for-quote system	A trading system where a quote or quotes are only provided to a member or participant in response to a request submitted by one or more other members or participants. The requesting member may conclude a transaction by accepting the quote or quotes provided to it on request.	The bids and offers and attaching volumes submitted by each responding entity.
Voice trading system	A trading system where transactions between members are arranged through voice negotiation.	The bids and offers and attaching volumes from any member or participant which, if accepted, would lead to a transaction in the system.
Trading system not covered by first five rows	A hybrid system falling into two or more of the first five rows or a system where the price determination process is	Adequate information as to the level of orders or quotes and of trading interest; in particular, the five best bid and offer price levels and/or two-way quotes of

	of a different nature than that applicable to the types of system covered by the first five rows.	each market maker in the instrument, if the characteristics of the price discovery mechanism so permit.
--	---	---

Table 16: Trading systems for the purpose of the transparency regime for non-equity instruments

17. The first three rows and the last row of the table above are derived from Table I of Annex II of the MiFID Implementing Regulation and ESMA proposes to add to this table two additional rows for ‘request-for-quote’ and ‘voice trading system’. ESMA is of the preliminary opinion that the existing requirements for continuous and periodic auction systems and for quote driven systems remain valid and applicable to non-equity financial instruments.
18. Given the complexity of the non-equity markets and their possible evolution in the years to come, ESMA is minded to maintain the flexibility offered by the Table above in the form of allowing hybrid trading systems or trading systems where the price determination process is of a different nature than that applicable to the other systems to operate under the new transparency regime provided that adequate pre-trade information is disclosed to the public.
19. Where, according to the above table, bids and offers are to be made public, this obligation should extend to actionable indication of interests which are defined in article 2(1)(33) of MiFIR as a message from one member or participant to another within a trading system in relation to available trading interest that contains all necessary information to agree on a trade. ESMA considers that an actionable indication of interest should be treated in the same way as a bid or offer or a firm quote.

Voice trading systems

20. MiFIR is clear in applying pre-trade transparency requirements to voice trading systems. The requirement to make public bids and offers implies that the operator of a voice trading system will need to make use of electronic means in order to comply with the pre-trade transparency requirement (i.e. to broadcast those bids and offers to the wider public and not only to the members or participants of the trading platform). However, use of electronic means does not imply that a hybrid system (as described in the above table) is operated by a trading venue: the electronic means are used only to fulfil the pre-trade transparency requirements to the public.
21. With regard to the way the content of the pre-trade transparency requirements for voice trading systems should be made public ESMA is considering the following:
 - i. the bids and offers in a specific instrument from any member or participant should be made public via an electronic publication channel;
 - ii. the pre-trade transparency data should be made public via at least one electronic publication channel;
 - iii. a publication channel could be the trading venue itself or a third party system, including data vendors, chosen by the operator of the trading venue; and,

- iv. the pre-trade information being made public is accessible by electronic means in a machine readable way.

Q123: Do you agree with the proposed table setting out different types of trading systems for non-equity instruments?

Q124: Do you think that the information to be made public for each type of trading system provides adequate transparency for each trading system?

Q125: Besides the trading systems mentioned above, are there additional trading models that need to be considered for pre-trade transparency requirements in the non-equity market space?

Q126: If you think that additional trading systems should be considered, what information do you think should be made public for each additional type of trading model?

Specifically in the context of pre-trade transparency for voice trading systems:

Q127: Based on your experience, what are the different types of voice trading systems in the market currently? What specific characteristics do these systems have?

Q128: How do these voice trading systems currently make information public or known to interested parties at the pre-trade stage?

Q129: Do you agree with ESMA's approach in relation to the content, method and timing of pre-trade information being made available to the wider public?

22. Where a waiver is granted in accordance with Article 9(1)(b) of MiFIR (waiver for actionable indications of interest in request-for-quote and voice trading systems that are above a size specific to the instrument), Article 8(4) of MiFIR requires the operator to make public at least indicative pre-trade bid and offer prices which are close to the price of the trading interests advertised through their systems.

23. ESMA is of the view that these indicative pre-trade bid and offer prices which are close to the price of the trading interests should be calculated and displayed by the operator of the trading venue in a transparent fashion. This means that the composition and calculation of these indicative prices should be based on a clear methodology that is made transparent to the public beforehand and laid down in the rules of the trading venue. The calculation of the indicative prices should result in a price that is close to the price of the trading interests advertised through the systems of the operator of the trading venue.

24. An example of indicative pre-trade bid and offer prices which are close to the price of the trading interests could be an indicator reflecting the average of volume weighted bid and offer prices.

Q130: Do you agree with the above mentioned approach with regard to indicative pre-trade bid and offer prices which are close to the price of the trading interests? Please give reasons to support your answer

Q131: If you do not agree with the approach described above please provide an alternative

Large in scale and order management facility waiver

Article 9(5)(c), MiFIR:

ESMA shall develop draft regulatory technical standards to specify the following:

[...]

- (c) the size of orders that are large in scale and the type and the minimum size of orders held in an order management facility pending disclosure for which pre-trade disclosure may be waived under paragraph 1 for each class of financial instrument concerned;*

[...]

25. The 'size of orders which are large in scale' and the associated waivers are discussed in section 3.9 of this Discussion Paper.
26. The size of orders held in an order management facility pending disclosure is being discussed for equity and equity-like instruments as well. Reference is made in the section on order management facilities waiver of this Discussion Paper.

3.8. Post-trade transparency requirements for non-equity instruments

Details to be made public

Background/Mandate/Empowerment

1. MiFIR delegates power to the Commission to adopt a number of measures establishing the precise content of the post-trade transparency regime trading venues and investment firms will be subject to in respect of bonds, structured finance products, emission allowances and derivatives traded on a trading venue. ESMA is required to develop RTS for the implementation of the new post-trade transparency regime. These measures include the criteria and conditions for the deferred publication of transactions and the content of the information to be made public, including identifiers for different types of transactions.
2. Article 10(1) of MiFIR requires that market operators and investment firms operating a trading venue shall make public the price, volume and time of transactions executed in bonds, structured finance products, emission allowances and derivatives which are traded on a trading venue.
3. Article 21(1) of MiFIR extends the post-trade transparency requirements to investment firms, including systematic internalisers, which either on own account or on behalf of clients, conclude transactions in non-equity financial instruments under the scope of the transparency regime. This information shall be made public once through a single APA.
4. According to Article 11(4)(a) of MiFIR, ESMA is required to draft RTS specifying the details of transactions that investment firms, including systematic internalisers, market operators and investment firms operating a trading venue shall make available for each class of financial instruments, including identifiers for different types of transactions⁷⁰.

Article 11(4)(a), MiFIR

[...]

4. ESMA shall develop draft regulatory technical standards to specify the following in such a way as to enable the publication of information required under Article 64 of Directive .../.../EU:

(a) the details of transactions that investment firms, including systematic internalisers, and market operators and investment firms operating a trading venue shall make available to the public for each class of financial instrument concerned in accordance with Article 10(1), including identifiers for the different types of transactions published under Article 10(1) and Article 21(1), distinguishing between those determined by factors linked primarily to the valuation of the financial instruments and those determined by other factors

⁷⁰There is a similar empowerment in Article 21(5)(a) for the identifiers for the different types of transactions published under that article that deals with post-trade disclosure by investment firms, including systematic internalisers.

5. The current regime, which mandates the publication of post-trade information for shares, requires the following details to be made public: the trading day and time, the instrument identification, the unit price and price notation, the quantity and the venue identification.
6. ESMA has evaluated whether additional details should be made public for transactions in non-equity financial instruments and has taken into account the following considerations.
7. First, most organised platforms (RMs and MTFs) make post-trade information public on the basis of national legislation, regulation or market rules and consequently, there is currently a lack of harmonisation.
8. Beyond the European framework, there are a few examples of post-trade reporting having been implemented in other jurisdictions. In the US, FINRA developed the Trade Reporting and Compliance Engine (TRACE), a vehicle that facilitates the mandatory reporting of OTC secondary market transactions in eligible fixed income securities. All broker/dealers who are FINRA member firms have an obligation to report transactions in corporate bonds to TRACE under a SEC approved set of rules.
9. The issue of what information should be made public for transactions of non-equity financial instruments was addressed by CESR in its 2010 technical advice which provided some recommendations on the information that should be made public for bonds, structured finance products and credit default swaps.
10. Inter alia CESR recommended that the rating of a financial instrument should be made public. However, the debate on the role played by credit rating agencies in the run-up to the financial crisis has, in the meantime, oriented the EU legislation towards reducing reliance on external ratings for investment decisions⁷¹. Therefore, ESMA is of the opinion that the rating of an instrument should not be included in the public information.
11. ESMA has also considered whether the list of fields used for the purpose of transaction reporting according to Article 25 of the current MiFID regime form a useful basis for defining information to be made public, although ESMA is aware that those details on transactions are reported for supervision purposes (which are different from the objectives of a transparency regime).

Proposal

12. ESMA has come to the view that the set of details to be made public should be the same as for shares under the new MiFIR transparency regime, with one addition: information on the quantity notation. ESMA also considers that emission allowances should be identified on the basis of the type of scheme under which they are exchanged and the relevant trading period as defined in the schemes.

⁷¹In line with G20 commitments, new rules on Credit Rating Agencies (CRAs) were published in the Official Journal of the European Union on 31 May 2013 and entered into force on 20 June 2013. In accordance with the new rules, reliance on external ratings will be reduced, requiring financial institutions to strengthen their own credit risk assessment and not to rely solely and mechanically on external credit ratings. European Supervisory Authorities should also avoid references to external credit ratings and are required to review their rules and guidelines and where appropriate, remove credit ratings where they have the potential to create mechanistic effects. The regulatory package also contains a Directive introducing the principle to reduce reliance on external ratings in sectoral legislation for collective investment funds (UCITS), alternative investment fund managers (AIFMD) and institutions for retirement provision (IORPD).

13. In summary, ESMA suggests publishing the details listed in the table below for transactions carried in non-equity financial instruments, which is consistent with the information to be made available to the public through an APA in accordance with Article 64(2) of MiFID II.

List of details of public information	
Details	All financial instruments
Trading day	
Trading time	
The identifier of the financial instrument	
The price at which the transaction was concluded	
Venue identification or: <ul style="list-style-type: none"> i. if the transaction was executed via a systematic internaliser the code 'SI' ii. otherwise the code 'OTC' 	
Price notation	
Quantity notation	
Quantity	
Details	Emission Allowances
Reference period	The period specified in the Directive 2003/87/CE <i>e.g.</i> 2005-2007; 2008-2012; 2013-2018 etc.
Type	EUA CER ERU ⁷²

Table 17: List of details of public information

14. The content of each detail is described in Table 1 of Annex 1 of the Regulation (EC) No. 1287/2006, which is in the course of being updated in order to be compliant with the new MiFIR provisions on transaction reporting [see Annex 8.1.1.].
15. As noted above in section 3.2 on post-trade transparency for shares and equity-like instruments, one of the objectives of post-trade information is to help investors identify liquidity pools in order to inform their investment decisions. Under MiFID I, the identification of the systematic internaliser is left to the investment firms' discretion. According to Article 27 of Regulation (EC) No 1287/2006, by way of exception, a systematic internaliser is entitled to use the acronym 'SI' instead of the venue identification. However, the systematic internaliser may exercise that right provided it makes available to the public aggregate quarterly data, no later than one month after the end of each calendar year, with respect to the transactions executed in that capacity. ESMA notes there is an argument for delaying publication of the systematic internaliser's identity in order not to disclose a systematic internaliser's risk exposure, and that consequently the current regime for shares should be extended to non-equity instruments.

⁷² The types of schemes with regard to emission allowances are defined in the section of the Discussion Paper on the scope of transparency for non-equity instruments (see Section 3.5 p – Introduction to the non-equity section and scope of non-equity financial instruments).

16. However, ESMA considers that it is important to provide investors with an overview of liquidity pools in relation to an instrument. Consequently, there is an argument for disclosing the systematic internaliser's identity in the post-trade information. Furthermore, given that for pre-trade transparency purposes, Article 18 of MiFIR requires systematic internalisers, under certain conditions, to publish their quotes for non-equity instruments for which there is a liquid market, it would be consistent to align pre-trade and post-trade transparency requirements and thus to require the systematic internaliser to publish its identification.

Q132: Do you agree with the proposed content of post-trade public information? If not, please provide arguments and suggestions for an alternative.

Q133: Do you think that the current post-trade regime for shares on the systematic internaliser's identity should be extended to non-equity instruments or that the systematic internaliser's identity is relevant information which should be published without exception?

Q134: Is there any other information that would be relevant to the market for the above mentioned asset classes?

17. Article 11(4)(a) and Article 21(5)(a) also require ESMA to draft RTS specifying the identifiers for different types of transactions including those determined by factors other than the valuation of the instruments.
18. The current regime of transparency for shares requires regulated markets, MTFs and investment firms to publish additional information in the form of flags with regard to transactions determined by factors other than the current valuation of the share, negotiated trades and amendments to previously disclosed information. The use of identifiers aims at improving the efficiency of the price formation process, supporting firms achieving best execution for their clients and allowing clients to monitor whether they are receiving best execution.
19. The issue of identifiers was addressed in the past by CESR in its Technical Advice to the Commission on equity post-trade transparency standards (CESR/10-882). The Technical Advice, which benefitted from discussions with the CESR industry working group, recommended the introduction of a number of new identifiers that could provide useful additional information to market participants. Those identifiers refer to benchmark trades, agency cross trades, technical trades for non-addressable liquidity and dark trades.
20. ESMA is of the opinion that the identifiers recommended in the CESR Technical Advice are also valid with regard to transactions executed on non-equity financial instruments. In particular, ESMA is in favour of including a set of flags identifying transactions carried out under each of the permissible waivers from pre-trade transparency, with the aim of improving the content of public information and assisting NCAs in monitoring the extent to which waivers from pre-trade transparency are used. Such an approach would also allow further harmonisation of transparency regimes between equity (and equity-like instruments) and non-equity financial instruments.
21. ESMA is also considering whether transactions ex/cum coupon should be flagged with an identifier similar to the 'ex/cum dividend flag' recommended in the Technical Advice for shares.
22. ESMA proposes using the flags described in the table below.

Identifier	Name of trade flag	Venue/Publication arrangement	Definition
'B'	Benchmark trade flag	RM, MTF, OTF, APA	All kinds of volume weighted average price transactions and all other trades where the price is calculated over multiple time instances according to a given benchmark
'X'	Agency cross trade flag	RM, MTF, OTF, APA	Trades where an investment firm has brought together two clients' orders with the purchase and the sale conducted as one transaction and involving the same volume and price
'G'	Give-up/give-in trade flag	RM, MTF, OTF, APA	All transactions where an investment firm passes a client trade to, or receives a client trade from, another investment firm for the process of post-trade processing
'T'	Technical trade flag	RM, MTF, OTF, APA	Category covering trades which represent non-addressable liquidity or trades where the exchange of financial instrument is determined by factors other than the current market valuation of the instrument. Non-exhaustive examples of such trades may include OTC hedges of a derivative, inter-fund transfers, non-equity hedge trades related to the creation/redemption of ETFs and Exchange for Physical trades
'L'	Large in scale trade flag		Transactions executed under the pre-trade large in scale waiver. Not necessarily both sides of the transactions will be large in scale
'I'	Illiquid instrument trade flag		Transactions executed under the waiver for instruments for which there is not a liquid market
'S'	Above Specific Size trade flag		Transactions executed under the waiver for actionable indications of interest in RFQ and voice trading systems that are above a size specific to the financial instrument
'C'	Cancellation flag	RM, MTF, OTF, APA	Transaction cancelled
'A'	Amendment flag	RM, MTF, OTF, APA	Transaction amended

Table 18: Flags proposal

23. A trade may need to be, and should be, marked with more than one flag where it meets more than one of the above criteria, e.g. a Volume Weighted Average Price (VWAP) cross should be flagged as 'BX' etc.
24. In addition, ESMA is of the opinion that it may also be useful to flag trades which have benefitted from the use of deferrals as well as waivers e.g. a flag for use of the large in scale deferral, size specific

to the instrument deferral etc. This would make it more obvious that the trade benefitted from deferred publication and easier for investors to identify.

25. With respect to give-up/give in trades, ESMA is considering whether the inclusion of these trades in post-trade data provides the market with additional and necessary information or risks giving an inflated view of the true trading activity. On the other hand, ESMA is of the view that such trades must be captured and identified as such and therefore, the key issue is whether or not they should be published in post-trade reports.

Q135: Do you agree with the proposed table of identifiers for transactions executed on non-equity instruments? Please provide reasons for your answer.

Q136: Do you support the use of flags to identify trades which have benefitted from the use of deferrals? Should separate flags be used for each type of deferral (e.g. large in scale deferral, size specific to the instrument deferral)? Please provide reasons for your answer.

Q137: Do you think a flag related to coupon payments (ex/cum) should be introduced? If yes, please describe the cases where such flags would be warranted and which information should be captured.

Q138: Do you think that give-up/give-in trades (identified with a flag) should be included in post-trade reports or not made public? Please provide reasons for your answers.

Post-trade disclosure by investment firms

Background/Mandate/Empowerment

26. The MiFIR post-trade transparency regime will also apply to investment firms, including systematic internalisers, when concluding transactions in non-equity instruments within the scope of the transparency regime.
27. Paragraph (b) of Article 21(5) require ESMA to draft RTS as follows.

Article 21(5), MiFIR

5. ESMA shall develop draft regulatory technical standards in such a way as to enable the publication of information required under Article 64 of Directive .../.../EU to specify the following:

[...]

(b) the application of the obligation under paragraph 1 to transactions involving the use of those financial instruments for collateral, lending or other purposes where the exchange of financial instruments is determined by factors other than the current market valuation of the financial instrument;

Analysis

28. Pursuant to the empowerment in Article 21(5)(b) of MiFIR, ESMA is considering whether or not the post-trade transparency regime should apply to those securities financing transactions where there is a legal transfer of ownership of the financial instrument but the transaction is carried out for the purpose of lending or borrowing liquidity.

Proposal

29. Under the current transparency regime for shares, such transactions are not subject to the publication requirements pursuant to Article 5 of the Implementing Regulation (EC) No. 1287/2006. ESMA is of the view that this exemption should apply also to such non-equity instruments.

Q139: Do you agree that securities financing transactions should be exempted from the post-trade transparency regime?

Timing

Background/Mandate/Empowerment

30. Article 11(4)(b) of MiFIR requires ESMA to draft regulatory technical standards to specify the technical meanings of ‘close to real time’.

Article 11(4), MiFIR

4. ESMA shall develop draft regulatory technical standards to specify the following in such a way as to enable the publication of information required under Article 64 of Directive .../.../EU:

[...]

(b) the time limit that would be deemed in compliance with the obligation to publish as close to real time as possible including when trades are executed outside ordinary trading hours.

31. This requirement has been included to ensure that elements currently specified in the Implementing Regulation (EC) No. 1287/2006 for shares could be captured under MiFIR. In particular, under MiFID I, equity post-trade information relating to transactions taking place on trading venues and within normal trading hours must be made available as close to real time as possible⁷³. MiFIR further clarifies that post-trade information shall be made public as close to real-time as technically possible.
32. MiFID I requires that post-trade information for shares must be available within three minutes following the transaction, for exceptional cases where the systems available do not allow for publication in a shorter period of time.
33. In the section 3.2 on the post-trade transparency regime for equity and equity-like instruments recommends the maximum permissible delay should be shortened to one minute for equity and equity-like instruments after the relevant transaction, in order to improve the quality of post-trade information and the overall market transparency.

Analysis

34. The new MiFIR regime aims at harmonising the transparency requirements for all financial instruments. For this reason ESMA wishes to establish whether the same maximum permissible delay under the specification of “as close to real time” should apply to non-equity financial instruments as well

⁷³Article 29 (2) MiFID Implementing Regulation 1287/2006.

as to equity and equity-like instruments. In this regard, ESMA notes that a significant proportion of non-equity transactions are carried out on trading systems (e.g. RFQ, voice and hybrid systems) which rely on manual functionalities and processes and which could affect the time required to publish information. On the other hand, applying different requirements to different trading systems could lead to regulatory arbitrage and drive liquidity away from electronic trading systems.

35. Furthermore, as specified in Recital 18 of Regulation 1287/2006 under MiFID I, the requirement for real time publication is founded on the assumption that there will be a reasonable level of efficiency and expenditure on systems on the part of the person concerned. Therefore, non-electronic systems should adapt their functionalities to the MiFIR transparency requirements.
36. Given this, ESMA is of the opinion that where real time transparency requirements apply, details of non-equity transactions should be made public within a maximum limit of five minutes after the transaction.

Q140: Do you agree that for the initial application of the new transparency regime the information should be made public within five minutes after the relevant non-equity transaction? Please provide reasons for your answer.

Deferred publication regime

Background/Mandate/Empowerment

37. Article 11(1) of MiFIR requires that NCAs shall be able to authorise investment firms, including systematic internalisers, market operators and investment firms operating a trading venue, to provide for deferred publication of the details of transactions based on the size or type of transaction.
38. The deferral of publication may be authorised for:
 - i. large in scale transactions compared with the normal market size for the financial instrument or for the asset class;
 - ii. transactions that are related to financial instruments or to the related asset class for which there is not a liquid market;
 - iii. transactions that are above a size specific to that financial instrument or that class of financial instruments traded on a trading venue, which would expose liquidity providers to undue risk and takes into account whether the relevant market participants are retail or wholesale investors; and
 - iv. types of transactions.
39. Where an NCA has authorised a deferral, Article 11(3) MiFIR permits NCAs to require market participants to make some information public during the deferred period whilst omitting or aggregating other information during an extended time period of deferral.
40. Therefore the exact application of any deferred publication regime depends on two decisions by the NCA:
 - i. firstly, the competent authority has to decide whether a deferred publication of trades is permissible at all; and

- ii. secondly, it has to decide whether during the period of deferral certain items of information already have to be made public and whether certain information can be omitted and trades can be aggregated during an extended time period of deferral.
41. If the NCA decides that deferred publication is available and that certain items of information have to be made public during the deferred period and that limited information is published during an extended time period of deferral then it has to apply the exact methods and thresholds prescribed in the future ESMA technical standard.
 42. ESMA emphasises that, all details of transactions must be published when the deferral time period has elapsed, with an exception for sovereign debt instruments where the publication of several transactions in an aggregated form for an indefinite period of time is permitted. In summary, for sovereign debt, MiFIR provides that the options for omitting the publication of the volume of an individual transaction during an extended time period and for permitting the publication of several transactions in an aggregated form for an indefinite period of time may be used either separately or consecutively whereby once the volume omission extended period lapses, the volumes could then be published in aggregated form for an indefinite period.

Article 11(3), MiFIR

Competent authorities may, in conjunction with an authorisation of deferred publication:

- (a) request the publication of limited details of a transaction or details of several transactions in an aggregated form, or a combination thereof, during the time period of deferral;*
- (b) allow the omission of the publication of the volume of an individual transaction during an extended time period of deferral;*
- (c) regarding non-equity instruments that are not sovereign debt, allow the publication of several transactions in an aggregated form during an extended time period of deferral;*
- (d) regarding sovereign debt instruments, allow the publication of several transactions in an aggregated form for an indefinite period of time.*

In the case of sovereign debt instruments, points (b) and (d) may be used either separately or consecutively whereby once the volume omission extended period lapses, the volumes could then be published in aggregated form.

In the case of all other financial instruments, when the deferral time period lapses, the outstanding details of the transaction and all the details of the transactions on an individual basis shall be published.

43. Paragraphs (c) and (d) of Article 11(4) of MiFIR, require ESMA to draft RTS specifying conditions and criteria for authorising the deferred publication of those transactions.

Article 11(4), MiFIR

ESMA shall develop draft regulatory technical standards to specify the following in such a way as to enable the publication of information required under Article 64 of Directive .../.../EU:

[...]

(c) the conditions for authorising investment firms, including systematic internalisers, and market operators and investment firms operating a trading venue, to provide for deferred publication of the details of transactions for each class of financial instrument concerned in accordance with paragraph (1) of this Article and with Article 21(4);

(d) the criteria to be applied when determining the size or type of a transaction for which deferred publication and publication of limited details of a transaction, or publication of details of several transactions in an aggregated form, or omission of the publication of the volume of a transaction with particular reference to allowing an extended length of time of deferral for certain financial instruments depending on their liquidity, is allowed under paragraph 3.

Analysis

44. This section discusses deferrals for non-equity instruments in the following order:

- i. principles for setting deferrals;
- ii. deferrals based on ‘size’ of transaction (size specific to the instrument and large in scale);
- iii. deferrals for illiquid instrument;
- iv. deferrals for sovereign debt; and
- v. deferrals for ‘type’ of transactions.

Principles for setting deferrals

45. MiFID II establishes a new post-trade transparency regime for non-equities. An appropriate regime for deferred publication is important in these markets as many instruments are relatively illiquid in nature and, in some cases, rely on firms adopting risk to provide liquidity. Deferred publication assists participants in managing such risk by giving them a period of time prior to the publication of their trades to undertake offsetting business.
46. It is important that post-trade transparency regimes for different types of instrument, whilst potentially differing, sit coherently with each other. It is also beneficial if there is an appropriate level of consistency between the regulatory approaches in different jurisdictions and regions. Consequently, as a starting point, ESMA has considered the existing regime for shares under MiFID I and subsequent recommendations by CESR, and the US regime which has post-trade transparency reporting in place for non-equities.
47. Under MiFID I, a post-trade transparency regime with deferrals is in place for shares only. The current calibration of post-trade transparency requirements for shares is based on the concept that the higher the minimum large in scale size for each class of shares (determined by ADT), the longer the permitted deferral period, which ranges from 60 minutes to the end of the third trading day after the execution of the trade.
48. However, as discussed in the section on the deferred publication regime in section 3.2 post-trade transparency equities, CESR’s technical advice in 2010 (CESR\10-802) on the criteria for deferred publication for shares highlighted that, although there is justification for delaying publication in order to unwind large positions, there is a concern that currently such delays for share transactions are of

ten too long to ensure adequate transparency. CESR considered that the overall benefit of improved transparency and reduced information asymmetries across the market outweighs potential costs. In this regard, CESR put forward recommendations and in particular, recommended shortening the intra-day deferral and the maximum deferral to the end of the day.

49. ESMA has also considered the functioning of TRACE in the US, the FINRA utility that collects and disseminates data on transactions executed on eligible fixed income securities, pursuant to the mandatory reporting of OTC secondary market transactions in those securities. All FINRA-regulated firms must report transactions in TRACE-eligible securities and must do so within 15 minutes for corporate and agency bonds and 45 minutes for TBAs securities with good delivery. In practice, over 80% of all corporate and agency transactions are made public within five minutes. If the size of transactions in investment grade corporate bonds is above \$5m, the volume is masked and only the \$5m cap amount is reported. This applies also for transactions in high yield corporate bonds above \$1m.
50. The recent CFTC rules which specify details related to the application of the Dodd-Frank Act on transparency for derivatives also provide a useful reference point. For transactions above block sizes, deferred publication is allowed. However, the time delay for public dissemination (which depends on the types of instruments and the types of counterparties involved) is often less than one hour and rarely exceeds the end of the day (for large sizes, the volume disclosed is capped and, thus, there is no reason for delaying the publication for more than a day).
51. ESMA is mindful that the markets for equities and for non-equities are very different and that distinctive features of liquidity and trading patterns for non-equity instruments may require a different calibration of deferrals for the publication of post-trade information compared with shares. However, ESMA also considers that delays should not be so long that they undermine the role of transparency in the price discovery process. ESMA also notes there are two significant differences between the way in which the post-trade transparency regime is drawn for non-equities and for equities and equity-like instruments:
 - i. firstly, there is a liquidity test for non-equity instruments: for those instruments which do not have a liquid market, a deferral is permitted as ESMA must consider “*an extended length of time of deferral for certain financial instruments depending on their liquidity*”. There is no equivalent deferral for equity and equity-like instruments based on whether the instrument is liquid or not. Based on ESMA’s initial calculations for bonds a large percentage of instruments may already be eligible to benefit from this deferral; and
 - ii. secondly, under the deferral regime for equity and equity-like instruments, no details of the instructions are made public i.e. the transaction remains ‘dark’ for the length of the deferral period. In contrast, where an NCA has authorised a deferral under the non-equity regime, it may then, in accordance with Article 11(3), require some information of the transaction to be made public during the deferred period so that it is not completely ‘dark’. Also there are rules applying during an extended time period of deferral.
52. Therefore, in setting the deferral regime for non-equities, calibration is required both for the length of the deferral and for the type of information (if any) to be made public during the deferred period.
53. With respect to the first calibration, ESMA considers that the division between liquid and illiquid instruments permitted for non-equity instruments means that only liquid instruments will require a deferral for large in scale transactions and for transactions above the size specific to the instrument

(since there will be a separate deferral for illiquid instruments). Given the limitation of these deferrals to liquid instruments, ESMA's initial view is that the time period for the large in scale and size specific to the instrument deferrals could be similar to the time period of deferrals proposed under the large in scale regime for equities (see section 3.2 on post-trade transparency for equities). For the illiquid instrument deferral (discussed separately in the section below), ESMA considers that a longer deferral period is necessary and therefore proposes a longer period.

Deferrals based on 'size' of transaction (size specific to the instrument and large in scale)

54. On the basis of the above discussed principles and observations, ESMA suggests the following proposal for setting the 'large in scale' and 'size specific to the instrument' deferrals:
55. In line with the current regime for shares, the calibration of deferrals should be set so that the higher the minimum qualifying size for each class of instruments (i.e. the large in scale threshold and the size specific to the instrument threshold), the longer the permitted deferred period. Section 3.9 discusses in more detail how the large in scale table could be set and section 3.10 discusses the size specific to the instrument. ESMA's initial idea is that for each different class, a specific deferral period could be attached.
56. In more details, ESMA is evaluating whether:
 - i. the maximum period of deferral should not exceed the end of day (EOD) with only the largest transactions occurring late in the day (15.00 or later) to be published prior to the opening of trading on the next day. The EOD publication would apply to transactions which are above the highest value large in scale thresholds;
 - ii. the maximum intra-day deferral period should not exceed 120 minutes and should be lower (e.g. 60 minutes) for transactions above a size specific to the instrument which are likely to be smaller than large in scale transactions; or
 - iii. during the deferral periods, the volume would be masked with a flag indicating that the transaction is above the relevant threshold (large in scale or size specific to the instrument) and all the other details of individual transactions would be published where required by a competent authority;
57. ESMA is also considering whether a specific regime for the 'large in scale' and the 'size specific to the instrument' deferral periods should be calibrated for sovereign bonds, taking note of the specific rules attached to sovereign bond trading in MiFIR and Recital 16 of MiFIR.

- Q141: Do you agree with the proposed text or would you propose an alternative option? Please provide reasons for your answer.**
- Q142: Do you agree that the intra-day deferral periods should range between 60 minutes and 120 minutes?**
- Q143: Do you agree that the maximum deferral period, reserved for the largest transactions, should not exceed end of day or, for transactions executed after 15.00, the opening of the following trading day? If not, could you provide alternative proposals? Please provide reasons for your answer.**
- Q144: Do you consider there are reasons for applying different deferral periods to different asset classes, e.g. fixing specific deferral periods for sovereign bonds? Please provide arguments to support your answer.**

Deferrals for illiquid instruments

58. Article 11(4) of MiFIR requires ESMA to specify “the criteria to be applied when determining the size or type of a transaction for which deferred publication ... with particular reference to allowing an extended length of time of deferral for certain financial instruments depending on their liquidity, is allowed under paragraph 3.”
59. ESMA’s view is that the requirement to “have reference to allowing an extended length of time of deferral for certain financial instruments depending on their liquidity” should be linked to the determination made regarding whether or not an instrument, or class of instruments, has a liquid market, in accordance with the definition of ‘liquid market’ under Article 2(1)(17)(a) (discussed in section 3.6 of this Discussion Paper). Where a determination is made that an instrument does not have a liquid market, it will benefit from a deferral for an extended period. By ‘extended period’, ESMA takes this to mean a deferral which is longer than those permitted for large-in-scale transactions and transactions which are above the size specific to the instrument.
60. ESMA’s preliminary view is that the deferral period for all illiquid instruments should be until the end of day + 1. In this regard, ESMA seeks feedback from market participants on two key points, firstly, whether they consider a deferral to the end of day +1 to be sufficient and secondly whether it is appropriate to have one deferral period for all illiquid instruments or whether there are justified reasons for specifying different deferral periods for different illiquid instruments, depending on their asset class and sub asset class. In setting a more granular deferral table, ESMA is mindful of the trade-off between accuracy and complexity.
61. ESMA is also considering what information could be made public during the deferral period for illiquid instruments. ESMA is of the view that aggregation of information during the deferral period for illiquid instruments is unlikely to be appropriate as transactions in such instruments could be so infrequent that there are few or no other instruments with which to aggregate. Therefore, ESMA proposes that during the period of deferral the volume of the transaction is omitted but all the other details of individual transactions must be published.

- Q145: Do you support the proposal that the deferral for non-equity instruments which do not have a liquid market should be until the end of day + 1? Please provide reasons for your answer.**
- Q146: Do you think that one universal deferral period is appropriate for all non-equity instruments which do not have a liquid market or that the deferrals should be set at a more granular level, depending on asset class and even sub asset class. Please provide reasons for your answer.**
- Q147: Do you agree with the proposal that during the deferred period for non-equity instruments which do not have a liquid market, the volume of the transaction should be omitted but all the other details of individual transactions must be published? Please provide reasons for your answer.**

Deferral Table

62. The below table provides a very broad overview of how ESMA would set the deferral table (assuming the approach under Option 1 (see section above on deferrals based on “size” of transaction - size specific to the instrument and large in scale) is adopted for large in scale and size specific to the instrument deferrals which would set different deferral periods unlike Option 2 where the same deferral period would be applied to large in scale and size specific. Note that the final table would be more granular for:
- i. the “size is equal to or above size specific to the instrument but below the large in scale threshold” row; and
 - ii. the “size is equal to or above large in scale threshold” row depending on the calibration of these sizes at asset class and sub asset class level.
63. The table proposes a time period range for the large in scale and size specific to the instrument deferral periods because the length of the deferrals ultimately set could depend on:
- i. the asset class/sub asset class if it is determined that different deferral periods are appropriate for different asset class/sub asset classes; and
 - ii. the liquidity of the instrument within one asset class/sub asset class if the thresholds and deferrals are further grouped into different classes, for example, as proposed under Option 1 discussed for large in scale transactions below (see section 3.9) where the proposal is to divide each sub asset class up into bands of “lower liquidity, medium liquidity and higher liquidity” (this proposal is analogous to the existing large in scale deferral regime for equities under MiFID I where equities are split between different ADT classes and each class has a different large in scale threshold and deferral period).
64. The final table could also have greater granularity for the “illiquid instruments” row if it is determined that different asset classes require different deferral periods.
65. Where the NCA has authorised a deferral, the time periods for the deferral are set out in the second column of the table. In addition, the NCA may require the market participant to make public certain information during the deferral period, as specified under the fourth column of the table.

Size of transaction	Deferral period, (if deferral authorised by Competent Authority)	Details to be published <u>after</u> the deferral period	Details to be published <u>during</u> the deferral period if requested by Competent Authority
Non-equity instruments assessed as having a Liquid Market			
Size is below the thresholds for the size specific to the instrument and large in scale	N/A	Publication of all details as close to real time as technically possible and no later than 5 minutes	N/A
Size is equal to or above size specific to the instrument but below the large in scale threshold	60 minutes to 120 minutes	All details to be published after the deferral period is over	All details to be published as close to real time as technically possible and no later than 5 minutes except volume, which can be omitted (indicated by a flag) for xx minutes
Size is equal to or above large in scale threshold	120 minutes to End of Day	All details to be published after the deferral period is over	All details to be published as close to real time as technically possible and no later than 5 minutes except volume, which can be omitted (indicated by a flag) for xx minutes
Non-equity instruments assessed as not having a Liquid Market			
Illiquid instruments	End of Day +1	All details to be published after the deferral period is over	All details to be published after end of day 1 except the volume, which can be omitted (indicated by a flag) until EOD + 1

Table: Post-trade transparency deferrals - ESMA proposal

Deferrals for sovereign debt

66. As noted above, where an NCA has authorised a deferral, Article 11(3) of MiFIR permits NCAs to require market participants to make some information public during the deferred period whilst omitting or aggregating other information. Article 11(3) has specific provisions related to sovereign debt which would allow for a more generous deferral than for other instruments. In particular, for sovereign debt NCAs may:

- i. “allow the publication of several transactions in an aggregated form for an indefinite period of time” under Article 11(3)(d); and
- ii. allow the omission of the publication of the volume of an individual transaction (under Article 11(3)(b)) and publication in an aggregated form for an indefinite period (under Article 11(3)(d)) to “be used either separately or consecutively whereby once the volume omission extended period lapses, the volumes could then be published in aggregated form”.

67. As discussed in sub-section on the overall scope of the transparency regime in section 3.5 – Introduction to the non-equity section and scope of non-equity financial instruments of the Discussion Paper,

the definition of sovereign issuer under Article 4(1)(60) is restricted to EU issuers and therefore ESMA considers that securities issued in a non EU country should not qualify as ‘sovereign debt’ under the transparency regime. Consequently, the additional deferrals permitted for sovereign debt would not be available for sovereign debt issued by third country issuers.

68. In considering what deferrals are appropriate for sovereign debt transactions, ESMA has the following views:
- i. that deferral of post-trade public information is an exception to the ordinary transparency regime and where deferrals are permitted for bonds, based on transaction size and liquidity (as discussed above), these deferrals will be available to all bonds including sovereign debt;
 - ii. therefore the use of additional delays for sovereign debt, i.e. permitting an extended and/or indefinite time period of deferral, should be available on a more limited basis and authorised only when pre-determined criteria are fulfilled, in order to avoid discretionary decisions and supervisory arbitrage; and
 - iii. the specific provision for an indefinite time period of deferral for sovereign debt transactions does not mean that all details will never be published. The deferral of publication of several transactions in an aggregated form is of an indefinite length – i.e. not predetermined ex ante –so that liquidity providers have certainty that they will always be able to hedge their position.
69. Consequently, ESMA is of the preliminary view that extended/indefinite deferrals for sovereign debt should be authorised only in limited circumstances where conditions are such that they might impact on the market as a whole, create uncertainty, or affect financial stability.
70. In such cases, the publication of several transactions in an aggregated form for an indefinite period would apply to all sovereign debt. When the conditions which necessitate such action have passed, the conditions for authorising an indefinite time period of deferral should also lapse and all details of the transaction be made public.
71. ESMA considers it is relevant to clarify that the deferral for an indefinite period has features and purposes different from the empowerment pursuant to Article 11(2) that allows NCAs to suspend temporarily the post-trade transparency requirements. As described in the sub-section on temporary suspension of transparency requirements in section 3.6 on the liquid market definition for non-equity financial instruments, the temporary suspension is justified only when there is a significant fall in liquidity, whereas the limited circumstances discussed here, where extended/indefinite deferral may be appropriate, would not necessarily imply a reduction of liquidity but conditions in which it is difficult for liquidity providers to make a reasonable forecast regarding the time and costs required to hedge the position. Under such conditions, the transparency regime (including both pre-trade and post-trade requirements) would still apply, except that the volume of transactions can be omitted and/or price information concerning transactions can be aggregated on sovereign debt instruments, whereas the empowerment pursuant to Articles 9 (4) and 11(2) of MiFIR allows for a temporary suspension of the transparency regime as a whole.
72. ESMA is of the opinion that the application of extended/indefinite deferrals in limited circumstances should be specified through objective and well-defined criteria, in order to avoid discretionary application and regulatory arbitrage, based on the provisions for deferred publication. ESMA is seeking

views on which criteria and/or conditions it would be appropriate to specify for use of these extended/indefinite deferrals.

Q148: Do you agree that publication in an aggregated form with respect to sovereign debt should be authorised for an indefinite period only in limited circumstances? Please give reasons for your answers. If you disagree, what alternative approaches would you propose?

Q149: In your view, which criteria and/or conditions would it be appropriate to specify as indicating there is a need to authorise extended/indefinite deferrals for sovereign debt??

Deferrals for 'types' of transactions

73. ESMA has given preliminary consideration to what 'type' of transactions might be authorised for the deferral of publication. In this regard, ESMA is evaluating whether those trades that are determined by factors other than the valuation of the instrument - e.g. give-up/give-in trades – could be authorised for deferred publication at the end of the day without jeopardising the price discovery process, taking into account that the 'real time' publication of post-trade information for such transactions would not add useful information to the public investor.

Q150: In your view, could those transactions determined by other factors than the valuation of the instrument be authorised for deferred publication to the end of day? Please provide reasons for your answer.

3.9. The transparency regime of non-equity large in scale orders and transactions

Background/Mandate/Empowerment

1. According to Article 9(1)(a) of MiFIR orders in non-equity financial instruments that are large in scale compared with the normal market size are able to benefit from a waiver from pre-trade transparency.

Article 9(1), MiFIR

Competent authorities shall be able to waive the obligation for market operators and investment firms operating a trading venue to make public the information referred to in Article 8(1) for:

(a) orders that are large in scale compared with normal market size [...]

2. According to Article 9(5)(c) of MiFIR, ESMA is required to draft RTS specifying the size of orders that are large in scale.

Article 9(5), MiFIR

ESMA shall develop draft regulatory technical standards to specify the following:

[...]

(c) the size of orders that are large in scale [...] for which pre-trade disclosure may be waived under paragraph 1 for each class of financial instrument concerned

3. According to Article 11(1)(a) of MiFIR, NCAs shall be able to authorise the deferred publication of the details of transactions which are large in scale compared to the normal market size.

Article 11(1), MiFIR

Competent authorities shall be able to authorise market operators and investment firms operating a trading venue to provide for deferred publication of the details of transactions based on the size or type of the transaction.

In particular, the competent authorities may authorise the deferred publication in respect of transactions that:

(a) are large in scale compared with the normal market size for that bond, structured finance product, emission allowance or derivative traded on a trading venue, or for that class of bond, structured finance product, emission allowance or derivative traded on a trading venue

[...]

4. According to Articles 11(4)(c) and 11(4)(d) of MiFIR, ESMA is required to draft RTS specifying conditions and criteria for allowing the deferred publication of those transactions.

Article 11(4), MiFIR

ESMA shall develop draft regulatory technical standards to specify the following in such a way as to enable the publication of information required under Article 64 of Directive .../.../EU:

[...]

(c) the conditions for authorising investment firms, including systematic internalisers, and market operators and investment firms operating a trading venue, to provide for deferred publication of the details of transactions for each class of financial instrument concerned in accordance with paragraph 1 of this Article and with Article 21(4);

(d) the criteria to be applied when determining the size or type of a transaction for which deferred publication and publication of limited details of a transaction, or publication of details of several transactions in an aggregated form, or omission of the publication of the volume of a transaction with particular reference to allowing an extended length of time of deferral for certain financial instruments depending on their liquidity, is allowed under paragraph 3.

5. Under MiFID I pre-trade transparency large in scale regime, shares are grouped into five different bands according to their average daily turnover (ADT) which is calculated by dividing the total turnover of a share in a calendar year by the number of days available for trading for that share in that year. The higher the ADT, the higher the minimum threshold above which an order can be considered as being large in scale. In order to be considered large in scale, an order must be larger than the minimum threshold for its specific band and the pre-trade transparency requirements can be waived. This framework is founded on the assumption that the normal market size depends on the liquidity of the share, as measured by the proxy ADT.
6. Likewise, under MiFID I post-trade transparency regime for large in scale transactions, shares are classified in accordance with their ADT into four different liquidity bands. The higher the ADT, the higher the minimum threshold above which a transaction is large in scale and the longer the permitted deferral of publication (60 minutes, 180 minutes, until end of the third trading day after the trade).
7. The CESR technical advice published in 2010 recommended the implementation of a post-trade transparency regime for non-equity instruments (corporate and public bonds, structured finance products, clearing eligible single name and sovereign CDS, clearing eligible index CDS). Calibration of requirements was based solely on the size of transaction (as net value), where transactions above a minimum size were published intra day and only the largest transactions published at the end of the day with masked volume and an indication that the transaction had exceeded the threshold for very large transactions.
8. ESMA is of the opinion that granting waivers of large in scale orders and authorisation of deferred publication for large in scale transactions should be regulated under a common framework in order to avoid inconsistent application of distinct but correlated MiFIR provisions.
9. In this respect, ESMA aims to establish a methodology that:
 - i. identifies an appropriate scheme for the calibration of the large in scale requirements;
 - ii. defines the thresholds above which an order and/or a transaction is considered to be large in scale.

The calibration of the large in scale regime within asset classes

Analysis

10. ESMA is carrying out preliminary work to analyse whether the framework used for shares - based on several liquidity bands segmented on the basis of the ADT - could be an appropriate starting point for the universe of non-equity financial instruments.
11. Under Article 9(5)(c) of MiFIR, the size of orders that are large in scale should be specified for each class of financial instrument concerned.
12. ESMA is of the opinion that the post-trade and pre-trade large in scale thresholds should be computed at the level of asset classes or classes of financial instruments for the sake of consistency with the current regime for shares.
13. As noted above, the provisions for large in scale orders and transactions only apply to instruments for which the existence of a liquid market has already been assessed. It should be noted that the 'liquid market' definition may vary across the different classes of financial instrument and that 'liquid' classes of instruments may, in this respect, display different degrees of liquidity.
14. On the basis of such considerations, ESMA suggests the following possible options:
 - i. Option 1. As is the case under the current large in scale regime for shares, the determination of the thresholds should take into account the different levels of liquidity within the same asset class. As a result, the thresholds would be different for instruments clustered in a given liquidity band compared to those clustered in another band of the same asset class.

Under this option, the table of the thresholds for large in scale orders and transactions would be as follows, where the exact determination of asset classes will depend on future development of liquid markets framework (see section 3.6 – liquid market definition for non-equity financial instruments).

Asset class	The minium size qualifying orders/transactions as large in scale compared with the normal market size		
	Lower liquidity band	Medium liquidity band	Higher liquidity band
Bonds-asset class 1	X1	Y1	Z1
[...]	[...]	[...]	[...]
Derivatives- asset class n [...]	Xn	Yn	Zn

- a. *Advantages:* this option has the advantage of being reasonably accurate, because it would require a periodic and regular assessment of each instrument in order to assign it to the appropriate band of liquidity. For the same reason, the thresholds would be less vulnerable to structural changes in trading patterns: if the liquidity of an instrument falls significantly, it will move to a lower liquidity band and, thus, a lower threshold will apply.

- b. *Disadvantages*: the drawback to this option is that its initial implementation and ongoing computations would be costly and time-demanding since it would require the development of a database similar to the current MiFID database for shares for all non-equity financial instruments that are under the scope of the new transparency regime.

Further, under this option the choice of frequency (*e.g.* yearly, quarterly etc.) and time period basis (*e.g.* data on trading in the previous year/quarter etc.) of the periodic calculation exercise would be fundamental. Calculation performed too frequently and/or too short a reference period (*e.g.* a month) would have two main disadvantages: it would increase the ongoing operational costs and would potentially affect the general outcome, since the application of the large in scale regime would be subject to fluctuations as the frequent calculation and short reference periods would capture shocks in the market.

- ii. Option 2. The thresholds should be determined without any further consideration of liquidity within an asset class, under the assumption that the classification is sufficiently granular to aggregate instruments on the basis of homogenous patterns of liquidity and taking into account, as already outlined, that MiFIR provisions include *ad hoc* exemptions for 'illiquid instruments'.

In this respect, this option follows the approach recommended by CESR in its technical advice published in 2010 on non-equity post-trade transparency, in which the deferral of publication for large in scale transactions would be authorised for transactions above a certain threshold set for each asset class.

Under this option, the table of the large in scale thresholds for orders and transactions would be as follows (*e.g.* the thresholds of a bond in the 'asset class 1' – no matter how it would be defined – would be X1).

Asset class	Minimum Size of orders /transactions qualifying as large in scale compared with the normal market size
Bonds-asset class 1	X1
Bonds-asset class 2	X2
Bonds-asset class n [...]	Xn
Structured Finance Products- asset class 1	Y1
Structured Finance Products- asset class 2	Y2
Structured Finance Products- asset class n [...]	Yn
Emission allowances- Asset class 1	Z1
Emission allowances- Asset class 2	Z2
Emission allowances- Asset class n [...]	Z3
Derivatives- asset class 1	A1
Derivatives- asset class 2	A2
Derivatives- asset class n [...]	A3

Table 19: Large in scale thresholds

- a. *Advantages:* this option has the advantage of being simpler to implement on an ongoing basis insofar as it would not require periodic calculation on an instrument by instrument basis: once the threshold has been determined for each class, a transaction above such size would be large in scale.
 - b. *Disadvantages:* although the thresholds would be stable over time once they have been set, they could become obsolete if there are structural changes in the trading patterns. Therefore, ESMA considers that opting for this solution would imply a more frequent review of the thresholds.
15. ESMA is of the preliminary view that the calibration of large in scale thresholds within asset classes would depend upon the approach adopted for the assessment of liquidity of instruments (see sub-section on COFIA and IBIA in section 3.6 liquid market definition for non-equity financial instruments). Should the IBIA method be used, Option 1 could be easily implemented with a marginal increase in operational costs, insofar as a system for periodic computation instrument by instrument would be already in place. On the other hand, should the COFIA approach be adopted, Option 1 would be more burdensome and would invalidate the advantage of no periodic assessment of the liquidity of instruments in such approach.

Proposal

16. ESMA has a preference for Option 2. This is in line with the preference for the COFIA approach for assessing the liquidity of non-equity financial instrument as proposed in the sub-section applying the liquidity criteria to (classes of) financial instruments in section 3.6 liquid market definition for non-equity financial instruments of this Discussion Paper.

Q151: Do you agree with the proposed option? Which option would be more suitable for the calibration of the large in scale requirements within an asset class?

Q152: Do you consider there are reasons for opting for different options for different asset classes? Please provide arguments.

Q153: Do you agree that the choice between the two options should be consistent with the approach adopted for the assessment of liquidity? If not, please provide arguments.

The determination of the thresholds

Analysis

17. ESMA is evaluating what indicator would be the most appropriate proxy for the overall trading size compared to which large in scale thresholds for orders and transactions should be computed. In addition, in the case of option 1 for the calibration of large in scale thresholds within classes, such trading sizes should also be clustered into liquidity bands.
18. On the basis of the analysis carried out for the determination of the 'average size of transactions' - as one of the components of the definition of 'liquid markets' in Article 2(1)(17) of MiFIR (see the definition in section 3.6 liquid market definition for non-equity financial instruments) - ESMA is considering the two following options:
 - i. Option 1. The average daily turnover (ADT) could be used, as it is for the current large in scale regime for shares. This proxy would be computed as the ratio between the total turnover over a certain period and the number of days available for trading in that period. It could be argued that the ADT does not take into account the fact that trading in non-equity financial instruments could be episodic, in the sense that periods with high turnover alternate with periods of low - or even no - turnover⁷⁴. Furthermore, since the ADT is computed as an average, it does not take into account uneven distributions of size of orders/transactions: there could be orders/transactions which are below the ADT but still large in the distribution of the size. In this respect, ESMA considers that the first issue is not relevant for two reasons:
 - a. The objective is to identify a size above which the order/transaction is large enough to merit an exception from the transparency regime independent of the underlying structure of trading for each class (i.e. the distribution of trade sizes for a given level of liquidity);
 - b. The large in scale regime applies to 'liquid' classes of financial instruments which, in accordance with the MiFIR definition, should be *inter alia* frequently traded.

With regard to the second issue, ESMA notes that MiFIR includes ad hoc exceptions from the transparency regime for both actionable indications of interest in the Request-For-Quote and voice trading systems and transactions which are 'above a size specific' to the instruments.

⁷⁴ For instance, two instruments could have the same ADT (computed, say, on a yearly basis) even though the trading of one instrument is concentrated in a month, whereas the other is traded at least twice a month.

- ii. Option 2. As an alternative, the average value of transactions (AVT) could be used as a proxy for the overall trading size.
19. Again, ESMA is of the preliminary view that the proxy used for the determination of the normal market size within asset classes should be the same used to assess the liquidity of markets, *i.e.* if ADT is used for determining the average size of transactions, ADT should be used also for determining the normal market size. Such an approach would make the overall regime simple and consistent.

Proposal

20. ESMA has a preference for Option 1, consistent with its stated preference in sub-section on the average size of transactions in section 3.6 liquid market definition for non-equity financial instruments on the proxy for the average size of transactions for the purposes of assessing liquid markets.

Q154: Do you agree with the proposed approach? If no, which indicator would you consider more appropriate for the determination of large in scale thresholds for orders and transactions?

Q155: Do you agree that the proxy used for the determining the large in scale thresholds should be the same as the one used to assess the average size of transactions in the context of the definition of liquid markets? Please provide arguments.

21. Irrespective of the choice on the proxy, ESMA is also considering how to compute the large in scale thresholds. In this regard, ESMA suggests two options:
 - i. Option 1. The large in scale thresholds could be computed on the basis of a statistical measure of the central tendency -*i.e.* as the mean (or the median) of the distribution of the overall trading size for each class.
 - ii. Option 2. The large in scale thresholds could be set on the basis of a more policy oriented method. Rather than trying to define the thresholds directly, a minimum number of financial instruments or a minimum trading volume subject to transparency requirements would be defined (thus suggesting a '*coverage ratio*'). This approach would be consistent with the rules on transparency recently published by CFTC where thresholds for large in scale orders and transactions were set in order to ensure that 67% of the traded volume would be transparent.

Q156: In your view, which option would be more suitable for the determination of the large in scale thresholds? Please provide arguments.

Q157: Alternatively which method would you suggest for setting the large in scale thresholds?

22. ESMA notes that whilst a common framework is needed for a consistent application of large in scale orders and large in scale transactions, the purposes of pre-trade waivers and post-trade deferrals are different. Large in scale waivers aim at preventing market impact on the price formation process, whereas the purpose of large in scale publication deferrals is to encourage the provision of liquidity to the market by giving the intermediary some time to hedge or unwind its position. In May 2013 the CFTC published its rules on transparency requirements and the trading obligation. According to those rules transparency requirements only apply to transactions of swaps below the block sizes which are the same for pre-trade and post-trade, thus pursuing the objective of simplicity for both the industry and the supervisory authorities.

23. In this preliminary phase, ESMA is of the opinion that the large in scale thresholds for orders may differ from the large in scale thresholds for transactions, as is the case under the current pre- and post-trade transparency regime for shares.

Q158: In your view, should large in scale thresholds for orders differ from the large in scale thresholds for transactions? If yes, which thresholds should be higher: pre-trade or post-trade? Please provide reasons to support your answer.

Data collection for the determination of the thresholds

24. Following the implementation of MiFID II, ESMA is of the view that the large in scale thresholds, regardless of the methodology adopted, should be computed on the basis of transactions carried out on trading venues (regulated markets, multilateral trading facilities and organised trading facilities). This would be appropriate when computing the thresholds for the pre-trade waiver as this waiver applies only to on venue orders and, therefore, the inclusion of data on OTC transactions would bias the calculation. For the purposes of calibrating large in scale deferrals, ESMA recognises that preliminary work for the determination of thresholds should take into account transactions concluded OTC as the post trade transparency regime applies more broadly. However, in the future, following the implementation of MiFID II, the inclusion of OTFs as trading venues should provide a more complete and reliable picture of trading of non-equity financial instruments and, therefore, allow regulators to limit computation to the transactions carried out on trading venues.

Q159: Do you agree that the large in scale thresholds should be computed only on the basis of transactions carried out on trading venues following the implementation of MiFID II? Please, provide reasons for the answer.

Conditions for authorising deferral of large in scale transactions

25. The current large in scale transparency regime for shares allows deferred publication of details of such transactions, subject to the condition that the transaction is between an investment firm that deals on own account and a client of the investment firm. Such condition was required under the consideration that only when investment firms put their capital at risk to facilitate the trade of a third party is there a reason for deferring the publication of price and quantity of the transaction. ESMA is evaluating whether this condition should apply or not to transactions of non-equity financial instruments.

Q160: Do you think that the condition for deferred publication of large in scale transactions currently applying to shares (transaction is between an investment firm that deals on own account and a client of the investment firm) is applicable to non-equity instruments? Please provide reasons for your answer.

Periodic review

26. ESMA considers that the thresholds determined for large in scale waivers and deferrals should be reviewed after MiFIR has applied in practice for an appropriate period of time and data available to ESMA for determining thresholds has improved. Therefore ESMA notes the value of a periodic review of the future implementing measures which would trigger a review of the thresholds and could lead to an ESMA initiative for an amendment of the implementing measure if the thresholds are deemed to require re-calibration. ESMA considers that, in normal circumstances, such a review should be conducted no earlier than two years after the application of MiFIR and Level 2 in practice and not be more frequent than two year intervals thereafter.



Q161: Do you agree that the large in scale regime should be reviewed no earlier than two years after application of MiFIR in practice?

3.10. Size specific to the instrument

Background/Mandate/Empowerment

1. Under MiFIR a number of requirements for trading venues and investment firms dealing in non-equity financial instruments hinge on the concept of the size specific to the instrument. With regard to pre-trade transparency for trading venues MiFIR allows competent authorities to authorise a waiver for request-for-quote and voice trading systems that operate above a size specific to the financial instrument. This exemption from pre-trade transparency can be granted only where the trading venue operating the request-for-quote or voice trading system makes public at least indicative pre-trade bid and offer prices which are close to the price of the trading interests advertised through their systems. In this context, Article 9(5)(d) of MiFIR mandates ESMA to draft the relevant RTS.

Article 9(5)(d), MiFIR

[...]

5. *ESMA shall develop draft regulatory technical standards to specify the following:*

[...]

- (d) the size specific to the financial instrument referred to in paragraph 1(b) and the definition of request-for-quote and voice trading systems for which pre-trade disclosure may be waived under paragraph 1;*

When determining the size specific to the financial instrument that would expose liquidity providers to undue risk and takes into account whether the relevant market participants are retail or wholesale investors, in accordance with paragraph 1(b), ESMA shall take the following factors into account:

(i) whether, at such sizes, liquidity providers would be able to hedge their risks;

(ii) where a market in the financial instrument, or a class of financial instruments, consists in part of retail investors, the average value of transactions undertaken by those investors;

2. The importance of the size specific to the instrument goes beyond pre-trade transparency requirements for trading venues. The applicability of the newly established regime for investment firms that are systematic internalisers in bonds, structured finance products, derivatives and emission allowances is limited to when the firm deals below the size specific to the instrument. According to Article 18(10) of MiFIR, systematic internalisers for non-equity instruments will not be subject to pre-trade transparency requirements when they deal in sizes above the size specific to the financial instrument.

Article 18 (10), MiFIR

[...]

10. *Systematic internalisers shall not be subject to this Article when they deal in sizes above the size*

specific to the financial instrument determined in accordance with Article 9(5)(d).

3. Finally, in the post-trade space, Article 11(1)(c) of MiFIR allows NCAs to authorise deferred publication of post-trade information in respect of transactions executed on a trading venue that are above the size specific to the instrument. Given the cross reference to Article 11 in Article 21 of MiFIR, the deferred publication regime extends to transactions executed on a bilateral basis OTC (including when execution occurs within the systems of a systematic internaliser).

Article 11, MiFIR

1. *Competent authorities shall be able to authorise market operators and investment firms operating a trading venue to provide for deferred publication of the details of transactions based on the size or type of the transaction.*

In particular, the competent authorities may authorise the deferred publication in respect of transactions that:

[...]

(c) are above a size specific to that bond, structured finance product, emission allowance or derivative traded on a trading venue, or that class of bond, structured finance product, emission allowance or derivative traded on a trading venue, which would expose liquidity providers to undue risk and takes into account whether the relevant market participants are retail or wholesale investors.

Analysis

4. ESMA is of the view that two issues should be clarified regarding the size specific to the instrument. The first issue relates to the applicability of the provision referring to the size specific to the instrument, distinguishing between pre-trade and post-trade obligations. The second issue is how to translate the criteria set out in Article 11 of MiFIR into a methodology to calculate the size specific to the instrument.

Applicability of the provisions regarding the size specific to the instrument

5. With regard to the first issue ESMA notes that under MiFIR, the size specific to the instrument waiver is relevant only for (or applicable to) trading venues operating request for quotes or voice trading systems. Those trading systems (as defined in section 3.1 on pre-trade transparency for equities of this DP) will be subject to a less stringent pre-trade transparency regime when dealing above the size specific to the instrument, required to make public indicative pre-trade bid and offer prices only. Trading venues operating other trading protocols such as order book systems would not be able to use this waiver.
6. With regard to the pre-trade transparency regime for systematic internalisers, transactions above the size specific to the instrument are exempt from pre-trade transparency obligations, without any further requirement.
7. In contrast to the pre-trade transparency regime, MiFIR does not restrict the applicability of the size specific to the instrument in the post-trade space. In other words, according to Articles 11 and 21 of

MiFIR, any transaction that is above the size specific to the instrument should be eligible for deferred publication, irrespective of the type of trading system within which the transaction was executed or whether, in the case of a transaction executed off-venue, execution occurred within a systematic internaliser.

Q162: Do you agree with the above description of the applicability of the size specific to the instrument? If not please provide reasons for your answer.

Determination of the size specific to the instrument

8. With respect to the second issue, i.e. the methodology to calculate the size specific to the instrument, MiFIR requires ESMA to have regard to the following aspects:
 - i. not to expose liquidity providers to undue risk, with a view regarding whether liquidity providers would be able to hedge their risks; and
 - ii. where a market in the financial instrument, or a class of financial instruments consists, in part, of retail investors, the average value of transactions undertaken by those investors.
9. The above criteria clarify that the size specific to the instrument should be a size above which liquidity providers would be exposed to undue risk, for example, when a liquidity provider would have difficulties in hedging its risk in a proper and timely manner following a transaction. The provision also clarifies that the size specific to the instrument should take into account whether the relevant market participants are retail or wholesale and where a market consists, in part, of retail investors, the size specific to the instrument shall take into account the average value of transactions undertaken by those investors. ESMA notes that the provision intends to establish a link between the size specific to the instrument and the concept of the average value of transactions.
10. ESMA is of the view that in order to define the size specific to the instrument it is also necessary to have regard to the role that the concept plays in the context of the systematic internaliser regime for non-equity instruments.
11. The size specific to the instrument plays a key role in the systematic internaliser regime as it determines when an investment firm is required to make public a quote provided to a client on request and when the quote is made available to other clients (subject to the investment firm's commercial and risk management policy). ESMA notes that in the equity space a similar concept applies to systematic internalisers in shares, ETFs, depositary receipts and certificates where transparency requirements are limited to systematic internalisers dealing below the Standard Market Size (SMS) for that particular instrument. The SMS is a size representative of the arithmetic average of all the orders executed in the market excluding transactions that are large in scale.
12. On the basis of the above considerations ESMA proposes that the size specific to the financial instrument should be set as a percentage of the large in scale threshold for the orders/transactions in that particular financial instrument or class thereof. The size specific to the financial instrument could be set at a level below the large in scale threshold (as a percentage thereof) but above a certain size at which liquidity providers would be exposed to undue risk. ESMA seeks views from market participants on its proposal to set the size specific to the instrument as a percentage of the large in scale threshold and on measures which could be used to calculate the threshold for the size specific to the instrument.

13. ESMA is also considering, and seeks views on, how the size specific to the instrument waivers and deferrals will interact with the large in scale waivers and deferrals. If the threshold for the size specific to the instrument waiver is set at a level below the large in scale threshold, in practice, the large in scale waiver will not be necessary where a waiver has been granted at the size specific to the instrument threshold. However, as discussed above, the size specific to the instrument waiver is restricted to request for trading and voice trading systems only. Therefore, the large in scale waiver will be relevant for other types of trading systems where no size specific to the instrument waiver is permitted.
14. The situation is different with respect to deferrals where both the large in scale and the size specific to the instrument deferrals apply broadly, across all trading venues and systematic internalisers. However, in contrast to waivers which exempt entirely market participants from pre-trade transparency requirements, deferrals only exempt market participants from real time post-trade transparency but require that post-trade data is made available after a specified deferred period. Therefore, ESMA considers that one way of differentiating between the size specific to the instrument deferral and the large in scale deferral would be to vary the deferred periods attached to these deferrals.

Q163: Do you agree with the proposal that the size specific to the instrument should be set as a percentage of the large in scale size? Please provide reasons for your answer.

Q164: In your view, what methodologies would be most appropriate for measuring the undue risk in order to set the size specific threshold?

Q165: Would you suggest any other practical ways in which ESMA could take into account whether, at such sizes, liquidity providers would be able to hedge their risks?

Q166: Do you agree with ESMA's description of how the size specific to the instrument waiver would interact with the large in scale waiver? Please provide reasons for your answer.

Q167: Do you agree with ESMA's description of how the size specific to the instrument deferrals would interact with the large in scale deferrals? In particular, do you agree that the deferral periods for the size specific to the instrument and the large in scale should differ and have any specific proposals on how the deferral periods should be calibrated? Please provide reasons for your answer.

3.11. The Trading Obligation for Derivatives

Background/Mandate/Empowerment - Introduction

1. The primary purpose of the MiFIR trading obligation is to determine which of those derivatives subject to the EMIR 'clearing obligation' should also be required to trade on a regulated market, MTF, OTF, or equivalent third country venue when traded by relevant counterparties (as defined in EMIR). ESMA is aware that the scope of the trading obligation will encompass certain larger non-financial counterparties and their interests will be taken into account.

Article 28, MiFIR

1. Financial counterparties as defined in Article 2(8) of [EMIR] and non-financial counterparties that meet the conditions referred to in Article 10(1)(b) thereof shall conclude transactions which are neither intragroup transactions as defined in Article 3 of [EMIR] nor transactions covered by the transitional provisions in Article 89 of [EMIR] with other such financial counterparties or other such non-financial counterparties that meet the conditions referred to in Article 10(1)(b) of [EMIR] in derivatives pertaining to a class of derivatives that has been declared subject to the trading obligation in accordance with the procedure set out in Article 32 and listed in the register referred to in Article 34 only on:

a) regulated markets;

b) MTFs

c) OTFs; or

d) [certain] third country trading venues....

2. As the trading and clearing obligations are linked in this way, it is the clear intention of MiFIR that the relevant rules under MiFIR will be as consistent as possible with those under EMIR. Under EMIR, ESMA has allocated OTC derivatives to 'classes', defined as 'a subset of derivatives sharing common and essential characteristics including at least the relationship with the underlying asset, the type of underlying asset, and currency of notional amount'.
3. These classes are then further split into sub-classes, taking into account 'any other characteristic required to identify one contract in the relevant class of OTC derivatives from another'. One way in which ESMA has achieved this is to identify 'key' characteristics and 'other' characteristics within each class. The key characteristics are those characteristics which are shared by all contracts within a class (e.g. product type), and other characteristics help to discriminate within a class (e.g. tenor). For the purposes of the trading obligation, these terms will be the starting point, but ESMA may specify additional characteristics to create more granular categories.
4. Under Article 32 of MiFIR, every time a class of derivatives (or relevant subset) is declared subject to the clearing obligation, ESMA will have 6 months in which to consult on and bring forward draft RTS stating if they should also be made subject to the trading obligation and if so, when.
5. Accordingly, with the exception of the technical standard under Article 28(5) of MiFIR which concerns the relationship of third countries to the trading obligation, the trading obligation process will not require the generation of general technical standards. Instead, ESMA will mostly respond to deci-

sions taken under the clearing obligation⁷⁵. In effect, ESMA will have gained a new, long term task to be conducted on a routine basis. However ESMA recognises that it will assist industry, and simplify the process of making individual determinations, if it outlines in advance the approach it plans to use for the trading obligation. ESMA therefore intends to publish its thinking and consult widely before MiFIR comes into force. This chapter forms the first step of that process.

6. Whilst the trading obligation itself does not yet apply, ESMA will immediately take on this responsibility of considering determinations made under the clearing obligation and deciding whether any sub-class of derivatives can already be assessed as sufficiently liquid for the trading obligation to apply. In practice, ESMA may not be able to make such a determination until the OTF category (and the liquidity criteria in this paper) becomes clearer but it will do so wherever possible.

Q168: Do you agree that there should be consistent categories of derivatives contracts throughout MiFIR/EMIR?

The Interaction of the Trading Obligation with Third Country Counterparties

Background/Mandate/Empowerment

7. Article 28 of MiFIR outlines the relationship of the trading obligation with 3rd countries for which no equivalence assessment has been made (Article 28(4) empowers the Commission to determine that a 3rd Country venue is suitable for use under the terms of the trading obligation). Article 24(5) requires ESMA to define which derivatives contracts involving third country counterparties have a ‘direct, substantial and foreseeable effect within the Union’. Article 28(2) also obliges ESMA to monitor the derivatives market in general and report on situations which might give rise to systemic risk or regulatory arbitrage. This monitoring activity should provide the level of understanding required for ESMA to discharge its duties under the rest of Article 28.

Article 28, MiFIR

[...]

5. In order to ensure consistent application of this article, ESMA shall develop draft regulatory technical standards to specify the types of contracts [between EU and third country counterparties] which have a direct, substantial and foreseeable effect within the Union and the cases where the trading obligation is necessary or appropriate to prevent the evasion of any provision of this Regulation....

Where possible and appropriate, the regulatory technical standards referred to in this paragraph shall be identical to those adopted under [EMIR].

Analysis and proposal

⁷⁵ This link to the clearing obligation does mean that the trading obligation cannot apply to any derivatives contracts which are not traded OTC and already trade exclusively on venues, since such contracts will fall outside of the scope of EMIR and can never be said to be subject to the clearing obligation. However given the breadth of the sub-classes that will be defined under the clearing obligation, ESMA believes there will be very few contracts that might fit this description. In any case, the market has already moved any such contracts on to venue and so they can pose no threat to the G-20 commitment- and were they to move to OTC trading then they would enter the scope of EMIR.

8. The requirement under Article 28(5) of MiFIR closely mirrors one in the clearing obligation under EMIR and ESMA proposes to take the same approach applied by ESMA in that case (ESMA/2013/892) in order to keep its rules consistent.
9. The most important consideration is that the resultant framework should be enforceable, and offer legal certainty for financial counterparties. To this end ESMA is of the view that there are two clear cases where a contract can be said to have a direct, substantial and foreseeable effect within the Union for the purposes of the trading obligation:
 - i. Contracts entered into by a third country entity which has a guarantee from an EU financial counterparty (as defined by EMIR) and would be subject to the clearing obligation if they were established in the EU. The EMIR rules provide for a threshold where the activity must be equal to or greater than 5% of the total OTC derivatives exposures that the EU financial counterparty faces, and constitutes an absolute value of more than €8Bn. ESMA sees no obvious reason to have a different threshold for the trading obligation, and recognises the difficulty were firms asked to abide by very similar, but not identical rules under EMIR and MiFIR.
 - ii. Contracts entered into between two European branches of non-EU financial and non-financial counterparties (as defined in EMIR).
10. It should be clear when a contract falls in to one of these two categories, and they should also be enforceable because in each case the relevant competent authority would be able to engage with a firm that they have a regulatory relationship with.
11. ESMA proposes to also put in place a criteria based anti-avoidance procedure, as similar as possible to the one used under the clearing obligation process. In certain circumstances, this measure could be used to require a transaction entered into by counterparties established in third countries to take place on venue. ESMA will develop and publish an indicative set of criteria, similar to those under development for the clearing obligation, to measure the substance or effect on the Union of trading which would normally but subject to the trading obligation but escapes it by virtue of a unique business arrangement. ESMA recognises that there will be legitimate such examples, and ESMA will take a global view of a firms' business, but in broad terms if a business arrangement has been entered in to solely for the purpose of avoiding the trading obligation then ESMA will impose the trading obligation and NCAs may consider other action.

Q169: Do you agree with this approach to the treatment of third countries?

The Trading Obligation Process

Background/Mandate/Empowerment

12. The application of the trading obligation is defined by Article 32 of MiFIR. This outlines the process under which derivatives should be declared subject to mandatory trading and defines ESMA's exact role in developing the relevant draft RTS.

Article 32, MiFIR

1. ESMA shall develop draft regulatory technical standards to specify the following:

- a. *which of the class of derivatives that has been declared subject to the clearing obligation in accordance with Article 5 (2) and (4) of [EMIR] or a relevant subset thereof shall be traded on the venues referred to in Article 28(1) of this regulation;*
- b. *the date or dates from which the trading obligation takes effect, including any phase-in and the categories of counterparties to which the obligation applies where such phase in and such categories of counterparties have been provided for in regulatory technical standards in accordance with Article 5(2)(b) EMIR.*

ESMA shall submit those draft regulatory technical standards to the Commission within 6 months after the adoption of the regulatory technical standards in accordance with Article 5(2) of Regulation (EU) No 648/2012 by the Commission.

Before submitting the draft regulatory technical standards to the Commission for adoption, ESMA shall conduct a public consultation, and, where appropriate, may consult third-country competent authorities.

Power is conferred to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with Articles 10 to 14 of Regulation (EU) No 1095/2010.

2. In order for the trading obligation to take effect:

- a. *the class of derivatives... or a relevant subset thereof must be admitted to trading or traded on at least one trading venue as referred to in Article 28(1), and*
- b. *there must be sufficient [...] third party buying and selling interest in the class of derivatives or a relevant subset thereof so that such a class of derivatives is considered sufficiently liquid to trade only on the venues referred to in Article 28(1).*

3. In developing the draft regulatory technical standards... ESMA shall consider the class of derivatives or a relevant subset thereof as sufficiently liquid pursuant to the following criteria:

- a. *the average frequency and size of trades over a range of market conditions, having regard to the nature and lifecycle of products within the class of derivatives;*
- b. *the number and type of active market participants including the ratio of market participants to products/contracts traded in a given product market;*
- c. *the average size of the spreads.*

In preparing those draft regulatory technical standards, ESMA shall take into consideration the anticipated impact that trading obligation might have on the liquidity of a class of derivatives or a relevant subset thereof and the commercial activities of end users which are not financial entities.

ESMA shall determine whether the class of derivatives or relevant subset thereof is only sufficiently liquid in transactions below a certain size.

4. ESMA shall, on its own initiative, in accordance with the criteria set out in paragraph 2 and after conducting a public consultation, identify and notify to the Commission the classes of derivatives or individual derivative contracts that should be subject to the obligation to trade on the venues referred to

in Article 28(1), but for which no CCP has yet received authorisation under Article 14 or 15 of [EMIR] or which is not admitted to trading or traded on a venue referred to in Article 28(1).

Following a notification by ESMA, the Commission may publish a call for development of proposals for the trading of those derivatives on the venues referred to in Article 28(1).

5. ESMA shall in accordance with paragraph 1, submit to the Commission draft regulatory technical standards to amend, suspend or revoke existing regulatory technical standards whenever there is a material change in the criteria set out in paragraph 2. Before doing so, ESMA may, where appropriate, consult the competent authorities of third countries.

Power is conferred to the Commission to adopt regulatory technical standards referred to in this paragraph in accordance with Articles 10 to 14 of Regulation (EU) No 1095/2010.

Analysis and proposal

13. Whether or not a class (or sub-class) of derivatives should be made subject to the trading obligation will be determined by two main factors:
 - i. *The Venue Test*. Whether a class or sub-class is admitted to trading on a venue.
 - ii. *The Liquidity Test*. Whether they are also ‘sufficiently liquid’ and there is sufficient third party buying and selling interest (in ESMA’s view, any ‘sufficiently liquid’ class or sub-class will also have sufficient third party buying and selling interest, and this would be taken into account as part of any liquidity assessment).
14. This means that before being considered for the trading obligation, any class (or sub-class) must not only be subject to the clearing obligation but must be traded on at least one trading venue **and** be considered sufficiently liquid to trade only ‘on venue’.

The Venue Test

15. The determination of whether a class (or sub-class) is admitted to trade could be done in several different ways. Following the US ‘Dodd Frank Act’⁷⁶ for example, the Commodities Futures Trading Commission (CFTC) has set a rule that venues must notify the CFTC when a class of derivatives is ‘made available to trade’ (a designation that invokes the trading obligation). In doing so, venues must make a case that the class is sufficiently liquid to trigger the trading obligation. This notification would then be considered by the CFTC and may be subject to public consultation. If the CFTC concurs with the liquidity assessment, then the trading obligation will apply.
16. ESMA has considered taking a similar ‘venue led’ approach, but has found it to be incompatible with Article 32. However, in assessing whether a class of derivatives was admitted to trade in the EU, ESMA could ask venues to notify ESMA of those classes of derivative which the venue thought were appropriate for the trading obligation. Any decision or analysis under the liquidity test (below) would

⁷⁶ The Dodd-Frank Act passed into law on 21 July 2010. This means that its regulations will, in general, come into effect in advance of the MiFID/MiFIR rules. Title VII of Dodd-Frank requires the mandatory clearing and exchange trading of certain derivatives.

need to be ESMA's and ESMA's alone, and would ultimately be subject to a full consultation, but this could be a way of injecting industry views into the formation of any technical standard.

The Liquidity Test

17. The table below summarises the instances in which ESMA will need to conduct the more complex liquidity test. In essence, the only classes of derivatives ESMA will normally need to consider are those subject to the clearing obligation, minus any which are not traded on any venue. Only then must ESMA apply the liquidity test. In the table, this is box 1.
18. It is important to note that some classes (or sub-classes) may move between boxes. For example when an expectation arises that the clearing obligation could be applied, a sub-class may move from box 3 to box 2.

		Clearing obligation for derivatives		
		Clearing obligation exists	Clearing obligation to be expected in near future	No clearing obligation
Trading obligation for derivatives	Traded on a G-20 venue (including MTFs & OTFs in the EU)	1) TRADING OBLIGATION MIGHT APPLY. ESMA to apply liquidity test.	2) TRADING OBLIGATION MIGHT ULTIMATELY APPLY. Under A32.4, ESMA may apply the liquidity test to a class (or sub-class) of derivatives at its own initiative, leading to the Commission calling for proposals for the on-venue trading of those assessed to be sufficiently liquid. Once traded on venue, those classes or sub-classes may become subject to the trading obligation.	3) TRADING OBLIGATION DOES NOT APPLY. OTC trading allowed.
	Not traded on a G-20 venue	4) TRADING OBLIGATION MIGHT ULTIMATELY APPLY AS ABOVE.	5) TRADING OBLIGATION MIGHT ULTIMATELY APPLY AS ABOVE.	6) TRADING OBLIGATION DOES NOT APPLY. OTC trading allowed.

Table 20: Complex liquidity test instances

19. There will however be more complex cases where Article 32(4) of MiFIR, which allows the liquidity test to be applied to non-clearing obligation derivatives by exception, is relevant. This requires ESMA to 'identify and notify to the Commission the classes of derivatives or individual derivative contracts that should be subject to the obligation to trade on [venues] [...] but for which no CCP has yet re-

ceived authorisation' (in the table these are boxes 2 and 5). Box 4 may also, rarely, be of note where a derivative is subject to the clearing obligation but not currently traded on any venue.

20. Having received a notification from ESMA, the Commission may then 'call for proposals' as to how the relevant contracts could be traded on venue; ultimately leading to the consideration of the trading obligation. This means there will be two different procedures related to the trading obligation. The primary procedure and the secondary '32(4)' procedure.
21. The primary procedure will be for ESMA to act whenever a determination is made under the clearing obligation (or following a decision under the secondary procedure). Where a decision is relatively obvious (e.g. a very widely traded and highly liquid instrument) it may be that the work required is limited. But in general ESMA will check if the derivative is admitted to trading and then run through the other liquidity criteria. All criteria must be satisfied for the trading obligation to apply and some measures will require an element of judgement.
22. ESMA will need to be sure that the trading obligation is only applied to derivatives that will continue to be liquid and the consultation process mandated by MiFIR for this assessment should enable market participants and other stakeholders to assist in effective decision making. Where collecting data for the purposes of the trading obligation, ESMA will first consider the information already collected, including by trade repositories where appropriate.
23. The secondary procedure may in practice have to be triggered by a Member State asking ESMA to consider a class (or sub-class). Significantly, work under the secondary procedure will not be time limited and ESMA will be able to examine any suggestion in detail, on its own merits.
24. This liquidity test will be a stand-alone analysis with its own set of metrics tailored to the question of whether a product is capable of trading solely on multilateral venues. However, it is worth noting that the definition of this liquidity test is very similar to the definition of a 'liquid market' provided for in Article 2(1)(17)(a)⁷⁷ (and discussed in section 3.6 liquid market definition for non-equity financial instruments of this Discussion Paper). Where possible ESMA will align its approach and will draw from the answers given to the questions raised in relation to the "liquid market" definition section. One important difference however, is that for the purposes of the trading obligation ESMA must consider the sub-sets of derivatives that flow from the clearing obligation process. Whilst ESMA can further sub-divide these classes, it cannot take a broader view. Another difference is that ESMA will consider each decision in isolation and consult according, so will not need to set fixed thresholds in the same way.

Other Criteria

25. To satisfy the criteria in the final paragraph of Article 32(3) of MiFIR, ESMA will also need to consider end users, future behaviour, and make any test resilient to changes in the market to the extent that this is feasible. This has a number of implications - for example, when providing information about liquidity ESMA will need to be careful not to rely only on an average figure, but instead to also consider the range of liquidity, as the average could hide significant periods of illiquidity. In ESMA's view, when considering a class (or sub-class) of derivatives for the trading obligation, their liquidity

⁷⁷ That definition is being used in relation to the pre-and post-trade-transparency and quoting obligations of systematic internalisers for non-equity instruments.

over their lifecycle will need to be considered. Again, this assessment will vary by sub-class of derivative and will require ESMA to study the past history of each instrument. There may also be a need to forecast liquidity and in ESMA's view this would best be achieved through our public consultation and the input of market participants.

26. With regard to the requirement under Article 32 of MiFIR to determine whether or not a sub-class of derivatives is only liquid in transactions below a certain size, ESMA is conscious of the need to align the methodology of any assessment with that for the large in scale waiver and describe any threshold in similar terms. This does not mean they will necessarily be identical and indeed this assessment will by definition need to be made on a case by case basis. In practice, ESMA expects to first run a liquidity assessment on a whole class and only seek to use this additional criterion where necessary.

Market Changes

27. While ESMA recognises a desire for the trading obligation process to be dynamic and capable of dealing with changes in the market and therefore in liquidity, its powers are limited in this respect with the main empowerment being at Article 32(5) of MiFIR.
28. This requirement to submit new draft RTS could take some time due to the processes and deadlines inherent in the EU law-making process. This might lead to a *de facto* ban on trading in an instrument if it was no longer capable of trading on venues, but was required to do so by the trading obligation. ESMA is also conscious of the risks were the list of contracts subject to the clearing obligation and the trading obligation list to be misaligned. ESMA will therefore take care to update the two lists concurrently, and will usually remove contracts from the trading obligation list when they are removed from the clearing obligation list.
29. ESMA will seek to ensure that the trading obligation is only applied to derivatives that it could reasonably expect to remain liquid on the basis of the available evidence. In cases where trading on venue is already widespread, this judgement may be simple to make, but any such judgment must recognise that the liquidity of a derivative can vary significantly according to market conditions and its life cycle. The views of market participants will therefore be very important.

Q170: Do you agree with the proposed criteria based anti-avoidance procedure?

Q171: Do you think it would be reasonable for ESMA to consult venues with regard to which classes of derivatives contracts are traded on venue? Do you think venues would be well placed to undertake this task?

Q172: The discussion in section 3.6 on the liquid market for non-equity instruments around 'average frequency', 'average size', 'number and type of active market participants' and average size of spreads is also relevant to this chapter and we would welcome respondent's views on any differences in how the trading obligation procedure should approach the following:

- i. **Whether 'average frequency' should be understood to refer to the number of trades over a given time period, the number of days on which trading occurred over that time period or both.**
- ii. **The extent to which the given time period will need to vary by asset class.**

iii. Whether the ‘average size’ should be based on the notional and the number of trades in the given period, the notional and the number of trading days, or some other measure.

iv. The most appropriate data for calculating ‘spreads’.

Q173: Do you have a view on how ESMA should approach data gathering about a product’s life cycle, and how a dynamic calibration across that life cycle might work? How frequently should ESMA revisit its assumptions? What factors might lead the reduction of the liquidity of a contract currently traded on venue? Are you able to share with ESMA any analysis related to product lifecycles?

Q174: Do you have any suggestions on how ESMA should consider the anticipated effects of the trading obligation on end users and on future market behaviour?

Q175: Do you have any other comments on our overall approach?

3.12. Transparency Requirements for the Members of ESCB

Background/Mandate/Empowerment

1. Article 1(6) of MiFIR exempts regulated markets, market operators and investment firms from transparency requirements in respect of transactions where the counterparty is a member of the European System of Central Banks (ESCB)⁷⁸ and where the transaction is carried out for the purpose of monetary, foreign exchange and financial stability policy. Article 1 paragraph 8 clarifies that the exemption shall not apply to transactions carried out by the members of the ESCB in the performance of their investment operations.
2. MiFIR empowers ESMA to develop, in close collaboration with the ESCB, draft RTS specifying the monetary policy operations and other tasks in the public interest of each member of the ESCB and the type of transactions to which the exemption applies.
3. MiFIR also empowers the Commission to adopt delegated acts to extend the scope of the exemption from transparency requirements in relation of transactions carried out by central banks that are not members of the ESCB. ESMA stands ready to provide technical advice to the Commission on the extension of the exemption to other central banks.
4. The following extract from Article 1 of MiFIR is relevant for designing implementing measures:

Article 1, MiFIR

[...]

6. *Articles 8, 10, 18 and 21 shall not apply to regulated markets, market operators and investment firms in respect of a transaction where the counterparty is a member of the European System of Central Banks (ESCB) and where that transaction is entered into in performance of monetary, foreign exchange and financial stability policy which that member of the ESCB is legally empowered to pursue and where that member has given prior notification to its counterparty that the transaction is exempt.*

7. *Paragraph 6 shall not apply in respect of transactions entered into by any member of the ESCB members in performance of their investment operations.*

8. *ESMA shall, in close cooperation with the ESCB, develop draft regulatory technical standards to specify the monetary foreign exchange and financial stability policy operations and the types of transactions to which paragraphs 6 and 7 apply.*

ESMA shall submit those draft regulatory technical standards to the Commission by*

Power is delegated to the Commission to adopt the regulatory technical standards referred to in the first subparagraph in accordance with the procedure laid down in Articles 10 to 14 of Regulation (EU) No 1095/2010.

⁷⁸ The ESCB comprises the ECB and the national central banks of all EU Member States whether they have adopted the euro or not.

9. *The Commission shall be empowered to adopt delegated acts in accordance with Article 50 to extend the scope of paragraph 6 to other central banks.*

Analysis and proposal

5. ESMA understands that the purpose of the exemption is to ensure that members of the ESCB can carry out their monetary, foreign exchange and financial stability policy operations without those policy operations being within the transparency requirements set by MiFIR. The issue arises because while the members of the ESCB are excluded from transparency provisions in MiFIR, investment firms that are counterparties to transactions with a member of the ESCB are not. ESMA understands that the disclosure to the market of those policy operations may impair the proper implementation of those tasks that have been conferred upon them in the interest of the public.
6. Article 1(8) requires ESMA to draft RTS with respect to the types of transactions carried out in the performance of monetary policy operations and other tasks which are caught by the exemption from the transparency requirements.
7. ESMA is of the view that the exemption only applies:
 - i. when a member of the ESCB is carrying out monetary, foreign exchange and financial stability policy operations; and
 - ii. in relation to transactions covered by Articles 8, 10, 18 and 21 of MiFIR i.e. transactions in non-equity instruments⁷⁹ when the member of the ESCB has given prior notification to that counterparty that the transaction is exempt.
8. ESMA is required to draft RTS to specify monetary, foreign exchange and financial stability policy operations and the types of transactions which are within the scope of the exemption.

Operations carried out for the purpose of monetary, foreign exchange and financial stability policy

9. As regard to the first point, ESMA is of the view that what distinguishes monetary, foreign exchange and financial stability policy operations from investment management operations is the purpose for which a member of the ESCB buys or sells a financial instrument rather than the types of financial instruments involved or the economic effects on market participants.
10. ESMA is of the opinion that all operations where a member of the ESCB is transacting in a non-equity financial instrument should be exempted from pre- and post-trade transparency in accordance with Article 1(6) when the member of the ESCB is acting in its capacity as monetary, foreign exchange and financial stability authorities, i.e. when the transaction is carried out in respect of the performance of monetary and foreign exchange policy and the safeguarding of stability of the financial system.

⁷⁹ Bonds, structured finance products, derivatives and emission allowances.

Q176: Do you agree that the above identifies the types of operations that can be undertaken by a member of the ESCB for the purpose of monetary, foreign exchange and financial stability policy and that are within the MiFID scope? Please give reasons to support your answer.

Types of transactions

11. As previously noticed, for the exemption to apply Article 1(6) requires that the member of the ESCB provides prior notification to the counterparty subject to transparency requirements under MiFIR. ESMA is of the view that the requirement to notify the counterparty that the transaction is exempt aims to give legal certainty to investment firms and trading venues in respect of transactions executed for the purpose of monetary, foreign exchange and financial stability policy. Given the particular nature of those operations, only the member of the ESCB would be in the position to clarify whether the transaction is exempt or not. ESMA believes that a statement in legal documentation that particular transactions will be exempt from MiFIR reporting requirements for counterparties should provide the necessary legal clarity⁸⁰.
12. ESMA is exploring whether the requirement to provide prior notification may potentially limit the types of transactions that can in practice benefit from the exemption. ESMA believes that the members of the ESCB should be certainly in the position to comply with the prior notification requirement in respect of bilateral transactions executed outside a trading venue including when the counterparty is a systematic internaliser. Similarly ESMA is of the view that the prior notification requirement may be met in regard to post-trade transparency for transactions executed through the systems operated by a trading venue.
13. However ESMA is interested in views on how the prior notification requirement may in practice apply with respect to pre-trade transparency to transactions carried out on certain trading systems operated by trading venues (e.g. anonymous electronic order books).

Q177: What is your view about the types of transactions for which the member of the ESCB would be able to provide prior notification that the transaction is exempt?

⁸⁰ In the specific case of the Eurosystem, such a statement may in particular take the form of relevant language inserted in the ECB guidelines adopted in the areas of monetary, foreign exchange and financial stability policy, as well as in relevant national transpositions of such guidelines, or in bilateral contractual documentation in the relevant cases. This may be accompanied by relevant technical communications made to the counterparties on the general basis or the transaction-by-transaction basis.

3.13. Article 22, MiFIR: Providing information for the purposes of transparency and other calculations

Background/Mandate/Empowerment

1. MiFIR requires competent authorities and ESMA to perform a significant number of calculations in order to determine whether financial instruments are liquid and the level at which various thresholds, e.g. the ones for the large in scale waiver and the deferred publication regime, are set for such instruments. More specifically, these calculations are for the following purposes:
 - i. determining whether equity, equity-like and non-equity financial instruments have a liquid market;
 - ii. setting the thresholds for pre-trade transparency waivers for equity, equity-like and non-equity financial instruments;
 - iii. setting the thresholds for post-trade transparency deferrals for equity, equity-like and non-equity financial instruments;
 - iv. determining whether an investment firm deals on own account OTC on a systematic, frequent and substantial basis for the purposes of the systematic internaliser definition;
 - v. setting the standard market size applicable to systematic internalisers dealing in equity and equity-like instruments, and the *size specific to the instrument* applicable to systematic internalisers dealing in non-equity instruments; and
 - vi. determining whether derivatives are sufficiently liquid for the purposes of implementing the trading obligation for derivatives.
2. In order to perform the necessary calculations, both NCAs and ESMA must be able to obtain robust data of a high quality for each asset class to which MiFIR applies. ESMA is conscious that in the current environment it will need to collect data from a variety of sources that may not always hold a complete data set for an asset class or even a particular instrument and therefore, ESMA will need to rely on sample calculations to a certain extent for some asset classes. The intention of Article 22 of MiFIR is to improve the availability and quality of data available to regulators following MiFID II implementation so that the classification of financial instruments, according to Level 2 thresholds, and also potential re-calibrations of such Level 2 thresholds, can be calculated on a more informed basis after MiFID II has been in force for a certain period of time. Therefore Article 22 of MiFIR enables regulators to request information from trading venues, APAs and CTPs in the context of carrying out MiFIR calculations.
3. ESMA is empowered to further specify: the content, frequency and formats of such requests; the timeframe within which trading venues, APAs and CTPs must respond to such requests; and the rules applying to the storage of data by trading venues, APAs and CTPs according to the following empowerment in Article 22(3) of MiFIR:

Article 22, MiFIR: Providing information for the purposes of transparency and other calculation

[...]

3. ESMA shall develop draft regulatory technical standards to specify the content and frequency of data requests and the formats and the timeframe in which trading venues, APAs and CTPs shall respond to such requests in accordance with paragraph 1 and the type of data that must be stored and the minimum period of time trading venues, APAs and CTPs shall store data in order to be able to respond to such requests in accordance with paragraph 2.

Analysis and proposal

Content of Data Requests

4. The content of data requests under Article 22 of MiFIR will depend, to a large extent, on the methodologies ESMA will use, to be agreed during the course of the Level 2 process, for determining the various thresholds. Therefore this part of the Discussion Paper must be read in the context of the initial considerations by ESMA set out in the relevant sections of the DP and CP on how to determine thresholds for the pre- and post-trade transparency requirements for equity, equity-like and non-equity instruments.
5. However, the Level 1 text already imposes a number of specific parameters regarding the determination of a liquid market for financial instruments under Article 2(1)(17) of MiFIR (definition of a liquid market) and so data requests to trading venues, APAs and CTPs on the non-equity side will entail the number of transactions in instruments over a specified period of time, the volume executed, the number and type of market participants active and the size of spreads. The same criteria also apply to the determination of whether an instrument is sufficiently liquid for the purposes of the trading obligation for derivatives.
6. ESMA understands that the number of market participants need to be counted on the basis of the direct market participants/trading members active in a particular financial instrument. ESMA would like to take this paper as an opportunity to seek views on how best to collect information in that respect.
7. In addition, regulators will also seek information on the free float of equity and equity-like instruments in accordance with Article 2(1)(17)(b) of MiFIR.
8. NCAs will adjust the content of requests based on the type of entity with which the NCAs are dealing and the information it may hold based on its role in the market (e.g. the size of spreads may be an item of information which trading venues are more likely to be able to deliver).

Q178: Do you have any comments on the content of requests as outlined above?

Q179: Do you have proposals on how NCAs could collect specific information on the number and type of market participants in a product?

Frequency of Data Requests

9. ESMA is currently working on the assumption that for equity and equity-like instruments the recalculation and reclassification of instruments based on their liquidity will be conducted on an annual basis as is the case today under MiFID I. As a consequence, data requests would also be made to trading venues, APAs and CTPs annually. ESMA is mindful of the fact that such requests are made sufficiently

in advance of the date on which the reclassifications of instruments would take legal effect in order to provide regulators with time to perform the calculations and the market to adapt their systems to the resulting classification changes. ESMA's preliminary view is that making data requests four months in advance of the reclassifications taking legal effect will provide sufficient time for both regulators and markets.

10. For non-equity instruments, ESMA considers recalculations and the accompanying reclassifications of instruments based on their liquidity may be required on a more frequent basis than for equity instruments. Accordingly, data requests for non-equity instruments would be conducted on a more frequent basis bearing in mind that this depends to a large extent on whether a COFIA or IBIA approach is applied to non-equity instruments.
11. In any case, ESMA also reserves the right to make ad-hoc requests on a per financial instrument basis particularly for setting up or re-setting the thresholds categorising a class as liquid or for newly issued instruments. For example, it may be necessary to recalculate and reclassify a new instrument, based on its liquidity profile, shortly after its issuance.

Q180: Do you consider the frequency of data requests proposed as appropriate?

Q181: How often should data be requested in respect of newly issued instruments in order to classify them correctly based on their actual liquidity?

Formats of Data Requests

12. ESMA will require trading venues, APAs and CTPs to deliver the requested data in a format that is commonly used in the market. In doing so, ESMA's intention is to minimise the IT investment costs trading venues, APAs and CTPs may incur in meeting this obligation.
13. ESMA intends to develop templates for making data requests in due course upon implementation of MiFID II. Such templates should make it easier and more cost efficient for trading venues, APAs and CTPs to respond to requests and should help in automating – to the extent possible – any future reclassifications of financial instruments and any recalibrations of thresholds.
14. ESMA considers that such templates must be sufficiently adaptable so that they can incorporate any changes considered necessary at a later stage in a pragmatic fashion. Therefore ESMA does not propose integrating any templates into the technical standard given that any changes to technical standards require a significant period of time.

Q182: What is your view of ESMA's initial assessment of the format of data requests and do you have any proposals for making requests cost-efficient and useful for all parties involved?

Timeframe to Respond to Data Requests

15. ESMA considers setting a period of a maximum of two weeks for trading venues, APAs and CTPs to respond to data requests.
16. ESMA expects that automated processes can be developed over time which would make much shorter response times possible but that initially, the period of two weeks is workable for regulators, who

must perform the transparency calculations, and trading venues, APAs and CTPs who need to deliver the data.

Q183: Do you consider a maximum period of two weeks appropriate for responding to data requests?

Type of Data to be Stored

17. Trading venues, APAs and CTPs will be required to store the type of data which meets the content of data requests described above. Therefore, and as noted above, the type of data will depend on the methodologies agreed upon at Level 2 for determining thresholds. ESMA refers to its deliberations under the 'Content of Data Requests' heading.

Minimum Period for Storage

18. As the annual calculations ESMA proposes for equity and equity-like instruments are the maximum timeframe proposed in this paper, ESMA does not consider it necessary to follow the record keeping rules for investment firms and require trading venues, APAs and CTPs to store data for five years.
19. Taking into account however that at times consistency checks may be necessary, leading to additional requests to identify and remove erroneous data, ESMA considers a period of two years as appropriate.

Q184: Do you consider a storage time for relevant data of two years appropriate?

4. Microstructural issues

4.1. Microstructural issues: common elements for Articles 17, 48 and 49 MiFID II

Definitions and introductory elements

1. As an overarching point, ESMA intends to base its advice on the existing ESMA Guidelines on Systems and Controls in an Automated Trading Environment⁸¹ (hereafter ‘ESMA Guidelines’), published in February 2012, which already provide a useful framework to build on, also considering the efforts made by the industry to implement the systems and controls there outlined.
2. ESMA is particularly concerned about those elements which may not be covered in the ESMA Guidelines or require review.

Q185: Is there any element that has not been considered and/or needs to be further clarified in the ESMA Guidelines that should be addressed in the RTS relating to Articles 17, 48 and 49 of MiFID II?

3. Please note that all the references made in this part of the text to national competent authority (NCA) should be considered to be a reference to the authority of the Home Member State of the trading venue unless expressly indicated otherwise.

Definition of “trading systems”

Analysis

4. Recitals 63 and 64 of MiFID II clarify that the mitigation of the risks arising from the use of technology in trading is a burden shared between firms who engage in algorithmic trading and operators of trading venues accessed by those firms.
5. MiFID II picks up the requirements set out in Articles 13 and 39 of MiFID I and takes them a step further by imposing an additional set of requirements for investment firms engaged in algorithmic trading and for trading venue permitting algorithmic trading through this system.
6. Algorithmic trading can only take place through trading systems. However, neither MiFID II nor the ESMA Guidelines clarify what should be considered as a ‘trading system’ for investment firms or for trading venues.
7. Given the wide variety of trading models in Europe and different degrees of automation, it seems appropriate to narrow down the scope of ESMA’s proposals so as to avoid confusion in relation to the elements that would be captured by future technical standards.

Proposal

⁸¹ http://www.esma.europa.eu/system/files/esma_2012_122_en.pdf

8. ESMA's preliminary view is that for the purposes of Article 17, 48 and 49 of MiFID II "trading system" should be defined as the hardware, software and associated communication lines used by:
 - i. trading venues;
 - ii. members or participants of trading venues including those falling under Article 1(5) of MIFID II to perform their activity; and
 - iii. any type of execution systems or order management systems operated by trading venues or investment firms, including matching algorithms.

Trading venues

9. For trading venues, ESMA considers that the term 'trading system' should encompass the following elements:
 - i. upstream [connectivity, order entry capacity, throttling capacities and ability to balance customer order entrance through different gateways so as to avoid collapses];
 - ii. trading engine [ability to match orders at an adequate latency];
 - iii. downstream [connectivity, order and transaction edit and any other type of market data feed]; and
 - iv. infrastructure to monitor the performance of the above mentioned elements.
10. It is important to determine the trading venues to which these requirements would apply. Taking the trading models that appear in Article 17 of MiFID I Implementing Regulation as a starting point, ESMA can differentiate the following systems:
 - i. continuous auction order book trading system;
 - ii. quote-driven trading system; and
 - iii. periodic auction trading system.
11. In ESMA's preliminary view, algorithmic trading is mostly relevant for *continuous auction order book* systems and *quote-driven trading systems*. Other systems such as request-for-quote or voice trading should not be considered within the scope of this specific piece of regulation.
12. With regard to *hybrid systems*, defined by Article 17(5) of MiFID I Implementing Regulation, ESMA would like to obtain views on their relevance in this respect, e.g. market making activities using algorithmic trading.

Q186: Do you agree with the definition of ‘trading systems’ for trading venues?

Q187: Do you agree that the requirements under Articles 48 and 49 of MiFID II are only relevant for continuous auction order book systems and quote-driven trading systems and not for the other systems mentioned above?

Q188: Which hybrid systems, if any, should be considered within the scope of Articles 48 and 49, and why?

Investment firms

13. For investment firms, ESMA considers as ‘trading systems’ not only the algorithmic technologies to interpret signals from the market and, in response, implement trading strategy that generally involve the high frequency generation of orders and a low latency transmission of these orders to the market, but also those supporting elements without which it would be impossible to implement those techniques. In other words, all internal or external systems where the algorithms are deployed for trading (Recital 61, MiFID II).
14. As an example, regardless of ESMA’s preliminary view that the requirements under Articles 48 and 49 are mostly relevant for trading venues where algorithmic trading should take place (i.e. continuous auction order book and quote-driven systems), the requirements under Article 17(1) MiFID II would still apply to investment firms using their algorithms also to trade on periodic auction trading systems or on request-for-quote systems.

Q189: Do you agree with the definition of “trading system” for investment firms?

‘Real time’ and ‘t+1’ in relation to market monitoring of algorithmic trading activity by investment firms

Analysis

15. ESMA considers that the monitoring of algorithmic order entry and order execution will be ex-post (in the sense that such monitoring relates to observing events that have already happened). In operational terms, the ex-post nature of monitoring means that there will be a time delay between the original event (the submission, acknowledgment, modification, cancellation, rejection, or execution of an order) and the observation of surveillance outputs (alerts) in relation to that same event.
16. For the sake of clarity, ESMA applies a twofold concept regarding what constitutes an appropriate time delay in relation to market monitoring of algorithmic trading activity: either this time delay needs to be optimally minimised (‘real time’), or this delay can be longer, but no more than the time between the moment of market close on the previous day and market opening on the next.
17. ESMA considers that an optimal minimisation of time delays (real time monitoring) is necessary where the purpose of the monitoring is the firm’s own risk management, or to safeguard the orderly functioning of the market. The firm should be able to observe with optimally minimised delay any trading behaviour that may pose a threat to the firm’s own risk management or to the orderly functioning of the markets, and should be able to correct such trading behaviour while it is still occurring, minimising the damage to either the firm itself or to the markets to which the firm is submitting its orders.

18. In practical terms, and given the state of technology at the time of adoption of these RTS, such real time monitoring should take place with a time delay of no more than 5 seconds, and less where it is appropriate to the scale, nature, or complexity of the algorithmic trading activity taking place via the firm's systems, or where up-to-date technology allows further minimisation of the time delays going forward.
19. ESMA considers that for the purpose of the monitoring of market abuse (in particular market manipulation) real time monitoring is not feasible. However, in order to facilitate a timely and effective follow-up to monitoring alerts regarding potential market abuse or manipulation, such alerts regarding order events (entry, modification, cancellation, execution) of the previous day should be generated no later than at the start (market opening) of the next day.

Proposal

20. **'Real time'** in relation to the monitoring of algorithmic order entry and execution means an optimally minimised delay between (i) the moment at which an order is submitted, acknowledged, modified, canceled, rejected, or executed, and (ii) the generation of surveillance outputs (alerts) by the monitoring system in relation to the same order such that, where necessary, immediate action can be taken regarding ongoing trading behaviour which is associated with this order. Real time monitoring should take place with a time delay of no more than 5 seconds.
21. **'t+1'** in relation to the monitoring of algorithmic order entry and execution means a delay, such that all surveillance outputs (alerts) by the monitoring system in relation to orders that have been submitted, acknowledged, modified, canceled, rejected, or executed on the previous trading day (until market close) are available for analysis at the start of the next day (before market opening), i.e., are computed overnight.

Q190: Do you agree with the definition of 'real time' in relation to market monitoring of algorithmic trading activity by investment firms?

Q191: Is the requirement that real time monitoring should take place with a delay of maximum 5 seconds appropriate for the risks inherent to algorithmic trading and from an operational perspective? Should the time frame be longer or shorter? Please state your reasons.

Q192: Do you agree with the definition of 't+1' in relation to market monitoring of algorithmic trading activity by investment firms?

Parameters to be considered in relation to the concepts of 'severe market stress' and 'disorderly trading conditions' for the purposes of Articles 17 and 48

Analysis

22. Article 48 MiFID II makes reference to two related yet different concepts that are mentioned across MiFID II:
 - i. 'Conditions of market stress' Article 48(1); and
 - ii. Disorderly trading conditions (Article 48(6), but also, for example, in Article 31(1)).

23. In ESMA's preliminary view, 'market stress' means the conditions that might compromise the performance of trading systems of a trading venue, i.e. the ability of a trading venue to process and match orders and make prices available to market participants. Therefore, 'market stress', 'conditions of market stress' or 'extreme market conditions' only make reference to the number of messages that the trading venues have to process at a point in time.
24. 'Disorderly trading conditions' would encompass events in terms of price, volume or number of messages that might have an impact on the market as a whole, not only in one specific trading venue.

Proposal

25. ESMA considers it relevant to clarify the parameters that should be considered by trading venues and investment firms when determining whether their systems and controls are sufficient in the specific circumstances mentioned in Articles 17 and 48 of MiFID II.
26. '**Severe market stress**' refers to conditions that might compromise the performance of the trading systems of a trading venue, i.e. the situation where the ability of a trading venue to process and match orders and make prices available to market participants is compromised. ESMA's preliminary view is that 'severe market stress' takes place in cases where there is an increase in the number of messages being sent to and received from the systems of one trading venue causing a risk to the systems' performance.
27. '**Disorderly trading conditions**' refers to a market where the maintenance of a fair, orderly and transparent execution of trades is compromised.
28. The situations described below could be considered as indicators of 'disorderly trading conditions':
 - i. significant short-term changes in terms of market volume; and/or
 - ii. significant short-term changes in terms of price (volatility); and/or
 - iii. significant short-term increase in the number of messages to and received from the different trading venues.

Q193: Do you agree with the parameters to be considered to define situations of 'severe market stress' and 'disorderly trading conditions'?

Organisational requirements for trading venues and the proportionality principle

Background/Mandate/Empowerment

Article 48(12), MiFID II

ESMA shall develop draft regulatory technical standards further specifying:

- (a) the requirements to ensure trading systems of regulated markets are resilient and have adequate capacity;

Analysis

29. Article 48 MiFID II determines a number of organisational requirements for trading venues which might be caught by the risks described in Recital 62 [overloading of the systems, duplicative or erroneous orders or malfunctioning that may create disorderly markets].
30. In preparing this DP, ESMA has taken into account two elements:
 - i. The wide range of trading venues (considering as such regulated markets [RMs], multilateral trading facilities [MTFs] and organised trading facilities [OTFs])⁸²; and
 - ii. ESMA Guidelines which were based on the concept that the systems and controls employed in complying with them should take into account the nature, scale and complexity of their business (the proportionality principle).
31. ESMA still considers it relevant to preserve this proportionality principle, but at the same time it is necessary to be as clear as possible in relation to the elements that in all cases should be present in a future regulation.
32. On that basis, ESMA is of the opinion that the organisational requirements described below should constitute a minimum. This is without prejudice to other regulatory requirements on a European level that may apply in addition. In any case, trading venues may decide to go further to achieve the general objectives of MiFID II on the basis of the nature, scale and complexity of their business. Therefore, trading venues should carry out on a regular basis a detailed and robust self-assessment of their activities, which allows them to identify, in operational terms, how they should apply the proportionality principle to their own situation.
33. As a consequence, the proposal below in relation to the organisational requirements should not be considered as a closed-ended one and trading venues and investment firms should be at all times in a position to demonstrate that they have appropriate systems and controls in place to meet the requirements even if it imposes tougher requirements on them.
34. At the same time, it is acknowledged that all the requirements described below might not be applicable to all types of trading. A clear example would be OTFs, where the effective matching of orders by voice could not be captured by the following requirements, as opposed to upstream, matching of orders and downstream if they permit algorithmic trading to their systems.

Proposal

35. ESMA's proposal in relation to the organisational requirements for trading venues captured by the scope of Article 48 of MiFID II aims at setting the minimum requirements that all trading venues should meet in relation to their trading systems linked to algorithmic trading.
36. However, ESMA considers that trading venues should in all cases assess their degree of compliance with Article 48 of MiFID II, taking into account the nature, scale and complexity of their business. Accordingly, they should establish more stringent organisational requirements where appropriate.

⁸² See Article 18(5) of MiFID II.

37. In undertaking this self-assessment, trading venues should take into account at least the elements contained in the following non-exhaustive list.
- i. Nature, in terms of...
 - a. The level of automation of the venue's trading processes (e.g. whether automated trading is permitted or not);
 - b. Types and regulatory status of the instruments traded in the venue (e.g. liquid instruments subject to mandatory trading);
 - c. Types of strategies incentivised by the venue's fee structure (e.g. whether it incentivises latency sensitive strategies); and
 - d. The trading venues' role in the financial system (i.e. if the financial instrument can be traded elsewhere).
 - ii. Scale, in terms of the potential impact of the venue on the fair and orderly functioning of the markets, taking as a reference at least the following elements:
 - a. Number of algorithms/strategies operating in the venue;
 - b. Messaging volumes;
 - c. Volume traded on the venue;
 - d. The percentage of algorithmic trading over the total turnover of the venue;
 - e. The percentage of HFT activity over the total turnover of the venue;
 - f. Number of members and participants;
 - g. Number of members providing DEA access (including, where applicable, specific numbers for Sponsored Access) and whether DEA sub-delegation is permitted through the venue's systems or not;
 - h. Average order to trade ratio (OTR);
 - i. Number of remote members;
 - j. Number of co-location or proximity hosting sites provided;
 - k. Number of firm's physical locations (management team in one place and the servers in other); and
 - l. Number of countries and regions in which the trading venue is undertaking business activity.
 - iii. Complexity, in terms of...
 - a. Classes of instruments traded on the trading venue;

- b. Trading models available in the trading venue (e.g. different trading models operating at the same time such as auction, continuous auction and hybrid systems);
- c. The use of transparency waivers in combination with trading models;
- d. The venue's trading systems (in terms of diversity of trading systems employed, extent of the firm's control over setting, adjusting, testing, and reviewing of its trading systems);
- e. The structure of the trading venue (in terms of ownership and governance and its organisational, operational, technical, physical, and/or geographical set up);
- f. Diverse locations of the trading venue's connectivity and technology;
- g. Access provided to different CCPs;
- h. Diversity of the venue's physical trading infrastructure;
- i. Level of outsourcing of key functions; and
- j. Frequency of changes (trading models, IT systems, members etc.).

Q194: Do you agree with the above approach?

Q195: Is there any element that should be added to/removed from the periodic self-assessment?

Organisational requirements for investment firms and the proportionality principle

Background/Mandate/Empowerment

Article 17(7)(a), MiFID II

ESMA shall develop draft regulatory technical standards to specify the following:

(a) the details of organisational requirements laid down in paragraphs 1 to 6 to be imposed on investment firms providing different investment services and/or activities and ancillary services or combinations thereof...

Analysis

- 38. Article 17 MiFID II determines a number of organisational requirements for investment firms which might be caught by the risks described in Recital 62 regarding the overloading of the systems, duplicative or erroneous orders or malfunctioning that may create disorderly markets. In preparing this advice, and in line with Recital 63 of MiFID II, ESMA used the ESMA Guidelines as a basis.
- 39. The ESMA Guidelines were based on the concept that the systems and controls of investment firms covered by the Guidelines should take into account the nature, scale and complexity of their business ('the proportionality principle').

40. In that regard, an important consideration of ESMA in preparing its preliminary view is the wide range of investment firms that would be captured by a future regulation. ESMA recognises that the risks stemming from algorithmic trading activities (for firms themselves and/or for the fair and orderly functioning of the markets) are not homogeneous across all firms.
41. Given the diverse nature of investment firms and their algorithmic trading activities, ESMA considers it relevant to preserve the proportionality principle established in the original ESMA Guidelines, which allows market participants to fine-tune these arrangements according to the '*nature, scale and complexity of their business*'.
42. At the same time, ESMA considers it necessary to be as clear as possible in relation to the elements that should be present in a future regulation. On that basis, ESMA is of the opinion that the organisational requirements described below should constitute a minimum. This is without prejudice to other regulatory requirements derived from legislation on a European level such as prudential requirements in CRD IV or requirements for IT security that may be applied in addition. In any case, investment firms may decide to go further to achieve the general objectives of MiFID II on the basis of the nature, scale and complexity of their business.
43. In practice, this means that whilst all investment firms who engage in algorithmic trading should comply with these RTS and the requirements contained in them, there may be differences amongst the means used by firms in cases where these RTS contain requirements based on the proportionality principle.
44. In order to take into practice the proportionality principle, ESMA considers that investment firms should carry out on a regular basis a detailed and robust self-assessment of their activities, which allows firms to identify in operational terms how they should apply the relevant proportionality principle to their own situation. This means that for each individual requirement which contains a proportional element, firms should assess what is the right operational approach. Investment firms remain at all times responsible for adequately undertaking this self-assessment.

Proposal

45. ESMA's proposal in relation to the organisational requirements for investment firms captured by the scope of Article 17 of MiFID II aims at setting the minimum requirements that all investment firms should meet in relation to their trading systems directly or indirectly linked to algorithmic trading.
46. However, ESMA considers that investment firms should in all cases assess their degree of compliance with Article 17 of MiFID II taking into account the proportionality principle regarding the nature, scale and complexity of their business, so as to establish more stringent organisational requirements where appropriate.
47. Investment firms should carry out on a regular basis a detailed and robust self-assessment of their activities, which allows a firm to identify, in operational terms, how it should apply the proportionality principle to its own situation.
48. The self-assessment should be subject to sign-off by the management body and is to be reviewed at least twice yearly (or more frequently where this is warranted). The adequacy of the self-assessment and the operational set-up stemming from it, should be subject to audit by the firm's internal audit function or by an independent third party audit.

49. Investment firms should be at all times in a position to demonstrate to their NCA how, and on the basis of which considerations, they have applied the proportionality principle in practice, and should be able to explain how they ensure compliance with the proportional requirements to which they are subject.
50. In particular, where an investment firm considers that a specific requirement is not, or not fully, applicable to itself, it should at all times be in a position to demonstrate to its NCA why the firm believes the requirement does not correspond to its circumstances.
51. In undertaking a self-assessment for these purposes, investment firms should take into account at least (and where applicable) the elements contained in the following, non-exhaustive, list. When scoring themselves against the elements contained in this list (or against additional elements), investment firms should consider the resultant scores both individually and in relation to each other when assessing the regulatory responsibilities of the firm.
 - i. Nature, in terms of...
 - a. the regulatory status of the firm (and where applicable its DEA users), including the regulatory requirements to which it is subject as an investment firm under MiFID II, and to other regulatory requirements as relevant;
 - b. the firm's roles in the market (e.g. as a market maker, whether it executes orders for clients, or whether it only trades on own account);
 - c. the level of automation of trading and other processes or activities of the firm;
 - d. the types and regulatory status of the instruments, products and asset classes that the firm trades in;
 - e. the types of strategies the firm employs and the risks contained in these for the firm's own risk management and their potential impact on the fair and orderly functioning of the markets (e.g., the nature of these strategies (such as market making or statistical arbitrage) and whether these strategies are long-term, short-term, directional, or non-directional);
 - f. the latency sensitivity of the firm's strategies and trading activities;
 - g. the type and regulatory status of trading venues and other liquidity pools accessed (e.g., lit, dark, OTC);
 - h. the connectivity solutions of the firm (i.e. as a member of trading venues and/or as a DEA client);
 - i. whether the firm allows clients to access trading venues via DEA and/or Sponsored Access and whether sub-delegation of DEA is allowed;
 - j. the extent to which it relies on third parties for the development and maintenance of its algorithms or trading systems (i.e., whether these are self-developed, co-developed with a third party, or purchased from a third party);

- k. the firm's ownership and governance structure (how it is structured organisationally and operationally, and whether it is a partnership, subsidiary, publicly traded company, or otherwise);
 - l. the firm's risk management, compliance, and audit structure and organisation; and
 - m. the maturity of the firm and level of experience and competency of its personnel (i.e., whether it is a start-up or incumbent).
- ii. Scale, in terms of...
- a. number of algorithms/strategies running in parallel;
 - b. number of individual instruments, products, and asset classes traded;
 - c. number of trading desks and individual trading ID's;
 - d. messaging volumes (number of orders submitted, adjusted, canceled, executed);
 - e. monetary value of gross and net positions intraday and overnight;
 - f. number of markets accessed either as a member/participant or via DEA;
 - g. number and size of the firm's (DEA) clients (including, where applicable, specific numbers of Sponsored Access clients);
 - h. number of co-location or proximity hosting sites to which the firm has connectivity;
 - i. throughput size of connectivity infrastructure (gbit/sec);
 - j. number of clearing members or CCP memberships;
 - k. the firm's size in terms of number of traders and front/mid/back office staff employed (fte);
 - l. number of firm's physical locations;
 - m. number of countries and regions in which the firm is undertaking trading activities; and
 - n. the firm's annual earnings and profits.
- iii. Complexity, in terms of...
- a. the firm's algorithms, in terms of coding, the inputs upon which the algorithms are reliant, the algorithms' interdependencies, and/or the rule exceptions contained in the algorithms, or otherwise;
 - b. the firm's trading strategies (e.g. whether these strategies relate to correlated instruments/products in multiple trading venues or other liquidity pools);

- c. the firm's trading systems (in terms of diversity of trading systems employed, extent of the firm's control over setting, adjusting, testing, and reviewing of its trading systems);
- d. the structure of the firm (in terms of ownership and governance and its organisational, operational, technical, physical, or geographical set up);
- e. the diversity the firm's connectivity, technology or clearing solutions;
- f. the diversity of the firm's physical trading infrastructure;
- g. the speed of changes (IT system, strategy, client etc.); and
- h. the level of outsourcing of key functions.

Q196: Would the MiFID II organisational requirements for investment firms undertaking algorithmic trading fit all the types of investment firms you are aware of? Please elaborate.

Q197: Do you agree with the approach described above regarding the application of the proportionality principle by investment firms? Please elaborate.

Q198: Are there any additional elements that for the purpose of clarity should be added to/removed from the non-exhaustive list contained in the RTS? Please elaborate.

4.2. Organisational requirements for investment firms (Article 17 MiFID II)

Testing of trading systems, algorithms, and strategies

Background/Mandate/Empowerment

Article 17 (7)(a), MiFID II

ESMA shall develop draft regulatory technical standards to specify the following:

(a) the details of organisational requirements laid down in paragraphs 1 to 6 to be imposed on investment firms providing different investment services and/or activities and ancillary services or combinations thereof...

1. Article 17(1) of MiFID II determines that “An investment firm that engages in algorithmic trading shall have in place effective systems and risk controls suitable to the business it operates to ensure that its trading systems are resilient and have sufficient capacity, are subject to appropriate trading thresholds and limits and prevent the sending of erroneous orders or the system otherwise functioning in a way that may create or contribute to a disorderly market. Such a firm shall also have in place effective systems and risk controls to ensure the trading systems cannot be used for any purpose that is contrary to Regulation (EU) No .../... or to the rules of a trading venue to which it is connected. The investment firm shall have in place effective business continuity arrangements to deal with any failure of its trading systems and shall ensure its systems are fully tested and properly monitored to ensure they meet the requirements in this paragraph”.

Analysis

2. ESMA considers that the full testing of systems used for algorithmic trading should encompass both initial and ongoing testing of firms’ systems, as well as conformance testing and the implementation of effective change management procedures. Collectively, the objective of this testing should be to ensure that risks to the firm and to the market as a whole are appropriately managed, and to promote fair and orderly trading.
3. The initial testing encompasses the development phase of the relevant systems as well as the initial deployment (roll out) of these systems in a live environment. Ongoing testing encompasses the continual evaluation of the proper functioning of these systems in a production environment. Change management relates to procedures (including testing) that seek to mitigate the risks stemming from any material changes to previously deployed systems.
4. The approach above differs from the original ESMA Guidelines only where it outlines a minimum level of testing which should be evidenced by firms. During the consultation process for the ESMA Guidelines it was indicated by a number of respondents that only profitability was considered when testing the performance of an algorithm or system. Parametrically focused minimum testing requirements have been laid out to help firms in identifying wider performance issues in a wider range of scenarios.

5. Also, it is proposed that each investment firm which is a member or participant in a trading venue should make mandatory use of a non-live trading venue testing environment for the purpose of disorderly trading testing. This requirement sits at the cross-section of the requirement in Article 17(1) of MiFID II for investment firms to ensure that their ‘systems are fully tested’ and the requirement for trading venues in Article 48(6) of MiFID II, to require their “*members or participants to carry out appropriate testing of algorithms and providing environments to facilitate such testing, to ensure that algorithmic trading systems cannot create or contribute to disorderly trading conditions on the market*”.
6. ESMA notes that such non-live testing for the purpose of the prevention of disorderly trading is separate and different from conformance testing between the investment firm and the trading venue.
7. In order to ensure that the specific trading algorithms, systems and strategies are appropriate for the individual market upon which they will be used, ESMA considers that non-live testing should be performed for each individual market that a firm intends to access, i.e. making use of the specific non-live trading venue testing environment for that market.
8. While making use of a trading venue testing environment is mandatory for investment firms that are a member or participant of a given market, investment firms that are not a member or participant, but access the venue by means of DEA, either have to make use of non-live trading venue testing environments themselves or require their DEA provider to conduct the tests on their behalf. Firms may do so where this is appropriate to the nature, scale, and complexity of their business and the risks that their trading algorithms or systems may pose to the orderly trading on the relevant trading venue.
9. In line with the requirement in Article 17(1) of MiFID II, ESMA considers that it is for investment firms themselves to ensure that their systems are fully tested. For that reason they should remain responsible at all times for assessing the testing results and making changes to the algorithm, trading strategy or system as appropriate. In other words: for the prevention of disorderly trading, trading venues do not have to and should not provide any ex-ante sign-off or authorisation of algorithms or strategies that investment firms are testing in a non-live trading venue testing environment or that they intend to take into production on a trading venue.
10. In addition, the change management elements outlined below have been introduced to aid firms in identifying changes which may dictate the need for further testing to be undertaken. ESMA has also expanded on the Guidelines by outlining specific criteria for investment firms to record when a change is implemented. These criteria have been outlined to aid firms in creating an audit trail with respect to any changes implemented. The criteria outlined have been proposed as ESMA considered these would aid the resolution of issues which could arise as a result of a new system being implemented.

Proposal

Initial testing

11. Investment firms should, prior to deploying a trading system or a trading algorithm or strategy and prior to deploying updates, make use of clearly delineated development and testing methodologies. These methodologies should address process design and execution, division of responsibilities, allocation of sufficient resources, escalation procedures, and sign-off by a responsible party within the investment firm.

12. For algorithms and trading strategies these testing methodologies should include performance simulations/back testing, and (at least for members or participants of a trading venue) non-live testing within a trading venue testing environment. The use of these methodologies should seek to ensure that, amongst other things⁸³, the operation of the trading system or trading algorithm is compatible with the investment firm's regulatory obligations as well as the rules of the trading venues they use, that compliance and risk management controls embedded in the system or algorithm work as intended (including generating error reports automatically), and that the trading system or algorithm does not contribute to disorderly trading, and can continue to work effectively in stressed market conditions. Working effectively in stressed market conditions may imply (but not necessarily) that the system or algorithm switches off under those conditions.
13. Investment firms should adapt trading algorithm tests (including non-live tests within trading venue testing environments) to the strategy the firm will use the algorithm for (including the markets to which it will submit orders and the structure of these markets). The investment firm should also ensure these tests are commensurate with the risks that this strategy may pose to itself and to the fair and orderly functioning of the markets⁸⁴ operated by the trading venues to which the firm intends the algorithm to submit orders. Investment firms should undertake further testing if the markets in which the algorithm is to be used change from those originally intended.

Testing within a trading venue testing environment⁸⁵

14. For the purpose of disorderly trading testing, investment firms which are members or participants of a trading venue should test their trading strategies and algorithms in the specific non-live trading venue testing environment for each market that they intend to access.
15. Investment firms that are not accessing a trading venue as a member or participant, but as a user by means of DEA, may make use of such non-live trading venue testing environments where this is appropriate to the nature, scale, and complexity of their business and the risks that their trading algorithms or systems may pose to the orderly trading on the relevant trading venue.
16. When making use of a non-live trading venue testing environment, the investment firm will remain responsible at all times for assessing the testing results and making changes to the algorithm, trading strategy or system as appropriate.

Controlled roll-out of algorithms

17. Investment firms should roll out the deployment of trading algorithms in a live environment in a controlled and cautious fashion with limits being placed on the number of financial instruments being traded, the price, value and number of orders, the strategy positions and the number of markets to which orders are sent to enable the firm to check that an algorithm performs as expected in a live environment and to make changes if it does not.

Conformance testing

⁸³ Please see the section "Testing the capacity of members or participants to access trading systems".

⁸⁴ Please see the reference to "Testing of members' or participants' algorithms to avoid disorderly trading conditions".

⁸⁵ Please see as well the section "Relationship between fee structures and testing obligation for trading venues" in the Fee structures section.

18. An investment firm or DEA user should pass conformance testing with its DEA provider where it accesses the market via DEA and/or with the trading venue where it is a direct member or participant. Such conformance testing should take place when implementing a new market access system or when a trading venue operator deems it necessary because of a fundamental change in venue functionality. The onus is on the investment firm to determine when it must recertify due to a change in logic within the system.
19. Results of this conformance test have to be taken into consideration when conducting the risk inventory and the self-assessment.
20. Results of this conformance test have to be taken into consideration in the business continuity concept.

Ongoing testing

21. An investment firm should ensure by way of periodic testing, that its systems, procedures and controls are capable of withstanding significant and extraordinary market pressures or external events, including but not limited to, high volumes of data or order traffic, venue systems throttling or short-term business continuity / disaster recovery events. This should not be less than twice yearly, and more frequently as may be warranted. The testing should be appropriate to the nature of the trading activity that the investment firm carries out, and shall at least consist of:
 - i. Initiating, running and stopping a large number of algorithms in parallel, and at least as many algorithms as the firm used on its most active day of trading over the previous 6 month period. High volume tests using at least twice the highest volume of trading by the firm over the previous 6 month period.
 - ii. Any changes to the production environment should be subject to review and sign-off by a responsible party within the investment firm. The depth of the review should be appropriate to the magnitude of the proposed change. This review should also establish whether further testing is needed, and what type of testing should be carried out.

Sign-off and review procedures in relation to change management and testing

22. Investment firms should ensure that the production and testing environments are kept segregated at all times. Any changes to the production environment should be subject to review and sign-off by a responsible party within the investment firm. The depth of the review should be appropriate to the magnitude of the proposed change. This review should also establish whether further testing is needed, and what type of testing should be carried out.
23. Investment firms should establish procedures for communicating requirements, changes and functionality related to its systems. The investment firm should also keep records of any material changes made to their proprietary software, allowing them to accurately determine:
 - i. when a change was made;
 - ii. who made the change;
 - iii. who approved the change; and,

iv. the nature of the change.

Q199: Do you agree with a restricted deployment of algorithms in a live environment? Please elaborate

Q200: Do you agree with the parameters outlined for initial restriction? Please elaborate.

Q201: Do you agree with the proposed testing scenarios outlined above? Would you propose any alternative or additional testing scenarios? Please elaborate.

Q202: Do you agree with ESMA's approach regarding the conditions under which investment firms should make use of non-live trading venue testing environments? Please elaborate.

Q203: Do you consider that ESMA should specify more in detail what should be the minimum functionality or the types of testing that should be carried out in non-live trading venue testing environments, and if so, which?

Q204: Do you consider that the requirements around change management are appropriately laid down, especially with regard to testing? Please elaborate.

Monitoring and review of trading systems and algorithms

Background/Mandate/Empowerment

Article 17(7)(a), MiFID II

ESMA shall develop draft regulatory technical standards to specify the following:

(a) the details of organisational requirements laid down in paragraphs 1 to 6 to be imposed on investment firms providing different investment services and/or activities and ancillary services or combinations thereof...

24. Article 17(1) of MiFID II determines that "An investment firm that engages in algorithmic trading shall have in place effective systems and risk controls suitable to the business it operates to ensure that its trading systems are resilient and have sufficient capacity, are subject to appropriate trading thresholds and limits and prevent the sending of erroneous orders or the system otherwise functioning in a way that may create or contribute to a disorderly market. Such a firm shall also have in place effective systems and risk controls to ensure the trading systems cannot be used for any purpose that is contrary to Regulation (EU) No .../...* or to the rules of a trading venue to which it is connected".

Analysis

25. ESMA's advice in this respect replicates the arguments made in its Consultation Paper to the Guidelines⁸⁶. However, ESMA has provided more clarity as to several elements that it considers relevant in relation to effective monitoring and review of trading systems and algorithms.
26. These elements include the requirement for firms to have a "kill button" that allows firms to immediately pull all outstanding orders from the market. Given the risks to which algorithmic trading firms are exposed, in particular in situations where an algorithm is not behaving as expected, ESMA considers that effective "kill button" procedures are essential for ensuring adequate risk management and safeguarding of the orderly functioning of the market.
27. Furthermore, ESMA has specified the need for firms to reconcile their own trade tape with drop copies received from their relevant business partners. This will allow firms to spot any inconsistencies between their perceived and their actual trading behaviour and risk exposures in a timely manner, which is important as such inconsistencies may indicate that the firm's trading activity is based on inaccurate information regarding its market and client risk exposures.
28. ESMA has also provided greater specification regarding the communication procedures between firms, and their competent authorities and trading venues, so as to facilitate any communication that may be necessary for the purpose of safeguarding fair and orderly trading and to help firms resolve problems effectively.
29. Finally, ESMA has set out more specifically the timeliness, frequency, and level of independence with which trading systems and algorithms need to be monitored, reviewed, and evaluated. ESMA considers that this will provide firms with greater clarity as to the expectations, as well as ensuring that the relevant activities are appropriately monitored and assessed.

Proposal

30. In addition to their pre- and post-trade limit controls, investment firms should have monitoring systems, processes and procedures that are appropriate to the nature, scale, and complexity of their trading activities, and that allow firms to identify as soon as practicable any issues that may negatively affect the fair and orderly functioning of the markets, and that allow them to take appropriate action to address these issues. This includes the ability to immediately cancel all of the firm's outstanding orders at all trading venues to which the firm is connected by means of a "kill button". Additionally, the firm should be able to separately cancel outstanding orders at individual trading venues, or originating from individual traders, trading desks, or, where applicable, clients.
31. In addition, ESMA's preliminary view is that investment firms should flag their algorithms also as an internal risk management tool to be able to identify rogue behaviour of an algorithm and the responsible trader/client and/or trading desk in emergency situations. This should enable them to cut off single trader or individual algorithms without using the kill button for all clients. The flagging of the algorithms should therefore be taken into consideration when establishing the firm's business continuity plan.
32. In the context of their monitoring activities, firms should maintain real time and accurate trade and account information, by reconciling their own electronic trading logs with records (drop copies) pro-

⁸⁶ http://www.esma.europa.eu/system/files/2011_224.pdf

vided by the trading venue to which they submit orders, by their broker or DEA provider, their clearing member or CCP, their data providers, or other relevant business partners, in order (i) to assure that all systems are performing as expected; (ii) to maintain accurate and consistent views of trades and positions; and (iii) for risk management to view the firm's risk exposure independently of the trading system.

33. An investment firm should be able, especially in the case of intra-day trading of derivatives, to calculate the outstanding exposure of the traders and clients in real time at appropriate levels of aggregation.
34. The monitoring systems of investment firms should have real-time alerts that assist staff in identifying when an algorithm is not behaving as expected. When alerts are made a process must be in place to take remedial action including, as necessary, an orderly withdrawal from the market.
35. Investment firms should, during the hours they are sending orders to trading venues, monitor in real time their orders for signs of disorderly trading, including (where the firm engages in such activities) from a cross-market, cross-asset class, or cross-product perspective. This monitoring should be conducted by staff who understand the firm's trading flow and who have the training, experience and tools that enable them to monitor and control the trading systems and troubleshoot and respond to operational and regulatory issues in a timely manner. These staff members should have the authority to take remedial action when necessary, and should be accessible to the firm's home competent authority, and to the trading venues on which the firm is active, as well as (where applicable) to relevant staff at its DEA provider, clearing member, or CCP. The monitoring can be undertaken by an independent risk control function within the firm which cannot be in any circumstances the actual trader in charge of the algorithm.
36. The investment firm should ensure that the staff involved in supporting electronic trading operations have the necessary authorisations with the relevant trading venues, brokers, DEA providers, clearing members, CCPs, data providers, independent service vendors (ISVs), and other relevant business partners to provide the appropriate level of support.
37. The investment firm should have procedures in place to ensure accessibility to its home competent authority and the relevant trading venues. Telephone numbers and email addresses (primary, back-up and escalation) and communication channels should be identified and tested with the aim of ensuring that in an emergency, the correct people with the correct level of authority may reach each other in a timely fashion in order to ensure a fair and orderly market. An out-of-hours procedure should be put in place.
38. Investment firms should manage the operational risks associated with algorithmic trading through adequate governance arrangements, internal controls and internal reporting systems taking account, as appropriate, of CEBS/EBA Guidelines on the Management of Operational Risk in Market-Related Activities⁸⁷.

⁸⁷ <https://www.esma.europa.eu/regulation-and-policy/operational-risk/guidelines-on-the-management-of-operational-risk-in-market-related-activities>

39. Investment firms should regularly review and evaluate their trading systems and trading algorithms, and the associated governance, accountability and sign-off framework and associated business continuity arrangements, at least twice yearly and more frequently as may be warranted.
40. Firms should act on the basis of these reviews and evaluations to remedy deficiencies identified. The review and evaluation process should be independent from the production process (upstream, matching engine and downstream) by the involvement of internal audits, the involvement of any other department whose responsible person is appointed and replaced by senior management or by outsourcing it to third parties. Reviews of the performance of trading algorithms should in equal measure include an assessment of the impact on market integrity and resilience as well as on profit and loss of the strategies the algorithm is deployed for.
41. The investment firm should run a validation process of all systems and algorithms, and establish a validation report for the senior management on the basis of a respective risk assessment of the systems/algorithms, at least twice yearly and more frequently as may be warranted. The risk control function should lead the validation process as well as staff that have relevant technical knowledge. Compliance functions should be made aware of the results of these validation reports.

Q205: Do you agree with the proposed monitoring and review approach? Is a twice yearly review, as a minimum, appropriate?

Q206: To what extent do you agree with the usage of drop copies in the context of monitoring? Which sources of drop copies would be most important?

Security of trading systems and algorithms

Background/Mandate/Empowerment

Article 17(7), MiFID II

ESMA shall develop draft regulatory technical standards to specify the following:

(a) to further specify the details of organisational requirements laid down in paragraphs 1 to 6 to be imposed on investment firms providing different investment services and/or activities and ancillary services or combinations thereof...

42. Article 17(1) determines that “An investment firm that engages in algorithmic trading shall have in place effective systems and risk controls suitable to the business it operates to ensure that its trading systems are resilient and have sufficient capacity, are subject to appropriate trading thresholds and limits and prevent the sending of erroneous orders or the system otherwise functioning in a way that may create or contribute to a disorderly market. Such a firm shall also have in place effective systems and risk controls to ensure the trading systems cannot be used for any purpose that is contrary to Regulation (EU) No .../...* or to the rules of a trading venue to which it is connected”.

Analysis

43. Algorithmic trading depends on information technology. In general, these electronic trading systems are complex and investment firms as well as trading venues are exposed to material IT risk. In this regard, it is of utmost importance that the IT strategy is aligned to the business and risk strategy.

44. ESMA does not envisage a specific IT system but requires that the internal governance reduces the IT risk stemming from the algorithmic trading activities of the investment firm. Central elements of this qualitative risk management are new product processes and access management. Moreover, it is important that investment firms set specific controls regarding the risk of cyber-attacks and conduct penetration tests, in order to avoid losing control over their own systems. If IT systems were procured (off-the-shelf) or developed by a third party in the context of an outsourcing agreement, investment firms need to carefully scrutinise these IT systems. Investment firms remain responsible for the proper functioning of their IT systems in any case and should take into account in their risk management any dependency on external parties. Thus, outsourcing or procurement cannot diminish the responsibilities of investment firms towards the NCAs.

Proposal

45. Investment firms should have an IT environment that at least meets internationally established and recognised standards, including standards concerning IT security management, service management and software development.
46. In particular, this includes having an IT strategy process which ensures that the investment firm develops and implements an IT strategy with defined IT objectives and IT measures that are in line with (i) the business and risk strategy of the firm as well as its operational activities and the risks to which the firm is exposed, (ii) a reliable IT organisation (including IT service, IT production, and IT development), and (iii) effective IT security management.
47. Investment firms should develop and implement IT security measures to ensure the confidentiality, integrity, authenticity, and availability of data, and the reliability and robustness of systems, thus including arrangements that allow the minimisation of the risks of attacks against the information systems as defined under Article 2 of Directive 2013/40/EU of the European parliament and the Council of 12 August 2013.
48. In particular, the firm should set up and maintain measures and arrangements to promptly identify and manage the risks related to any potentially unwarranted:
- i. access to the whole or to any part of an information system;
 - ii. system interferences that seriously hinder or interrupt the functioning of an information system by inputting computer data, by transmitting, damaging, deleting, deteriorating, altering or suppressing such data, or by rendering such data inaccessible;
 - iii. data interferences that delete, damage, deteriorate, alter or suppress computer data on the information system, or render such data inaccessible;
 - iv. interceptions, by technical means, of non-public transmissions of computer data to, from or within an information system, including electromagnetic emissions from an information system carrying such computer data.
49. Investment firms should ensure sound IT service and production processes, including effective identity and access management, change, release and configuration management, incident and problem management, IT continuity management as well as appropriate capacity planning. Access to the trading systems is to be minimised, and IT access is to be protected by monitoring and authentication measures as appropriate (including two factor authentication for critical access rights). Investment

firms have to implement appropriate controls to ensure that the deployed binary codes were actually compiled from the documented source codes.

50. Penetration tests and vulnerability tests are to be performed to safeguard against cyber-attacks.
51. When investment firms outsource or procure any hardware or software supporting their trading activities, firms should ensure that their legal and regulatory requirements, as well as IT security and IT continuity requirements, are met by the vendor, including audit rights for the firm and its competent authority.
52. When outsourcing IT development, investment firms have to make appropriate arrangements to ensure the quality of the delivered software. When procuring software and hardware, the firm should adopt appropriate testing and review measures to assess their security and reliability. The firms should ensure that it receives appropriate documentation regarding the procured hardware and software, which allows the firm to (i) understand their detailed functioning and (ii) satisfy itself that they allow the firm to comply with its regulatory obligations.
53. When procuring software used in trading activities, the firm shall negotiate arrangements with the vendor to ensure that system behaviour and security can be traced and examined on a continuous basis (e.g. by entering into a code escrow agreement with the vendor).
54. The firm shall also set up and maintain arrangements for physical and electronic security that allows the minimisation of any risks related to the unsecure access to the working environment and loss of information confidentiality.
55. The firm shall promptly inform its home competent authority of any relevant breaches in the physical and electronic security measures undertaken. An incident report shall be provided to its home competent authority indicating the nature of the incident, the measures adopted to cope with the emergency situation and the initiatives taken to avoid similar incidents to happen in the future.

Q207: Do you agree with the proposed approach?

Pre-trade controls on order entry

Background/Mandate/Empowerment

Article 17, MiFID II

ESMA shall develop draft regulatory technical standards to specify the following:

(a) to further specify the details of organisational requirements laid down in paragraphs 1 to 6 to be imposed on investment firms providing different investment services and/or activities and ancillary services or combinations thereof;

56. Article 17(1) determines that “An investment firm that engages in algorithmic trading shall have in place effective systems and risk controls suitable to the business it operates to ensure that its trading systems are resilient and have sufficient capacity, are subject to appropriate trading thresholds and limits and prevent the sending of erroneous orders or the system otherwise functioning in a way that may create or contribute to a disorderly market. Such a firm shall also have in place effective systems

and risk controls to ensure the trading systems cannot be used for any purpose that is contrary to Regulation (EU) No .../...* or to the rules of a trading venue to which it is connected”.

Analysis

57. The detailed pre-trade controls described below are new and not in the ESMA Guidelines which did not propose specific pre-trade controls. This list of controls has been proposed to ensure a consistent approach with regard to pre-trade controls across the industry⁸⁸.
58. ESMA considers that each of the controls above can be applied proportionally with consideration to the nature, scale and complexity of a firm's business. The list of proposed pre-trade controls, therefore, would be appropriate to the heterogeneous nature of investment firms undertaking algorithmic trading. ESMA would be interested in hearing whether firms think the proposed list is appropriate and whether they think it should be reduced or expanded.

Proposal

59. Investment firms should have appropriate pre-trade controls on order submission with regard to all kinds of trading, whether on own account or on behalf of clients (including DEA clients). Investment firms' controls will be partly duplicative of those of the trading venues. This helps to reinforce the protections for fair and orderly trading but also allows the investment firm to set its controls more tightly than those of the trading venue in the light of its own risk appetite. However, the controls of investment firms also need to be more extensive to deal with the risks they are exposed to in executing orders on behalf of clients and dealing on own account.
60. Investment firms' order management systems should prevent orders from being sent to trading venues that are outside of pre-determined parameters covering price, volume and repetition⁸⁹ which attempt to stop orders entered in error.
61. Investment firms should establish and enforce pre-trade risk limits that are appropriate for the firm's capital base, clearing arrangements, trading style, experience (which will include, but is not limited to, variables such as length of time since being established and reliance on third party vendors for software), and risk tolerance.
62. The pre-trade risk limits should include as a minimum:
 - i. **Price collars**- firms should automatically block or cancel orders that do not meet set price parameters (differentiated as necessary for different financial instruments), both on an order-by-order basis and over a specified period of time;

⁸⁸

http://www.foa.co.uk/admin/tiny_mce/jscripts/tiny_mce/plugins/filemanager/files/Regulation/Position_Papers/FOA_Guidance_on_Systems_and_Controls_for_Electronic_Trading_Environments_-_Final_-_19092012.pdf

http://www.futuresindustry.org/epta/downloads/EPTA-Market-Integrity-Framework_072012.pdf

⁸⁹ See reference to “Repeated automated execution throttles” below.

- ii. **Maximum order value (fat-finger notional limits)** - firms should prevent orders with uncommonly large order values from entering order books. Limits should be set in notional value with the ability to be set per product;
 - iii. **Maximum order volume** - orders with an uncommonly large order size should be prevented from entering order books. Limits should be set in shares or lots;
 - iv. **Maximum long/short positions** - trading beyond a specified position threshold should be restricted. Limits should be set in units appropriate to the asset class and configured per product and on a per client, group, trader or account basis;
 - v. **Maximum long/short overall strategy position (i.e. potential multi-legged orders liabilities taken as a whole)** - prevents trading beyond a specified position threshold. Limits should be set in units appropriate to the asset class and configured per product and on a per client, group, trader or account basis; and;
 - vi. **Repeated automated execution throttles** - automated trading systems should have functionality in place that monitors the number of times a strategy is filled and then re-enters the market without human intervention. After a configurable number of repeated executions the system should be disabled until a human re-enables it;
 - vii. **Kill buttons** - trading systems should have a manual “kill button” that, when activated, disables the system’s ability to trade and cancels all resting orders at all trading venues to which the firm has been sending orders;
 - viii. **Outbound message rates** - firms should monitor the number of order messages their trading systems send to a trading venue in a given period of time; and
 - ix. **Maximum messages limit** - firms should be able to prevent sending an excessive number of messages to order books.
63. And, where applicable:
- i. **Market maker protections** - High rates of simultaneous trade executions on quotes offered by market makers may significantly increase their market risk. Market makers should therefore be able to validate quotes on underlying instruments before executing trades to prevent this.
64. Investment firms should be able to automatically block or cancel orders from a trader if they are aware that a trader does not have permission to trade a particular financial instrument.
65. Investment firms should be able to automatically block or cancel orders where they risk compromising the firm’s own risk management thresholds. Controls should be applied, where appropriate, to exposures to individual clients or financial instruments or groups of clients or financial instruments, individual traders, trading desks or the investment firm as a whole.
66. Investment firms should have procedures and arrangements for dealing with orders which have been automatically blocked by the firm’s pre-trade controls but which the investment firm wishes to submit. However, there should only be temporary and case-by-case waivers of existing limitations, on an exceptional basis. These procedures and arrangements should ensure both risk management and

compliance staff are aware when controls are being overridden and require the approval of risk management for the overriding of these controls.

67. There might be circumstances in which it is appropriate for pre-trade controls to be overridden in relation to a specific trade or a specific set of trades. This should only happen with the full knowledge and active approval of relevant staff responsible for compliance and risk management.

Q208: Is the proposed list of pre trade controls adequate? Are there any you would add to or remove from the list?

Q209: To what extent do you consider it appropriate to request having all the pre-trade controls in place? In which cases would it not be appropriate? Please elaborate.

Record keeping and co-operation with competent authorities

Background/Empowerment/Mandate

Article 17(7), MiFID II

ESMA shall develop regulatory technical standards to specify the following:

- (a) the content and format of the approved form referred to in the fifth subparagraph of paragraph 2 and the length of time for which such records must be kept by the investment firm*

68. The fifth paragraph of Article 17(2) determines that “An investment firm that engages in a high-frequency algorithmic trading technique shall store in an approved form accurate and time sequenced records of all its placed orders, including cancellations of orders, executed orders and quotations on trading venues and shall make them available to the competent authority upon request.”

Analysis

69. The requirements outlined above are closely aligned to those set out in the ESMA Guidelines. The information required from investment firms has been further defined to ensure that firms follow a consistent approach to record keeping.

Proposal

70. Investment firms should keep, for at least five years, records of their algorithmic trading systems and trading algorithms in relation to the matters referred to below. The records should be sufficiently detailed to enable competent authorities to monitor firms’ compliance with their relevant obligations. This will include at least the following information:

- i. a description of the nature of each decision or execution algorithm⁹⁰. The trading strategy or strategies that each algorithm is deployed to execute (as well as changes to those strategies);
 - ii. allocation of responsibilities regarding development of algos and algorithmic trading (Compliance, IT , risk control)
 - iii. contact details of the person in charge of each algorithm;
 - iv. production date and modification date of each algorithm;
 - v. a designation to identify the algorithm within the investment firm responsible for each investment decision and execution;
 - vi. system properties including the trading parameters and limits to which the system is subject and changes to those parameters and limits;
 - vii. a description of the key compliance and risk controls; and
 - viii. testing methodologies, test results and periodic reviews.
71. ESMA is also considering whether the following data set should be stored for these purposes:
- i. Each parameter set up to calibrate the trading algorithm of the investment firm at any given time. This implies that each modification of any parameter, including modifications of parameters of self-learning algorithms should systematically be stored by the investment firm.
 - ii. Market data messages that the investment firm receives e.g. from trading venues, including dark pools or through data vendors on the basis of which the investment firm's trading algorithms make a decision to submit or not submit an order.
72. Investment firms should inform competent authorities, in line with supervisory arrangements that exist in their home Member State, about any significant risks that may affect the sound management of the technical operations of their trading systems and algorithms and major incidents where those risks crystallise no later than the following day where those circumstances arise.
73. The record keeping requirements also apply to orders coming from algorithms that the investment firms receive from customers in order to execute from its trading system.

Q210: Do you agree with the record keeping approach outlined above?

Q211: In particular, what are your views regarding the storage of the parameters used to calibrate the trading algorithms and the market data messages on which the algorithm's decision is based?

⁹⁰ Please note that this section has to be read in conjunction with the section on the "requirement to maintain records of orders for firms engaging in high-frequency algorithmic trading techniques (Art. 17(7) of MIFID)" in this DP

Organisational requirements for investment firms to prevent market abuse: Monitoring, reporting and review

Background/Mandate/Empowerment

Article 17(7), MiFID II

ESMA shall develop regulatory technical standards to specify the following:

(a) the details of organisational requirements laid down in paragraphs 1 to 6 to be imposed on investment firms providing different investment services and/or activities and ancillary services or combinations thereof;

74. Article 17(1) of MiFID II determines that “An investment firm that engages in algorithmic trading shall have in place effective systems and risk controls suitable to the business it operates to ensure that its trading systems (...) cannot be used for any purpose that is contrary to Regulation (EU) No .../...* or to the rules of a trading venue to which it is connected”.

Analysis

75. The ESMA Guidelines specified several types of potential cases of market manipulation that could be of particular concern when engaging in algorithmic trading activities. These included ping orders, quote stuffing, momentum ignition and layering and spoofing. The reason why the ESMA Guidelines specified these potentially manipulative patterns was that the MAD I framework did not yet take into specific account such patterns that were closely linked to automated trading behaviour. However, the new MAD II and MAR have been updated with specific attention to potentially manipulative behaviour that may be related to algorithmic trading activities. For that reason, and given the nature of the level-1 delegation in Article 17 of MiFID II, ESMA considers that it is sufficient to make a reference to the new requirements under MAD II and MAR for both level 1 and 2.
76. Investment firms engaged in algorithmic trading should have policies and procedures in place to prevent that their algorithmic trading activity gives rise to market abuse (in particular market manipulation). The types of market manipulation that may be of particular concern while undertaking algorithmic trading activities are specified in MAD II and MAR.
77. ESMA’s advice in this respect replicates the arguments made in the Consultation Paper for the Guidelines, but is more specific as to the requirements and capabilities of the surveillance systems that firms use for the purpose of monitoring algorithmic trading activity. Generally, investment firms should have appropriate rules and procedures to prevent, identify and report instances of possible market abuse. Investment firms should therefore have in place proportionate arrangements to monitor orders and transactions with the aim of flagging possible instances of conduct that might involve market manipulation for follow-up investigation. Given the nature of their algorithmic trading activity, this may need to include cross-product, cross-asset class or cross-market monitoring/surveillance. Also, given the dynamic environment in which algorithmic trading firms operate, ESMA considers that these arrangements will need to be the subject of frequent (at least twice yearly) review, taking

into account whether the scope, sophistication, and analytical capabilities of the monitoring system remain appropriate for the nature of the firm's order execution activity (in terms of the strategies that are implemented, the instruments, product classes and volumes that are traded, and the markets that are being accessed).

Proposal

78. Investment firms that engage in algorithmic trading should monitor the activities of individuals/algorithms trading on behalf of the firm and the trading activities of clients, taking account of the orders submitted, modified and cancelled as well as transactions executed. This should involve having adequate, sufficiently scalable systems in place to flag any behaviour likely to give rise to suspicions of market abuse (in particular market manipulation), including activities on a (where the firm engages in such activities) cross-market, cross-asset class, or cross-product basis. The monitoring activity should include, where appropriate, the use of automated alert systems and visualisation tools.
79. The firm's monitoring system should be adaptable to changes in the firm's regulatory obligations and its trading behaviour, including its trading strategy, the type and volume of instruments traded, and the markets accessed. The monitoring system should be subject to regular review (at least twice a year, or more frequently if warranted) in order to assess whether the monitoring system itself and the parameters and filters that it employs are still adequate to the firm's trading behaviour and regulatory obligations.
80. Using a sufficiently detailed level of time granularity, the monitoring system should be able to generate operable alerts on a t+1 basis. The monitoring system should allow for setting or adjusting the scenario and filter parameters in order to minimise false positive and false negative results. In order to facilitate giving follow-up to alerts, the monitoring system should have integrated workflow creation and management capabilities.
81. Investment firms should have arrangements to identify transactions that require a Suspicious Transaction Report (STR) to competent authorities in relation to market abuse (in particular market manipulation) and to submit these reports without delay (if initial enquiries are undertaken, a report should be made as soon as possible if the enquiries fail to generate a satisfactory explanation for the observed behaviour). These arrangements must also cover orders.
82. Firms must implement automated alert systems to flag behaviour likely to trigger suspicion of market manipulation. Such alert systems should be in place for all orders transmitted, including orders that are executed, modified or cancelled. Market data is not necessarily required to flag suspicious trading activity. For this reason, firms should store all orders transmitted (outputs of the trading system). As indicated in the section "Record keeping and co-operation with competent authorities", ESMA is keen to get the views of market participants on whether it would be necessary to retain market data (inputs to the trading system), or whether the firm may just retrieve the relevant market data when necessary for its own surveillance purposes or in order to comply with information requests from its NCA.
83. Staff responsible for monitoring the operation of the trading system should report any trading not compliant with their firm's policies and procedures to the individual(s) responsible for such compliance.

84. Firms should maintain accurate, complete, and consistent trade and account information by reconciling their own electronic trading logs with records provided by their brokers, clearing members, CCP, data providers, or other relevant business partners as soon as practicable.
85. If an investment firm uses DEA it must report to its DEA provider the name of the client and/or trader who is responsible for the order.

Q212: Do you consider that the requirements regarding the scope, capabilities, and flexibility of the monitoring system are appropriate?

Q213: Trade reconciliation – should a more prescriptive deadline be set for reconciling trade and account information?

Q214: Periodic reviews – would a minimum requirement of undertaking reviews on a half-yearly basis seem reasonable for investment firms engaged in algorithmic trading activity, and if not, what would be an appropriate minimum interval for undertaking such reviews? Should a more prescriptive rule be set as to when more frequent reviews need be taken?

Direct electronic access

Background/Mandate/Empowerment

Article 17(7)(a), MiFID II

ESMA shall develop draft regulatory technical standards to specify the following:

(a) the details of organisational requirements laid down in paragraphs 1 to 6 to be imposed on investment firms providing different investment services and/or activities and ancillary services or combinations thereof whereby the specifications in relation to the organisational requirements laid down in paragraph 5 shall set out specific requirements for direct market access and for sponsored access in such a way as to ensure that the controls applied to sponsored access are at least equivalent to those applied to direct market access.

86. Article 17(5): “An investment firm that provides direct electronic access to a trading venue shall have in place effective systems and controls which ensure a proper assessment and review of the suitability of clients using the service, that clients using the service are prevented from exceeding appropriate pre-set trading and credit thresholds, that trading by clients using the service is properly monitored and that appropriate risk controls prevent trading that may create risks to the investment firm itself or that could create or contribute to a disorderly market or could be contrary to Regulation (EU) No .../2014 or the rules of the trading venue. Direct electronic access without such controls is prohibited.

An investment firm that provides DEA is responsible for ensuring that clients using that service comply with the requirements of MiFID II and the rules of the trading venue. The investment firm should monitor the transactions in order to identify infringements of those rules, disorderly trading conditions or conduct that may involve market abuse and that is to be reported to the competent authority. The investment firm should ensure that there is a binding written agreement between the investment

firm and the client regarding the essential rights and obligations arising from the provision of the service and that under the agreement the investment firm retains responsibility under this Directive.

An investment firm that provides direct electronic access to a trading venue shall notify the competent authorities of its home Member State and of the trading venue at which the investment firm provides direct electronic access accordingly.

The competent authority of the home Member State of the investment firm may require the investment firm to provide, on a regular or ad-hoc basis, a description of the systems and controls referred to in first subparagraph and evidence that those have been applied. The competent authority of the home Member State of the investment firm shall, on the request of a competent authority of a trading venue in relation to which the investment firm provides direct electronic access, communicate without undue delay the information referred to in the fourth subparagraph that it receives from the investment firm.

The investment firm shall arrange for records to be kept in relation to the matters referred to in this paragraph and shall ensure that those records be sufficient to enable its competent authority to monitor compliance with the requirements of this Directive.”

Analysis

87. Due diligence should provide assurance that the DEA user has appropriate control over its trading and operational activities, so as to maintain fair and orderly functioning of the markets to which the client connects. Such due diligence may, as appropriate, cover the training and competency of individuals entering orders, access controls over order entry, allocation of responsibility for dealing with actions and errors, the historical trading pattern/behaviour of the client (when available), and the ability of clients to meet their financial obligations to the firm.
88. Due diligence should in any case provide assurance to the DEA provider that it can safely provide DEA to its client, and to establish that the client is indeed suitable for being a DEA user (i.e., regarding the appropriateness of the client’s systems and controls, governance structure, culture, and financial health, etc). In this context it may be the case that particular precautions and diligence may need to be taken before allowing a new client to become a DEA user with whom the investment firm does not have a prior relationship in other areas of services provision.
89. ESMA proposes to take the systems and controls requirements that trading venues apply to members as a minimum benchmark for the level of systems and controls that DEA users need to have in place. This is based on the consideration that DEA users may have an impact on the fair and orderly trading on a venue comparable to that of the members of that venue. For that reason, it seems appropriate to require that the systems and controls of both DEA users and members of a venue are at least equivalent. However, ESMA considers that DEA providers may apply higher systems and controls requirements to their clients if they consider this to be necessary for managing the reputational and financial risks to which they are exposed by allowing a client to trade on a venue under the DEA provider’s membership.
90. NCAs have to scrutinise that an investment firm is able to meet the requirements under Article 17 (5) of MiFID II, in particular to manage the risks attached. Thus, on a case-by-case basis, the analysis and inspections may even lead to a ban of providing DEA, including Sponsored Access (e.g. when a DEA provider is not aware of which individuals or algorithms are submitting orders through its systems).

Proposal

General

91. Investment firms offering DEA to clients are responsible for the trading of those clients. These investment firms shall establish policies and procedures to ensure the trading of those clients complies with the rules and procedures of the relevant trading venues to which the orders of such clients are submitted and to enable the investment firm to meet its regulatory obligations.

Due diligence on DEA users

92. Investment firms should conduct due diligence on prospective DEA users, as appropriate to the risks posed by the nature of the clients, the scale and complexity of their prospective trading activities and the service being provided, which should include an assessment of the level of expected trading and order volume and the nature of connectivity to the relevant trading venues. This due diligence should cover, as a minimum, matters such as:

- i. all the regular due diligence following from know-your-client (KYC) and anti-money laundering requirements;
- ii. the governance structure (including in particular risk management and compliance) and ownership structure;
- iii. an analysis of all algorithms the investment firm has received from the DEA user in order to deploy them for the execution of orders;
- iv. the training and competency of individuals entering orders;
- v. access controls over order entry;
- vi. the operational set-up of the DEA user;
- vii. allocation of responsibility for dealing with actions and errors;
- viii. the financial standing of the DEA user; and,
- ix. the historical trading pattern /behaviour of the DEA user (when available).

93. In addition, where relevant, and where not already covered above, a DEA provider may for the purpose of its due diligence take into account any of the elements mentioned in the non-exhaustive list contained above regarding the nature, scale, and complexity of investment firms undertaking algorithmic trading activities.

94. In the process of due diligence, investment firms should take into account the regulatory status of the prospective client and their disciplinary history with competent authorities and trading venues.

95. When analysing algorithms provided by the client, the investment firm should, in addition to the source code and the functioning of the algorithm, also take into account the client's process to develop (including outsourcing) or purchase the algorithms.

96. The due diligence assessment should be periodically reviewed. In addition, the DEA provider should carry out a periodic risk-based reassessment of the adequacy of its clients' systems and controls, in particular taking into account changes to the scale, nature or complexity of their trading activities or strategies, and/or changes to their staffing, ownership structure, trading or bank account, regulatory status, or financial position.
97. The DEA provider should require from each person using the service similar information, and expect at least equivalent systems and controls to be in place, as the client would have to provide to the trading venue if the client was (applying to become) a member/participant.

Q215: Are there any elements that have not been considered and / or need to be further clarified here?

Q216: What is your opinion of the elements that the DEA provider should take into account when performing the due diligence assessment? In your opinion, should any elements be added or removed? If so, which?

Q217: Do you agree that for assessing the adequacy of the systems and controls of a prospective DEA user, the DEA provider should use the systems and controls requirements applied by trading venues for members as a benchmark?

Q218: Do you agree that a long term prior relationship (in other areas of service than DEA) between the investment firm and a client facilitates the due diligence process for providing DEA and, thus, additional precautions and diligence are needed when allowing a new client (to whom the investment firm has never provided any other services previously) to use DEA? If yes, to what extent does a long term relationship between the investment firm and a client facilitate the due diligence process of the DEA provider? Please elaborate.

Pre-Trade Controls when providing DEA

Analysis

98. This section builds on the ESMA Guidelines; an investment firm which provides DEA should apply all of its usual pre-trade controls to the trading flow of its clients, the DEA users. Based on its initial assessment of a DEA user, the DEA provider should set appropriate trading limit and credit thresholds. The speed at which orders are entered into the market by DEA users increases the risk that, without proper controls, trades may exceed credit or financial limits, as DEA users may be unable to keep track of the orders being entered or because erroneous trades are entered and executed because of a lack of proper controls existing to stop them. Therefore, the DEA provider should operate appropriate automated pre-trade controls which would automatically stop any order from a DEA user which would either compromise the DEA provider's risk appetite or the credit thresholds.
99. ESMA aims to specify more clearly that the DEA provider is expected to monitor intraday, and on a real-time basis, the credit and market risk to which it is exposed as a result of the clients' trading activity so that the DEA provider can adjust the pre-trade controls on orders (as well as the credit and risk limits) as necessary.
100. It is important that DEA providers, wherever they source their pre-trade controls, be it a third party vendor, their own proprietary controls, or controls offered by the venue, have the ability to cancel a trade which is in-built and automatic if the trade poses a risk.

101. In this context, ESMA would like to remind market participants that naked or unfiltered access to a trading venue, where a client's orders do not pass through pre-trade filters before being sent to a trading venue, is prohibited under Article 17(5) of MiFID II and as further explained in recital 66 of MiFID II. DEA clients should never be able to send an order to a trading venue without the order passing through the pre-trade controls of the investment firm.

Proposal

102. An investment firm which provides DEA to its clients should apply the pre-trade controls on order submission described below⁹¹ to the algorithmic trading activity of its DEA users. This will include in-built and automatic rejection of orders outside of certain set price or size parameters. Only the DEA provider is entitled to modify the parameters of the pre-trade controls.

103. The initial pre-trade controls on order submission (as well as the initial credit and risk limits) which the DEA provider applies on the trading activity of its DEA user should be based on its initial due diligence assessment of the client. The DEA provider should monitor intraday, and on a real-time basis, the credit and market risk to which it is exposed as a result of the client's trading activity and adjust the pre-trade controls on orders (as well as the credit and risk limits) as necessary.

104. Limit checking should be automated. Pre-trade risk limits should work hand-in-hand with real-time post-trade risk checks and it should be possible for responsible persons to adjust pre-trade limits intraday.

105. In addition to applying the appropriate pre-trade controls on order entry, for ensuring effective control over the message flow of its DEA user, a DEA provider should have in place the ability to:

- i. Automatically block or cancel orders from a DEA user if they are aware of a financial instrument that a DEA user does not have permission to trade. The investment firm must use an internal flagging system to identify and to block single clients or a small group of clients;
- ii. Automatically block or cancel orders of a DEA user when they risk compromising the DEA user's or DEA provider's risk management thresholds. Controls should be applied as necessary and appropriate to exposures to individual clients or financial instruments or groups of clients or financial instruments, exposures of individual traders, trading desks, the DEA user or DEA provider as a whole; and,
- iii. Ensure that employees of the DEA user involved in order entry have adequate training on order entry procedures, so that their trading activity does not negatively affect fair and orderly trading on the trading venues to which they will send their orders, and so that it will comply with the requirements imposed by the relevant trading venues and competent authorities. This may be achieved through on-the-job training with the experienced traders, classroom-based training, online training, or a combination thereof. The training program should set a clear expectation of the competencies to be mastered by the employees involved in order entry, and these competencies should be appropriately evaluated.

⁹¹ See the sections "Monitoring of DEA users" below.

106. Additionally, DEA providers should have procedures that direct the actions of monitors of trading systems and support staff in the event of a trading system error. The procedures should be aimed at evaluating, managing and mitigating market disruption and firm-wide risk, and should identify people to be notified in the event of an error resulting in violations of the risk profile, or potential violations of trading venue rules.
107. Investment firms offering DEA can use pre- and post-trade controls which are proprietary controls of that investment firm, controls bought in from a vendor, controls provided by an outsourcer or controls offered by the venue itself (i.e. they should never be the controls of the DEA user). DEA providers that allow clients to use third-party trading software for accessing trading venues should ensure that the pre-trade controls contained in this trading software are at least equivalent to the obligations set down above.
108. However, in each of these circumstances the DEA provider remains as the sole individual responsible for the effectiveness of the controls and is responsible for setting the key parameters. In cases where outsourcing of key functions takes place, all existing organisational requirements in outsourcing apply.

Q219: Do you agree with the above approach? Please elaborate.

Monitoring of DEA users

Analysis

109. ESMA replicates here the arguments made in the Consultation Paper for the Guidelines. ESMA considers that DEA providers must ensure all order flow, including that of DEA users and cross-market order flow, is properly monitored. Properly monitored in this context equates to DEA providers taking account of the same points set out below⁹² which an investment firm not using DEA is required to adhere to in its monitoring arrangements if it is undertaking algorithmic trading activities. Additionally, DEA providers should deploy equivalent policies, procedures and standards as investment firms are required to have in order to prevent market abuse (and in particular market manipulation). These policies and procedures should apply to all order flow, including orders and transactions from DEA users.
110. Compared to the original Guidelines, ESMA has set out in more detail below how DEA providers investment firms will need to be able to separately identify orders and transactions of DEA users from other orders and transactions of the firm.

Proposal

111. The provisions on the monitoring of orders (including on a cross-market basis) and on identifying possible instances of market abuse (in particular market manipulation) should apply to all orders from and transactions by DEA users.

⁹² See the section "Trading venues' pre-determination of the conditions to provide DEA".

112. To comply with these obligations, investment firms that provide DEA will need to be able to separately identify orders and transactions of DEA users from other orders and transactions of the investment firm.
113. DEA providers should assign unique IDs to individual DEA users which allow the DEA provider to identify, and if necessary, block orders initiated by the DEA user entity as a whole, as well as by the user's individual trading desks or traders.
114. DEA providers should require DEA users to register their algorithms internally for strategy and order/transaction identification purposes and so that each algorithm may be given its own identifier. DEA providers should require DEA users to have adequate internal processes for registering their own algorithms and strategies to ensure that the change management policies and procedures may be followed and to identify any individual algorithms for the purposes of reporting, notifying, monitoring, or otherwise. The DEA provider should be able to demonstrate to its NCA that this process has been undertaken by its clients.
115. Investment firms should have the ability to immediately halt trading by individual DEA users.

Q220: Do you agree with the above approach, specifically with regard to the granular identification of DEA user order flow as separate from the firm's other order flow? Please elaborate.

Requirements for investment firms acting as general clearing members

Background/Mandate/Empowerment

Article 17(7), MiFID II

ESMA shall develop draft regulatory technical standards to specify the following:

“(a) the details of organisational requirements laid down in paragraphs 1 to 6 to be imposed on investment firms providing different investment services and/or activities and ancillary services or combinations thereof;”

116. Article 17(6), MiFID II determines that “An investment firm that acts as a general clearing member for other persons shall have in place effective systems and controls to ensure clearing services are only applied to persons who are suitable and meet clear criteria and that appropriate requirements are imposed on those persons to reduce risks to the firm and to the market. The investment firm shall ensure that there is a binding written agreement between the firm and the person regarding the essential rights and obligations arising from the provision of that service”.

Analysis

117. To control the risks of acting as a clearing firm, the starting point has to be an initial assessment of a prospective clearing client - based on criteria such as the credit strength of the client, internal risk control systems and trading patterns/strategy⁹³. This should be carried out before a clearing firm agrees to clear the client's trades. A clearing firm should then review a client's on-going performance against these criteria on a periodic basis.
118. At the same time, under EMIR there is a requirement to reduce counterparty risks of derivatives instruments in particular through the use of central counterparty (CCP) where possible. It is vital that the access to CCPs is facilitated by clearing firms for those market participants who are not themselves a member of the CCP. A careful balance therefore must be struck between managing the risks assumed from the clearing firm's clients and not dis-incentivising the clearing firms from providing the clearing service to prospective clients.
119. Setting appropriate trading/position limits is crucial for a clearing firm to mitigate and manage its own counterparty risk. It should therefore be expected that clearing firms set these position limits following an extensive due diligence of the client's trading patterns/credit analysis undertaken during the initial assessment and then monitor them to ensure that they remain appropriate.
120. The clearing firm will be subject to margin calls on an intraday basis from the CCP. The clearing firm must be able to monitor the positions of its clients to whom it provides clearing services so that it can make margin calls on them as appropriate to manage its risk in relation to their positions. Clearing firms may also ask clients for pre-funding of potential future margin calls, in which case any pre-funding so received from clients should be protected so that it can be returned to the clients and not form part of the clearing firm's estate in the event of a clearing firm insolvency.

Proposal

General

121. An investment firm that acts as a general clearing member (a 'clearing firm') for other persons (its 'clients') shall have in place effective systems and controls to ensure clearing services and the firm's guarantee of the client's performance are only provided where appropriate requirements are imposed on those persons by the clearing firm to minimise the risks to the firm and to the market.
122. Clearing firms shall ensure that there is a binding written agreement between themselves and their clients regarding the essential rights and obligations arising from the provision of that service.

Determination of suitable persons

123. Clearing firms must make a proper initial assessment of any prospective clearing client according to the nature, scale and complexity of the prospective client's business⁹⁴. Each potential client must be assessed against, at least, the following criteria:
 - i. credit strength including consideration of any guarantees;

⁹³ See as well, ESMA Q&A on EMIR [<http://www.esma.europa.eu/system/files/2013-324.pdf>], where it is clarified that financial counterparties should obtain representations from their non-financial counterparties detailing their status [OTC Answer 4].

⁹⁴ See ESMA Q&A on EMIR [<http://www.esma.europa.eu/system/files/2013-324.pdf>].

- ii. internal risk control systems;
 - iii. trading patterns/strategy;
 - iv. payment systems and arrangements that enable clients to effect timely transfer of assets/cash (as margin) required by the clearing firm in relation to the clearing services it provides;
 - v. systems and/or access to information that helps clients to respect any maximum trading limit agreed with the clearing firm;
 - vi. any collateral provided to the clearing firm by the client;
 - vii. operational resources including technological interfaces/connectivity; and
 - viii. any involvement in any breach of financial markets integrity, including market abuse, financial crime and money laundering activities⁹⁵.
124. Clearing firms should review their clients' on-going performance against the criteria listed above (and any additional criteria that the clearing firm have imposed) on a periodic basis.
125. Clearing firms' criteria should be non-discriminatory, transparent and objective.
126. The binding written agreement between the clearing firm and clients should include the above criteria, including the frequency at which the clearing firm will review its clients' performance against these criteria and the consequences of clients not complying with them.

Position limits and margining

127. Clearing firms must set and communicate appropriate trading/position limits with their clients in order to mitigate and manage their own counterparty, liquidity, operational and any other risks.
128. Clearing firms must monitor their clients' positions against these limits on a regular basis and have appropriate pre- and post- trade procedures for managing the risk of breaches. These procedures may, amongst other things, include requiring clients to provide margin to clearing firms (including requiring clients to pre-fund the clearing firm in respect of potential future margin calls).
129. If a clearing firm requires margin pre-funding from its clients, it must ensure that any such margin pre-funding respects segregation arrangements and requirements arising from EMIR.
130. Clearing firms must document such procedures in writing and keep records of compliance with them.

Systems and controls

131. Any system the clearing firm is using to support the provision of clearing services to clients should be subject to appropriate due diligence, controls, and monitoring.

⁹⁵ As also envisaged in the Directive 2005/60/EC of the European Parliament and of the Council on the prevention of the use of the financial system for the purpose of money laundering and terrorist financing.

Client disclosures

132. A clearing firm should publicly disclose the fees and conditions applicable to clients to whom it provides clearing services.
133. In line with EMIR requirements⁹⁶, a clearing firm should publicly disclose the levels of protection and the costs associated with the different levels of segregation that they provide and shall offer those services on reasonable commercial terms. Details of the different levels of segregation shall include a description of the main legal implications of the respective levels of segregation offered including information on the insolvency law applicable in the relevant jurisdiction.

Determination of indirect client

134. Clearing firms should seek to determine whether their clients are providing clearing services to their own clients (indirect clients). Unless the client guarantees the performance of indirect clients, clearing firms should identify, monitor, and manage any material risks arising from those indirect clearing arrangements.

⁹⁶ Article 39(7) Regulation (EU) No 648/2012 on OTC derivatives, central counterparties and trade repositories (EMIR)

- Q221:** Are there any criteria other than those listed above against which clearing firms should be assessing their potential clients?
- Q222:** Should clearing firms disclose their criteria (some or all of them) in order to help potential clients to assess their ability to become clients of clearing firms (either publicly or on request from prospective clients)?
- Q223:** How often should clearing firms review their clients' ongoing performance against these criteria?
- Q224:** Should clearing firms have any arrangement(s) other than position limits and margins to limit their risk exposure to clients (counterparty, liquidity, operational and any other risks)? For example, should clearing firms stress-test clients' positions that could pose material risk to the clearing firms, test their own ability to meet initial margin and variation margin requirements, test their own ability to liquidate their clients' positions in an orderly manner and estimate the cost of the liquidation, test their own credit lines?
- Q225:** How regularly should clearing firms monitor their clients' compliance with such limits and margin requirements (e.g. intra-day, overnight) and any other tests, as applicable?
- Q226:** Should clearing firms have a real-time view on their clients' positions?
- Q227:** How should clearing firms manage their risks in relation to orders from managers on behalf of multiple clients for execution as a block and post-trade allocation to individual accounts for clearing?
- Q228:** Which type(s) of automated systems would enable clearing members to monitor their risks (including clients' compliance with limits)? Which criteria should apply to any such automated systems (e.g. should they enable clearing firms to screen clients' orders for compliance with the relevant limits etc.)?

4.3. Organisational requirements for trading venues (Article 48 MiFID II)

Background/Mandate/Empowerment

1. On February 24, 2012, ESMA published the Guidelines on systems and controls in an automated trading environment for trading platforms, investment firms and competent authorities. Guidelines 1 and 3 deal with the resilience of trading venues and their ability to ensure fair and orderly trading through their systems. ESMA intends to base its advice on the existing ESMA Guidelines for trading venues which already provide a useful framework to build on, also considering the efforts made by the industry to implement the systems and controls there outlined.

Requirements for members or participants of trading venues permitting algorithmic trading through their systems

Analysis

2. It is important to clarify that under the scope of Article 48 of MiFID II fall the requirements for trading venues which permit algorithmic and high frequency trading through their systems, as opposed to Article 53 of MiFID II which sets out the requirements to become member or participant of a trading venue in general. As a consequence, it seems necessary to assess whether the fact of being registered as an investment firm or authorised as a credit institution relieves the firm completely from meeting certain requirements so as to act as an algorithmic or high frequency trading.
3. ESMA departs partially from the Guidelines when it proposes to expand the requirement to apply due diligence to investment firms and credit institutions⁹⁷.

Proposal

4. ESMA's preliminary view is that not only all prospective members or participants of a trading venue, which permits algorithmic trading through its systems, should be subject to adequate due diligence to ensure that they meet certain pre-defined parameters, but also all its current members/participants should meet those parameters. To that end, periodic reviews should be designed and implemented by trading venues. In addition, ESMA includes a list of elements that at least should be analysed by the trading venue when performing due diligence. ESMA is keen to know whether this list should be expanded or reduced.
5. Therefore, ESMA considers that where a trading venue permits algorithmic trading through its systems, it should perform adequate due diligence on applications to become a member/participant and at least yearly reviews after that to maintain the status, and in particular to those applicants who are not credit institutions or investment firms under EU law. So as to perform adequate due diligence,

⁹⁷ See Consultation Paper about the Guidelines (http://www.esma.europa.eu/system/files/2011_224.pdf) where ESMA considered that "for members/participants and users that are credit institutions or investment firms trading venues have assurance that they have adequate organisational arrangements to trade safely. This is because they are obliged to have such arrangements under MiFID. The same is not the case for members/participants or users that are not credit institutions or investment firms. For these firms there might be some comfort if they are regulated in another jurisdiction but not if they are completely unregulated".

trading venues should have standards covering the knowledge of staff and technical arrangements within members/participants who will be using order entry systems covering, at least:

- i. pre-trade and post-trade controls on their trading activities (including controls to ensure that there is no unauthorised access to the trading systems and pre-trade controls on order price, quantity, value and usage of the system). When technically possible, the controls should be automatic;
 - ii. staff selection policy and training practice (in particular in relation to market abuse and algorithmic trading);
 - iii. responsible manager/s for the operation of the trading system/s, staff composition, structure and segregation of the risk, compliance and monitoring functions (in particular, evidence on the separation of these tasks should be provided);
 - iv. technical and functional conformance testing;
 - v. testing of algorithms to ensure they cannot create or contribute to disorderly trading conditions;
 - vi. existence of a kill button or function and policy of use;
 - vii. business continuity and disaster recovery procedures; and
 - viii. outsourcing policy.
6. These requirements should be published by each trading venue.
7. ESMA also considers that trading venues:
- i. shall maintain an up-to-date list of trader IDs within members/participants and users of trading systems, deactivating inactive trader IDs after a period for safety reasons, unless those IDs are part of the business continuity plan of the given member/participant or user; and
 - ii. should have the same organisational requirements for all members/participants (taking into account as necessary the controls imposed on firms authorised outside the EEA), including requirements on the monitoring of trading against the rules of the platform and the management of risk.

Q229: Do you agree with requiring trading venues to perform due diligence on all types of entities willing to become members/participants of a trading venue which permits algorithmic trading through its systems?

Q230: Do you agree with the list of minimum requirements that in all cases trading venues should assess prior to granting and while maintaining membership? Should the requirements for entities not authorised as credit institutions or not registered as investment firms be more stringent than for those who are qualified as such?

Q231: If you agree that non-investment firms and non-credit institutions should be subject to more stringent requirements to become member or participants, which type of additional information should they provide to trading venues?

Trading venues' obligation to monitor the performance and capacity of their systems

Analysis

8. ESMA considers it is critical to monitor in real time the performance of the market so as to be able to react in a timely manner to any disruption that may arise. In this respect, ESMA reiterates that it aims at setting the minimum common denominator to be met by trading venues which permit algorithmic trading through their systems. Therefore, some trading venues might have to monitor additional elements according to the nature, scale and complexity of their business.
9. On that basis, ESMA proposes a set of parameters that, as a minimum, should be monitored in real-time by the trading venues and is keen to know the views of market participants on whether there should be additional elements, whether some of the elements listed above should be redefined and whether there are trading models permitting algorithmic trading through their systems for which the parameters listed above would be inadequate. Regarding the periodic review of the system, ESMA's proposal replicates the arguments made in the Consultation Paper for the Guidelines.

Proposal

10. ESMA's preliminary view is that, on an ongoing basis, the system (or systems) of trading venues should be well adapted to the business which takes place through it (or them) and is (or are) robust enough to ensure continuity and regularity of performance. In particular, the system (or systems) should be under permanent review so as to ensure that the risks and challenges posed by technological developments are properly addressed, ensuring business continuity.
11. Trading venues should be able to demonstrate at all times to NCAs continuous real-time monitoring of the performance and degree of usage of the elements of their trading systems in relation to, at least, the following parameters:
 - i. percentage of the maximum message capacity used per second;
 - ii. number of trades executed per second, to detect decreases in performance;
 - iii. total number of messages managed by the trading system broken down per element of the system including:

- a. number of messages received per second;
 - b. number of messages sent per second; and
 - c. number of messages rejected by the system.
- iv. total Daily Trades;
 - v. gateway-to-gateway latency, measured from the moment a message is received by an outer gateway of the trading system, sent through the order entry protocol, processed by the matching engine, and then sent back until an acknowledgement is sent from the gateway [roundtrip]; and
 - vi. matching engine progress, measuring the time it takes for the matching engine to accept, process and confirm a message until an acknowledgment is sent from the gateway [roundtrip].
12. Trading venues should deal adequately with problems identified as soon as reasonably possible in order of priority and be able when necessary to adjust, wind down, or shut down the trading system.
 13. As far as periodic review of the system is concerned, ESMA's preliminary view is that, additionally and at least twice a year, operators of trading venues should review and evaluate the performance of their trading systems, and associated process for governance, accountability and sign-off and associated business continuity arrangements. They should act on the basis of these reviews and evaluations to remedy deficiencies. As part of the review programme, trading venues should:
 - i. calculate the median lifetime of the orders modified or cancelled in the trading venue for that period and determine the members or participants whose median lifetime of orders is shorter; and
 - ii. run stress tests, where the design of adverse scenarios should contemplate the functioning of the system under:
 - a. stressed market conditions, as defined above.
 - b. unexpected behaviour of critical constituent elements of the trading system, associated systems and communication lines. In particular, the on-going stress testing should identify how hardware, software and communications respond to potential threats, covering all trading phases, trading segments and type of events (order entry, modification, cancellation, etc.) to identify systems or parts of the system with tolerance or no tolerance to the adverse scenarios.
 - c. random combination of market conditions (stressed or no stressed) and unexpected behaviour of critical constituent elements.

Periodic stress testing should be followed by measures to address those shortcomings.

- iii. The review and evaluation process should be independent from the production process (upstream, matching engine and downstream) by the involvement of internal audits, the involvement of any other department whose responsible person is appointed and replaced by senior management or by outsourcing it to third parties.

- Q232: Do you agree with the list of parameters to be monitored in real time by trading venues? Would you add/delete/redefine any of them? In particular, are there any trading models permitting algorithmic trading through their systems for which that list would be inadequate? Please elaborate.**
- Q233: Regarding the periodic review of the systems, is there any element that has not been considered and/or needs to be further clarified in the ESMA Guidelines that should be included?**

Trading venues' capacity

Analysis

14. At a global level, there has been an increase in operational issues in trading venues due to increased competition, growing complexity in the market and advances in technology⁹⁸. As part of its role to ensure the efficiency and orderly functioning of financial markets, ESMA is particularly concerned about the potential impact that these events might have on the stability of the system as a whole and unexpected side-effects the impact of which is difficult to quantify at this stage.
15. ESMA's Guidelines already considered it necessary for trading venues to have "sufficient capacity to accommodate reasonable foreseeable volumes of messaging and that are scalable to allow for capacity to be increased in order to respond to rising message flow and emergency conditions that might threaten their proper operation". ESMA's view has not changed in this respect but it has tried to set out clearer parameters in relation to the capacity that at the very least trading venues should have ready to use.
16. Given that the only valid reference for these purposes is the historic flow of messages, it is proposed to address the difficulty of predicting future increasing trading flow by requiring a predefined sufficient capacity and a system design that can easily increase the capacity.
17. ESMA undertook a fact-finding exercise in 2011 engaging with 26 European trading venues which had a broadly reassuring outcome: in terms of order entry capacity, most respondents reported that the percentage of their capacity used in normal market conditions was at or below 10%. Putting aside those venues which did not respond, the worse positioned venues were at the very least between 25 and 50% of their maximum capacity. In terms of matching engine capacity, several trading venues reported regular stress testing on the basis of the maximum peak of orders historically recorded increased one, two, 'n' times until bottlenecks were identified. Nevertheless, ESMA is keen to know whether the figures proposed should be revised.
18. ESMA is aware that in general, regular market practice is significantly more rigorous than the minimum standard proposed here. In line with the Guidelines, these market standards have been based on the "*nature, scale and complexity of their business*". Therefore, ESMA does not expect the current standards to be reduced in any case.
19. At the same time, it is proposed to introduce an objective measure to determine whether the trading venues' systems might need an upgrade: where a trading venue has reached its historical peak of messaging.
20. In such a case, it is not expected that an expansion of the systems' capacities would be required overnight, but a report to the home NCA where the situation is assessed and a description of the plans in that regard where appropriate. ESMA considers that, for example, it might not be necessary to implement a system upgrade if the historical peak of messages has only reached 40% capacity of the trading systems of the trading venue. On the other hand, if the peak of messages implied a use of 75%

⁹⁸ For a full list of operational issues at global exchanges from March 2012 to August 2013, and an analysis of the reasons of the current situation, see Standard and Poor's report: Exchanges' technical glitches reveal growing operational risk- and could trigger downgrades, available in <http://www.standardandpoors.com/ratings/articles/en/us/?articleType=HTML&assetID=1245357558044>

or 90% of, for instance, order entry capacity, action would be needed. Again, ESMA is keen to know the views of market participants.

21. The expected reaction of a system when its capacity is overloaded is either a general stop (stalled system) or a slower functioning. ESMA's aim is to avoid situations that might have an impact on the orderly functioning of the market. On that basis, ESMA only proposes as a criterion with respect to the adequate performance the lack of: system failures or outages, errors in matching transactions (lost order), missing or incorrect data (transaction lost, display of blank or incorrect prices, no wrong trading volumes). Beyond that, it is up to market forces and NCAs to play their role in determining what is adequate.
22. Finally, ESMA considers that to scale their capacity trading venues cannot use duplicated hardware components to allow for business continuity in case of failure of back-up infrastructure.

Proposal

23. Therefore, ESMA considers that:
 - i. trading venues' trading systems should have sufficient capacity to accommodate at least twice the highest number of messages per second value ever recorded on any given day regarding any of the elements of the trading system (upstream, trading engine, downstream, infrastructure to monitor performance). It will be considered that the capacity of a trading system is not overwhelmed when the elements of that trading system perform their functions without systems failures or outages, errors in matching transactions (no order lost), missing or incorrect data (no transaction lost, no display of blank or incorrect prices, no wrong trading volumes);
 - ii. the trading venue shall assess the capacity on an ongoing basis and it will be considered that the capacity might no longer be sufficient and therefore, that the trading venue might have to expand the capacity of the already installed systems (e.g. changing to faster processors) and/or adding new capabilities (e.g. new servers) once the number of messages has overridden the recorded peak of messages. NCAs shall be immediately informed about the measures planned to expand capacity, including a proposal referred to the expected timing of the arrangements to increase its capacity. The NCA may decide that a system upgrade is not necessary if the historical peak has not reached the capacity limits of any of the elements the trading system (upstream, trading engine, downstream, infrastructure to monitor performance);
 - iii. the trading venue should be able to scale the performance of its systems in order to respond to rising message flow that might threaten its proper operation. The ability to scale the installed capacity should refer at least to the elements and resources listed in the definition of trading system above;
 - iv. trading venues should immediately report to their NCAs and make public interruptions of trading (shut down) or connection disruptions as soon as they take place and the estimated time to resume trading regularly. Trading venues should inform their members/participants and their national regulator about any other disruption on the performance of the systems and resources supporting directly or indirectly the trading system.

Q234: Do you agree with the above approach?

Q235: Do you think ESMA should determine minimum standards in terms of latency or is it preferable to consider as a benchmark of performance the principle “no order lost, no transaction lost”?

Q236: Do you agree with requiring trading venues to be able to accommodate at least twice the historical peak of messages?

Ensuring resilience of trading systems

Analysis

24. Broadly speaking, ESMA’s advice in this respect replicates the arguments made in the Consultation Paper for the Guidelines.
25. As became clear when drafting the Guidelines, it is quite difficult to discriminate what is “resilience and capacity” from what is required to avoid “disorderly trading conditions”. Therefore, ESMA proposes to use as a generic category “resilience” which would encompass issues related to capacity but also issues related to ensure orderly functioning of the markets.
26. In addition, the resilience of trading systems is guaranteed not only by the technical ability to process orders and trades, but also by the safety measures relating to order rejection and the halting or constraining of trading. In recent market history there has been a series of incidents that illustrate the need for mechanisms to halt or constrain trading, as they can efficiently contribute to limiting the effects of market disruptions and simultaneously enable the market to pursue its trading objective. Therefore, ESMA holds these mechanisms as key to market resilience.
27. Whilst the need to have said mechanisms in place flows directly from MiFID II and the calibration of trading halts taking into account the factors mentioned in Article 48(5) will be the object of ESMA Guidelines⁹⁹, there are still a number of aspects which need to be addressed and are covered under mechanisms to ensure resilience of the trading system.
28. ESMA considers that the list below is in line with current market practice and should not imply a significant change for market participants. However, due to the impact that those decisions might have, it is not advisable to leave absolute discretion to the trading venue in that respect. Therefore, it is proposed that trading venues should at least publish their policy to maintain resilience of the market. This policy should act as a framework to permit market participants to have certainty and predictability, and to be in a position to challenge where need be trading venues’ decisions.
29. With respect to the publication of the policy on mechanisms to manage volatility, ESMA is aware of the risks that the publication of the specific parameters might pose to the markets. Therefore, it is clarified that at this stage and in light of Article 48(5) MiFID II, that it is not expected to change current market practice in this area, i.e. the specific parameters used to halt trading need not to be mandatorily published by the trading venues and trading venues should maintain the ability to manage

⁹⁹ See Article 48(13) MiFID II.

them on both an automatic and discretionary basis. Apart from that trading venues should maintain their ability to adjust those levels during the day to volatile market conditions and other circumstances such as earning reports.

30. Regarding the cancellation or amendment of orders and transactions, ESMA is interested to know the views of market participants in relation to the degree of discretion that trading venues should retain.

Proposal

31. Therefore, ESMA is of the view that trading venues should have at least the following arrangements to prevent disorderly trading and breaches of capacity limits:

- i. set out limits per participant on the number of orders sent (throttle limits) per second to prevent flooding of the order book;
- ii. provide for mechanisms to manage volatility, as described in the relevant section;
- iii. require pre- and post-trade controls, as described in the relevant section;
- iv. obtain information from any member/participant or user to monitor compliance with the rules and procedures of the trading venue relating to organisational requirements and trading controls;
- v. suspend the access of a member/participant to the market at the trading venue's own initiative or at the request of that participant, a clearing member, the CCP in the pre-defined cases of their governing rules and the regulator;
- vi. cancel and amend orders at least under the following circumstances:
 - a. when a member or market participant cannot update or delete its own orders;
 - b. when the order book is corrupted by erroneous orders (duplicated);
 - c. in cases of a suspension initiated either by the market operator or the regulator; and
 - d. in cases of a request from the CCP in the pre-defined cases of the CCP's governing rules;
- vii. cancel, vary or correct transactions; and
- viii. balance order entrance through different gateways so as to avoid collapses.

32. In addition, ESMA is of the view that trading venues should pre-define and make public their arrangements as regards:

- i. mechanisms to manage volatility;
- ii. request pre- and post-trade controls to their members or participants, including the functioning of the kill functionality;
- iii. information requirements to members/participants;

- iv. suspension of access;
 - v. intervention of orders and transactions policy (cancellation, correction or amendment), which should include at least:
 - a. cases, timing and entitlement to invoke the intervention policy, including at least malfunction of the trading venue's mechanisms to manage volatility;
 - b. procedure to follow;
 - c. specific procedures to effectively cancel a transaction (reverse trade, transfer position, cash settlement, price adjustment, etc);
 - d. reporting and transparency obligations;
 - e. dispute resolution procedures; and
 - f. measures to minimise erroneous trades;
 - vi. framework for throttling arrangements should encompass at least:
 - a. timeframe of throttling for each case;
 - b. equal-treatment policy among market participants and members (unless they are throttled on an individual basis);
 - c. penalties that the trading venue may impose in cases where inadequate behaviour from one or several member/s or participant/s has led to throttling; and
 - d. measures to be adopted following a throttling event;
33. Trading venues should be able to demonstrate at all times to NCAs continuous real-time monitoring of the market for possible signs of disorderly trading. In particular, trading venues should monitor concentration flow of orders to detect potential threats to the orderly functioning of the market.
- Q237: Do you agree with the list of abilities that trading venues should have to ensure the resilience of the market?**
- Q238: Do you agree with the publication of the general framework by the trading venues? Where would it be necessary to have more/less granularity?**
- Q239: Which in your opinion is the degree of discretion that trading venues should have when deciding to cancel, vary or correct orders and transactions?**
34. With respect of mechanisms to manage volatility, ESMA's preliminary view is that the following principles should apply:
- i. trading venues shall ensure that appropriate mechanisms to halt trading are in place in all phases of trading (i.e. from opening to close of trading);

- ii. trading venues shall perform an in-depth assessment to evaluate the potential risks, pros and cons to investors and the market arising from different approaches to trading halts, taking into account: i) the specific trading model; ii) the trading profile of the financial instrument; iii) the volatility history of financial instruments that are considered to have similar characteristics;
 - iii. trading venues shall ensure that appropriate mechanisms and arrangements are in place for initial and periodic testing of the mechanisms to halt or constrain trading;
 - iv. trading venues shall allocate specific and adequate IT and human resources to deal with the design, maintenance and monitoring of the effectiveness of the mechanisms implemented to halt or constrain trading;
 - v. trading venues shall continuously monitor the adequacy of the thresholds in light of the observed volatility to ensure that they are in line with market developments;
 - vi. trading venues shall disclose on their respective websites the relevant information relating to the basis for halting or constraining trading and the rules and protocols under which they are implemented in order to provide market participants with sufficient predictability and certainty; and
 - vii. trading venues shall ensure that procedures are in place to manage situations where the trading venue is required to derogate to the general framework and/or intervene to change substantial elements of the framework (such as thresholds, time length of intra-day auction, etc) for ensuring orderly trading;
35. In addition, ESMA considers that trading venues shall maintain records of all relevant information with respect to the analysis carried out for the purpose of the implementation of the existing and new mechanism to halt or constrain trading as well as of the operation and management of the mechanisms, to be made available to the NCA upon request.

Q240: Do you agree with the above principles for halting or constraining trading?

Q241: Do you agree that trading venues should make the operating mode of their trading halts public?

Q242: Should trading venues also make the actual thresholds in place public? In your view, would this publication offer market participants the necessary predictability and certainty, or would it entail risks? Please elaborate.

Testing the capacity of members or participants to access trading systems

Proposal

36. ESMA's preliminary view is that trading venues should establish standardised conformance testing, at both a technical and functional level:
- i. technical tests should include at least connectivity (including cancel/don't cancel on disconnect, market data feed loss and throttles), recovery (including cold intra-day starts) and the handling of suspended instruments or stale market data; and

- ii. functional tests should include at least static and market data download and all business data flows (such as trading, quoting and trade reporting).
37. Trading venues should require members and participants to test their compatibility with the trading system and their ability to process market data not only prior to accessing the market but also before the deployment of new functionalities in the trading venue. Minor software releases, optional functionalities and stress tests should be exempted from such requirement. Trading venues should only grant access to the market if they are satisfied with the results obtained from the conformance testing. To that end, venues should make data sets and access to testing environments available to prospective members/participants or members/participants willing to test a new algorithm/functionality.
38. Testing of the most basic functionalities (such as checking whether the investment firm's system is able to submit an order to the venue or delete the order) is not included in the concept of "conformance testing" included above. Therefore, members or participants of trading venues are responsible for testing these elements using whatever means they consider appropriate.
39. ESMA also considers that a conformance testing environment should have at least the following characteristics:
 - i. Be easily accessible;
 - ii. the list of instruments available for testing should be consistent with the ones available in the live environment;
 - iii. a self-certification front-end so as to permit unusual scenarios to be simulated;
 - iv. availability during general market hours or pre-scheduled periodic basis if outside market hours;
 - v. supported by knowledgeable staff; and
 - vi. a report with the outcome of the testing should be made available to the member/participant or prospective member/participant.
40. ESMA requests the view of market participants regarding the possibility of members or participants undertaking alternative conformance testing.

Q243: Do you agree with the proposal above?

Q244: Should trading venues have the ability to impose the process, content and timing of conformance tests? If yes, should they charge for this service separately?

Q245: Should alternative means of conformance testing be permitted?

Testing of members' or participants' algorithms to avoid disorderly trading conditions

Analysis

41. With regard to testing to avoid disorderly trading conditions, trading venues should ensure that the testing environment and designed scenarios are as close to real market situations as possible¹⁰⁰.

Proposal

42. ESMA's preliminary view is that:
- i. testing of algorithms in relation to the creation of or contribution to disorderly trading should become part of the regular procedure for accessing a trading venue;
 - ii. notwithstanding any alternative type of testing that firms may undertake for the same purposes, firms should use the testing facilities provided by the market in which they plan to operate; and
 - iii. the onus is on the member/participant to have their algorithms tested under appropriate scenarios before deployment. On those bases, they should be in the position to demonstrate that they have undertaken all reasonable steps to avoid that their algorithms contribute to disorderly market conditions. There may be cases under which, the scenarios provided by trading venues might not be sufficient for those purposes.
43. Testing must be carried out ensuring separation from the real market flow.
44. ESMA is keen to obtain the views of market participants regarding the ability to test new algorithms by alternative means to those provided by trading venues.

Q246: Could alternative means of testing substitute testing scenarios provided by trading venues to avoid disorderly trading conditions? Do you consider that a certificate from an external IT audit would be also sufficient for these purposes?

Q247: What are the minimum capabilities that testing environments should meet to avoid disorderly trading conditions?

Pre-trade controls

Analysis

45. As a matter of principle, members and participants are responsible for the orders they submit on the trading platform. As a consequence, and in line with the Guidelines, ESMA considers it necessary for them to have in place systems which check their orders before submission to the trading system, and trading venues should not permit access to the market without that type of pre-trade control.
46. The data collection exercise undertaken by ESMA in 2011 on 26 trading venues in Europe indicated that a significant number of European trading venues did not have in place any platform-level controls to access the market, being at the discretion of the members themselves. From the responses received, it became clear as well that the majority of trading venues consider it as a pre-requisite to ac-

¹⁰⁰ See as well "Relationship between fee structures and the testing obligation for trading venues"

cess the market having those systems in place and many of them offer pre-trade control services. It also became clear that third party provision of pre-trade controls exist.

47. Finally, trading venues cannot disregard completely performing pre-trade controls at an aggregated level so as to ensure that appropriate functioning of the aforementioned mechanisms to ensure resilience of the market. Trading venues should pre-define and keep continuously updated pre-trade limits.

Proposal

48. ESMA's preliminary view is that trading venues should operate and request their members and participants to operate, at least, pre-trade risk limits and controls in relation to:

- i. price;
- ii. size;
- iii. order value;
- iv. number of orders;
- v. maximum long/short positions (for derivatives);
- vi. maximum long/short overall strategy position (for derivatives);
- vii. kill functionality; and
- viii. market impact assessment.

49. Pre-trade risk limits mentioned above should be automated in all those cases where algorithmic trading is permitted on the trading venue. The operation of pre-trade limits should be monitored on a continuous basis and the trading venue will be able to amend the thresholds intra-day. Trading venues should make public the general framework of their pre-trade risk limits.

Q248: Do you agree with the proposed approach?

Q249: In particular, should trading venues require any other pre-trade controls?

Relevant market in terms of liquidity as regards mechanisms to manage volatility

Background/Mandate/Empowerment

Article 48(12)(e), MiFID II

ESMA shall develop draft regulatory technical standards further specifying:

“the determination of where a regulated market is material in terms of liquidity in that instrument.”

50. Article 48(5): “Member States shall require that where a regulated market which is material in terms of liquidity in that instrument halts trading, in any Member State, that trading venue has the necessary systems and procedures in place to ensure that it will notify competent authorities so as to coordinate a market-wide response and determine whether it is appropriate to halt trading on other venues on which the instrument is traded until trading resumes on the original market”.
51. Article 48(5) of MiFID II imposes on regulated markets¹⁰¹ which are material in terms of liquidity in a given instrument to have the necessary systems and procedures in place to ensure that it will notify competent authorities.

Analysis

52. Since the obligation to have the necessary systems and procedures in place to ensure notification to NCAs is instrumental to the determination of whether it is appropriate to halt trading on other venues on which the instrument is traded until trading resumes on the original market, it is reasonable that said venues should have a considerable share of the trading activity in that instrument.
53. Mandating the consideration of the appropriateness of a market-wide trading halt derives from fragmentation in the trading landscape and the regulatory need to prevent trading venues abstaining from halting trading so as not to lead to a liquidity transfer to other trading venues.

Proposal

54. ESMA’s preliminary view is that the relevant markets for these purposes should be, in line with the determination of a market whose price could be used for reference price systems under Article 4 MiFIR:
 - i. the regulated market where the instrument was first admitted to trading; and
 - ii. the trading venue with the highest level of liquidity during a certain time period in the relevant financial instrument. ESMA is of the view that liquidity may reliably and easily be measured by the total value of transactions executed by the trading venue.

Q250: Do you agree that for the purposes of Article 48(5) the relevant market in terms of liquidity should be determined according to the approach described above? If, not, please state your reasons.

Q251: Are there any other markets that should be considered material in terms of liquidity for a particular instrument? Please elaborate.

Controls concerning Direct Electronic Access (DEA)

Background/Mandate/Empowerment

Article 48(12)(c), MiFID II

¹⁰¹ This regime is extended to MTFs and OTFs by MiFID article 18(3).

ESMA shall develop draft regulatory technical standards further specifying:

“the controls concerning direct electronic access in such a way as to ensure that the controls applied to sponsored access are at least equivalent to those applied to direct market access.”

Preliminary point

55. Article 48 of MiFID II sets out a number of requirements with respect to the provision of DEA:
- i. DEA has to be provided by an investment firm authorised or a credit institution duly authorised;
 - ii. pre-determination of criteria on the suitability of clients and effective application of such criteria;
 - iii. responsibility of the DEA provider of the orders submitted and trades executed using its trading code; and
 - iv. trading venues should:
 - a. pre-determine standards regarding risk controls and thresholds on trading through DEA;
 - b. be able to distinguish and stop orders or trading from a person using DEA; and
 - c. be able to suspend or terminate the provision of DEA to a client in case of non-compliance with the above mentioned requirements.

Analysis

56. A preliminary point with respect to the provision of DEA is the degree of intervention that trading venues should have with respect to members/participants willing to provide that service.
57. IOSCO’s principles for Direct Electronic Access to Markets¹⁰² do not pronounce themselves neither on the relationship trading venue-DEA provider, nor on the possible relationship trading venue-DEA user.
58. As explained in ESMA’s Consultation Paper on the Guidelines, trading venues should retain the right to decide who is able to access their market. A survey undertaken by ESMA in 2011 on 22 trading venues identified different approaches to this: whereas some trading venues did not require their members/participants to disclose whether they offered DMA, others obliged SA providers to report but not DMA providers. At the other end of the scale, some trading venues obliged to sign an addendum and complete a process to ensure that only suitable participants could offer SA. Finally, there were venues which not only authorised the DEA provider but also the DEA user.
59. In particular, ESMA has considered whether the trading venue should authorise DEA providers and DEA users. This option is not included since it may imply significant challenges in terms of resources if trading venues were to revise each and every application to access and blur the responsibility that the investment firm or credit institution has in this respect. However, trading venues may consider

¹⁰² <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD332.pdf>

that it is not only their responsibility to control who effectively accesses their market, but it is also in their commercial and reputational interest to review applications to become a DEA provider and a DEA user. On that basis, ESMA considers that under option b), trading venues willing to authorise not only DEA providers but also DEA users should be able to make it.

Proposal

60. At the moment, ESMA is considering two options regarding the power of trading venues to permit their members or participants to provide DEA to their clients:
- i. *option a*: trading venues should set out a general framework that should be met by its members or participants in case they want to offer DEA. In case the trading venue detected that the framework is not met by a member/participant, it should ban the provision of DEA by that member/participant;
 - ii. *option b*: trading venues should authorise the provision of DEA by each and every one of its members or participants before those members/participants may offer that service to their clients.

Q252: Which of the above mentioned approaches is the most adequate to fulfil the goals of Article 48? Please elaborate

Q253: Do you envisage any other approach to this matter?

Trading venues' pre-determination of the conditions to provide DEA

Analysis

61. ESMA reiterates the arguments put forward in its Consultation Paper on the Guidelines: trading venues which allow members/participants to provide access to their markets should have in place an appropriate set of rule/sanctions which reduces the risk of disruption to the particular platform and the wider market.
62. The list of elements included below is based on the existing MiFID I requirements, evidence gathered by ESMA in relation to current market practice and also the IOSCO principles for Direct Access to Markets.
63. Trading venues are the best placed to determine which systems and controls are adequate for the provision of DEA. Therefore, trading venues should determine which specific monitoring requirements, pre- and post-trade controls, authorisation policy in relation to clients' outsourcing and periodic stress testing are necessary to provide this service.
64. ESMA considers that the allocation of duties in a DEA situation is correctly described in the Guidelines.

Proposal

65. ESMA's preliminary view is that:

- i. regardless of the system used to permit the provision of DEA, trading venues should set out and make public a framework for potential applicants to provide DEA to their clients;
- ii. the framework should cover, at least the following conditions:
 - a. being registered as an investment firm under MiFID or authorized as a credit institution under Directive 2006/48/EC;
 - b. the necessary due diligence on clients to which they intend to provide DEA service with the objective of ensuring minimum standards regarding DEA user:
 - (i) has appropriate financial resources;
 - (ii) the relevant persons of the DEA user have sufficient knowledge of market rules and trading systems; and
 - (iii) the relevant persons of the DEA user have sufficient knowledge of and proficiency in the use of the order entry system used.
 - c. the necessary existence of a binding written agreement between DEA provider and DEA user, according to the nature and scale of the provided service;
 - d. description of what should be the adequate systems and effective controls to ensure that the provision of DEA does not adversely affect compliance with the rules of the venue, lead to disorderly trading or facilitate conduct that may involve market abuse. The means to ensure that adequacy should include at least:
 - (i) monitoring requirements such as user definition¹⁰³ and product definition¹⁰⁴, recognition of DEA orders submitted by the clients, control of the overall trading activity carried out by DEA clients, monitoring the frequency of DEA orders that have overridden the existing controls and system alerts in terms of price, size and number;
 - (ii) pre-trade and post-trade risk management trade controls such as kill functionality, position limits, maximum order size per user, automatic order rejection (when the limit is exceeded) or the order is being held subject to manual override by authorized risk manager. Naked (i.e. unfiltered) sponsored access should not be possible;
 - (iii) authorisation policy in relation to clients' outsourcing; and
 - (iv) periodic stress testing.
 - e. responsibility (including sanctions) vis-à-vis trading venues, reflecting that DEA providers remain responsible to the trading venue for all trades using their market participant ID code or any other related identification.

¹⁰³ Only pre-determined individuals may enter orders using DEA access.

¹⁰⁴ User can only submit orders on pre-defined products.

Q254: Do you agree with the list of elements that should be published by trading venues to permit the provision of DEA to its members or participants?

Q255: Do you agree with the list of systems and effective controls that at least DEA providers should have in place?

Q256: Do you consider it is necessary to clarify anything in relation to the description of the responsibility regime?

Trading venues' systems and controls permitting DEA through their systems

Analysis

66. ESMA's discussion in this respect replicates the arguments made in the Consultation Paper for the Guidelines. The main difference is that it does not seem necessary to discriminate between the provision of DMA and SA: trading venues should have equivalent systems and controls to manage the potential risks arising from either of them.
67. ESMA is aware that for the time being there is no Legal Entity Identifier (L.E.I.) in place. Therefore, it is expected that trading venues will monitor Sponsored Access clients and as soon there is a way to identify DMA users, they should be in a position to monitor them on a user by user basis.

Proposal

68. ESMA preliminary view is that where a trading venue permits DEA through its trading systems, the trading venues should maintain, at least, the ability to:
 - i. monitor orders sent to its systems by an individual user through DEA provided by a member or participant;
 - ii. stop orders transmitted by any single DEA client of on the basis of its specific DEA client ID;
 - iii. suspend or withdraw DEA to clients of investment firms where they are not satisfied that continued access would be consistent with their rules and procedures for fair and orderly trading;
 - iv. carry out, where necessary, a review of a member, participant or user's internal risk control systems; and
 - v. restrict DEA services provision of an investment firm where the venue is not satisfied with the application of the DEA legal framework, its internal rules, the regulations for fair and orderly trading in MiFID and these technical standards.

Q257: Do you consider necessary for trading venues to have any other additional power with respect of the provision of DEA?

4.4. Market making strategies, market making agreements and market making schemes

Preliminary point on the purpose of Article 17 and 48 of MiFID II

1. ESMA's mandate in relation to the provisions with regard to market making strategies and market making schemes can be found in Article 17(7)(b) and (c) and Article 48(12)(f) of MiFID II. These Articles state that ESMA must identify when a market making agreement is appropriate, when a market making scheme is not appropriate, and the content of the market making agreement, including the proportion of trading hours that investment firms participating in such agreements must be present in the market, the exceptional circumstances where participation is not required, the minimum obligations that trading venues must provide for in the market making agreement, making sure that such market making schemes are fair and non-discriminatory.
2. The purpose of the references to market making agreements and market making schemes in Article 48 of MiFID II (and the correlated obligations for investment firms under Article 17 of MiFID II) is framed by Recitals 62 and 113 of MiFID II which notes that the expanded possibilities that technology provide go hand in hand with a number of potential risks such as any type of malfunctioning that may create a disorderly market. A key example of that would be the 6th May 2010 events where a 'flash crash' was caused by a sharp decline in the price of two stock index products: the E-Mini and SPY, derivative instruments traded in the electronic futures and equity markets designed to track stocks in the S&P 500 Index¹⁰⁵. In order to mitigate against 'flash crash' trading instances that have occurred in some global trading venues since the introduction of MiFID I, MiFID II aims at enhancing market participants' ability to transfer risks efficiently in disorderly trading conditions.
3. Article 48 of MiFID II imposes on trading venues the obligation to "have in place agreements with all investment firms pursuing a market making strategy on the regulated market" and "schemes to ensure that a sufficient number of investment firms participate in such agreements which require them to post firm quotes at competitive prices with the result of providing liquidity to the market on a regular and predictable basis, where such a requirement is appropriate to the nature and scale of the trading on that regulated market". Article 18(5) MiFID II ensures that this requirement is also applicable to MTFs and OTFs.
4. This provision is further specified for a specific type of activity that an investment firm may undertake: pursuing a market making strategy. Under Article 17(3) of MiFID II, an investment firm that engages in algorithmic trading to pursue a market making strategy shall enter into a binding written agreement between the investment firm and the trading venue which shall oblige that firm to carry out this market making continuously during a specified proportion of the trading venue's trading hours providing liquidity on a regular and predictable basis to the trading venue.
5. ESMA considers that market making agreements and market making strategies are subject to the same set of requirements: where a firm is considered to be performing a market making strategy in a venue, the trading venue must have in place a market making agreement with that investment firm where the investment firm would formalise its activity. As a consequence, the requirements in Articles

¹⁰⁵ See Findings regarding the market events of May 6, 2010. Report of the staffs of the CFTC and SEC to the Joint Advisory Committee on Emerging Regulatory Issues, available in <http://www.sec.gov/news/studies/2010/marketevents-report.pdf>

17 and 48 of MiFID II in terms of market making agreements are correlated and should be addressed jointly.

Q258: Do you agree with the previous assessment? If not, please elaborate.

Article 17 of MiFID II: Circumstances in which an investment firm would be obliged to enter into the market making agreement

Background/Mandate/Empowerment

Article 17(7)(b), MiFID II

ESMA shall develop draft technical standards to specify the following:

“the circumstances in which an investment firm would be obliged to enter into the market making agreement referred to in point (b) of paragraph 3 and the content of such agreements, including the proportion of the trading venue’s trading hours laid down in paragraph 3.”

Analysis

6. ESMA has identified at least three different concepts of market making in the regulation:
 - i. Article 4(1)(7) of MiFID II describes a market maker as “a person who holds himself out on the financial markets on a continuous basis as being willing to deal on own account by buying and selling financial instruments against that person’s proprietary capital at prices defined by that person”;
 - ii. Article 17(4) of MiFID II further explains that an algorithmic trading firm should be considered as pursuing a ‘market making strategy’ for the purposes of Articles 17 and 48 “*when, as a member or participant of one or more trading venues, its strategy, when dealing on own account, involves posting firm, simultaneous two-way quotes of comparable size and at competitive prices relating to one or more financial instruments on a single trading venue or across different trading venues, with the result of providing liquidity on a regular and frequent basis to the overall market*”;
 - iii. the current Article 17(4) of MiFID II is partly aligned with the definition of market making activities included in Article 2(1)(k) of the Short Selling Regulation that was clarified by ESMA Guidelines on market making activities and primary market operations under Regulation (EU) 236/2012 on short selling¹⁰⁶.

7. On that basis, there are a number of preliminary comments that should be made.

¹⁰⁶ Article 2(1)(k) of the Short Selling Regulation states market making activities as not only posting firm, two-way quotes of comparable size at competitive prices with the result of providing liquidity on a regular and ongoing basis to the market, but also by fulfilling orders initiated by clients or in response to client requests to trade, and by hedging position in relation to either of these activities.

8. Firstly, Recital 60 of MiFID II indicates that the references to ‘market making strategy’ should be understood in a way specific to its context and purpose. Along the same line, Article 17(4) of MiFID II is only applicable for the purposes of Articles 17 and 48 of MiFID II. The points made below with respect to ‘market making’ should not be expanded beyond the limits of these two articles¹⁰⁷.
9. Secondly, ESMA considers it relevant to note that Article 17(4) of MiFID II is based on the idea of ‘strategy’. As empirical studies have found¹⁰⁸, many firms operate algorithmic and high frequency trading systems to actually deploy a number of different strategies simultaneously, each of which generates signals to buy or sell various instruments with various constraints on what constitutes an acceptable price, quantity and deadline by which the transaction should be executed.

Proposal

10. Therefore, the type of strategy to be captured under Article 17(4) of MiFID II should only be considered on the basis of the external elements described below: posting firm, simultaneous two-way quotes of comparable size and at competitive prices relating to one or more financial instruments on a single trading venue or across different trading venues, with the result of providing liquidity on a regular and frequent basis to the overall market.
11. On that basis, ESMA would be keen to know the views of market participants on what would be an appropriate observation period to determine whether an investment firm should fall under the definition of Article 17(4) of MiFID II (e.g. 3 months, 6 months, one year...) and also for how long within that observation period should a firm be meeting the requirements described below.

Q259: Do you agree with the preliminary assessments above? What practical consequences would it have if firms would also be captured by Article 17(4) MiFID II when posting only one-way quotes, but doing so in different trading venues on different sides of the order book (i.e. posting buy quotes in venue A and sell quotes in venue B for the same instrument)?

Q260: For how long should the performance of a certain strategy be monitored to determine whether it meets the requirements of Article 17(4) of MiFID II?

Q261: What percentage of the observation period should a strategy meet with regard to the requirements of Article 17(4) of MiFID II so as to consider that it should be captured by the obligation to enter into a market making agreement?

On what should be considered as “member or participant”

¹⁰⁷ See for instance paragraph 45 of ESMA Guidelines on the definition of market making for Short Selling purposes: “ESMA will take into account of the outcome on MiFIR and MiFID on the market making definition in order to ensure consistency of the European regulations. ESMA will continue to monitor developments in the market and may reconsider the defined qualifying criteria in the future”.

¹⁰⁸ *Market making obligations and algorithmic trading systems. A feasibility assessment of the March 2012 draft of MiFID II Article 17(3)*, Economic Impact Assessment EIA19, Foresight, UK Government Office for Science. Available in <http://www.bis.gov.uk/assets/foresight/docs/computer-trading/12-1078-cia19-market-making-obligations-and-algorithmic-trading-systems.pdf> ¹⁰⁸ As explained above, ESMA’s preliminary view is that the requirements on market making aim at addressing the problems that may arise in relation to liquid instruments. Thus, ESMA departs from the Guidelines on the exemption for market making activities and primary market operations under the Short Selling Regulation in not considering non-liquid instruments.

12. In line with the Guidelines on the definition of market making activities for Short Selling purposes, the MiFID II concept is based on the pre-requisite of any form of membership of at least one trading venue, i.e. a direct contractual relationship between the firm and the trading venue whereby the firm is enabled to submit orders to be executed in the trading venue. Clients of investment firms, accessing the market indirectly, for example, through a DEA arrangement, are not a member or participant of a trading venue in the sense of Article 17(4) MiFID II and ESMA does not consider that such indirect participants could be forced to enter into a direct contractual relationship with the trading venue.
13. As a consequence, ESMA considers that such indirect participants would be excluded from being considered as a firm pursuing a market making strategy under Article 17(4) of MiFID II.

Q262: Do you agree with the above assessment?

On the interpretation of “posting firm quotes”

14. In principle, a quote is firm as long as it is executable, i.e. can be matched against an opposite order under the rules of the different trading venues.

Q263: Do you agree with this interpretation?

On the interpretation of “posting simultaneous two-way quotes in one or more trading venues relating to one or more financial instruments”

15. A market making strategy must involve posting firm, simultaneous two-way quotes of comparable size and at competitive prices relating to one or more financial instruments on a single trading venue or across different trading venues. It is possible that this could be interpreted to mean that strategies such as the following could be considered as a market making strategy:
 - i. a strategy where one side of the same financial instrument is executed on one venue and the other side on a venue where the same instrument is traded;
 - ii. a strategy like (i) above but in comparable financial instruments (e.g. equity and equity option); and
 - iii. a strategy like (i) above but in a wider range of instruments (e.g. buying the equities that are constituents of an index on one trading venue while selling the index future).
16. While all the above strategies add a level of liquidity to the market, imposing detailed market making agreements on firms operating those strategies might have a detrimental impact on the ability to trade those strategies. These strategies could not exist in their current format as they would require a two-way quote in each instrument. The alternative is to permit one-way market making agreements that could theoretically allow investment firms to trade the above strategies, but given the variance of alternative strategies that may have characteristics of one or more of the above options, there would therefore be a need for constantly updated regulations on what versions of these strategies could be market making strategies or not.
17. ESMA’s preliminary view is that the definition of market making strategy only contains strategies where an investment firm operates a firm, simultaneous two-way quote in at least one financial instrument on a single trading venue.

Q264: Do you agree with the above assessment? If not, please elaborate.

18. Article 17(4) of MiFID II establishes that these orders have to be simultaneous. Whereas in principle this concept does not leave much room for interpretation, this requirement depends heavily on external factors such as an effective clock synchronisation that should arrive in due course.
19. ESMA is also aware that establishing a too narrow basis to assess the simultaneity of the quotes posted would facilitate avoidance of the regulation.
20. On that basis, ESMA's preliminary view is that the requirement of "simultaneity" should only be assessed on a per second basis, i.e. the quotes should be in both sides of the order book at the same second.

Q265: Do you agree with the above interpretation?

On 'comparable size'

21. ESMA's preliminary view is that the main purpose of the strategies that would now fall under the "market making strategies" is gaining the spread, reducing as much as possible the exposure at the end of the trading day.
22. However, the co-existence of different strategies within the same firm and the use of order management systems to optimise them makes seeking an absolute co-relation between the orders posted on both sides irrelevant. Therefore, ESMA is considering making an assessment of this parameter on the basis of the overall exposure of the firm on an ongoing basis.
23. ESMA acknowledges that the actions of individual strategies may simply not be observable from a viewpoint external to the firms that are operating those strategies, because a significant portion of the activity of individual strategies is masked by each firm's order management system.

Q266: Do you agree with the above proposal?

On 'competitive prices'

24. ESMA is considering following, regarding this point, the Guidelines on the exemption for market making activities and primary market operations under the Short Selling Regulation¹⁰⁹:
 - i. the prices should be within the maximum bid/offer spreads that are required from market makers recognised under the rules of the trading venue where they are posted for the concerned instruments. In cases where that trading venue does not provide for rules on maximum bid/offer spreads for recognised market makers, reference can be made to the requirements laid down in the rules for recognised market makers by another trading venue where the concerned instrument is actively traded. Where this alternative is not possible, as a last resort, competitive price should be measured as a proportion of the average spread observed on the concerned instrument in the venue where the instrument is traded; and

¹⁰⁹ As explained above, ESMA's preliminary view is that the requirements on market making aim at addressing the problems that may arise in relation to liquid instruments. Thus, we depart from the Guidelines on the exemption for market making activities and primary market operations under the Short Selling Regulation in not considering non-liquid instruments.

- ii. the bid-ask range posted by the person conducting a market making strategy can be asymmetrical, that is to say that it can be moved away from the central point of the market bid-ask range being posted for the relevant financial instrument. The competitiveness of the prices can therefore be different on bid and ask at a given time according to the directional side of its strategy, as long as the firm using a market making strategy complies with the aim of providing liquidity to the market. In any case, the potential asymmetry should not result in either the bid or the ask price not being competitive.

Q267: Do you agree with the above proposal?

Articles 48 and 17 of MiFID II: Minimum market making obligations and in particular: Organisational requirements for investment firms performing a market making strategy; the content of market making agreements; proportion of the trading venue's trading hours that the market making strategy should be active

Background/Mandate/Empowerment

Under Article 48(12)(f), MiFID II

ESMA shall develop draft regulatory technical standards further specifying: to establish minimum market making obligations that regulated markets must provide for when designing a market making scheme.

Under Article 17(7), MiFID II

ESMA shall develop draft regulatory technical standards to specify the following:

“ _ the details of organisational requirements laid down in paragraphs 1 to 6 to be imposed on investment firms providing different investment services and/or activities and ancillary services or combinations thereof; and

_ the content of such agreements, including the proportion of the trading venue's trading hours laid down in paragraph 3;

_ the situations constituting exceptional circumstances referred to in paragraph 3, including circumstances of extreme volatility, political and macroeconomic issues, system and operational matters, and circumstances which contradict the investment firm's ability to maintain prudent risk management practices as laid down in Article 17(1)”

Minimum market making obligations (Article 48, MiFID II) /content of the market making agreement (Article 17, MiFID II)

Analysis

25. Article 48(2) of MiFID II determines that “Member States shall require a regulated market have in place written agreements with all investment firms pursuing a market making strategy on the regulated market” and “schemes to ensure that a sufficient number of investment firms participate in such agreements which require them to post firm quotes at competitive prices with the result of providing

liquidity to the market on a regular and predictable basis, where such a requirement is appropriate to the nature and scale of the trading on that regulated market”.

26. In parallel, Article 17(3) of MiFID II establishes that “an investment firm that engages in algorithmic trading to pursue a market making strategy shall:
- i. carry out this market making continuously during a specified proportion of the trading venue’s trading hours, except under exceptional circumstances, with the result of providing liquidity on a regular and predictable basis to the trading venue;
 - ii. enter into a binding written agreement with the trading venue which shall at least specify the obligations of the investment firm in accordance with point a; and
 - iii. have in place effective systems and controls to ensure that it fulfils its obligations under the agreement referred to in point b at all times, taking into account the liquidity, scale and nature of the specific market and the characteristics of the instrument traded.”

Proposal

27. ESMA considers setting principles which apply to all types of market making scheme rather than specific ‘hard-coded’ conditions.

Common requirements for all firms entered into a market making agreement

28. The main elements that should be included in the requirements for firms engaged in a market making scheme would be quoting requirements and organisational requirements.

Quoting requirements:

29. On the basis of a limited fact-finding exercise undertaken by ESMA in 2013, it was noted that the main parameters to be considered in the current market making/liquidity provision agreements are maximum spread of the quotes (usually on a percentage basis from the best bid and offer), minimum quotation value (i.e. the smallest permissible value on both bid and offer), and presence (for example, 80% of the trading hours).
30. Taking into account the variety of trading and business models in Europe, ESMA is considering preparing a minimum non-exhaustive list of quoting parameters which would leave room for trading venues to design the most adequate market making agreement according to the instruments traded, their trading and business model.
31. However, any parameters designed by trading venues in their market making agreements must provide additional stability to the market and reduce the possibility of disorderly trading conditions. ESMA is keen to know the views of market participants regarding what these parameters should be.

Q268: Do you agree with the approach described (non-exhaustive list of quoting parameters)?

Q269: What should be the parameters to assess whether the market making schemes under Article 48 of MiFID II have effectively contributed to more orderly markets?

Organisational requirements

32. The organisational requirements on investment firms participating in a market making agreement should be the same, irrespective of whether that firm is participating in a market making agreement because it is performing a market making strategy or by virtue of a market making scheme.
33. These organisational requirements should ensure that the investment firm is able to demonstrate to the competent authorities that it complies with all the requirements laid down in Article 17(1) to (7) and in Article 48(2) of MiFID II, and in particular:
 - i. there is adequate monitoring of the market making strategy; and
 - ii. it enables investment firms to take any appropriate action where unpredictable behaviour of the market making strategy occurs, especially where it has a detrimental effect on the market.
34. Accordingly, an investment firm pursuing a market making strategy (and therefore, participating in a market making agreement) should, as a minimum:
 - i. be able to separately identify its orders under the market making strategy from other order flow (e.g. client flow);
 - ii. maintain records of orders and transactions relating to its market making activities so that it can easily distinguish them from its other proprietary activities;
 - iii. establish and implement internal procedures with respect to the market making activities that allow the immediate identification of these activities and the immediate availability of the records to the competent authority upon request;
 - iv. possess appropriate and effective surveillance, compliance and audit resources and a framework to enable an adequate monitoring of the market making activities (alerts, indicators);
 - v. put in place mechanisms which seek to prevent any market disruption or any significant price deviation due to a malfunction of the algorithmic trading facility;
 - vi. establish and implement an emergency device that allows, if necessary, a manual stop of the algorithmic trading activities so that an investment firm's trading system stops sending orders to the market and all outstanding orders are cancelled ("kill switch");
 - vii. establish remuneration schemes for its staff dedicated to the market making activity which do not:
 - a. incentivise disproportionate risk taking;

- b. impede compliance with the obligation of the firm to act in the best interests of clients; and
 - c. encourage non-compliance with the market making scheme.
- viii. provide direct or indirect access to relevant clearing and settlement systems; and
- ix. commit to settle, close or transfer all open positions to another member in case of retreating from the market.

Q270: Do you agree with the list of requirements set out above? Is there any requirement that should be added / removed and if so why?

Proportion of trading venue's trading hours where a market making strategy should be active

35. Article 17(3) of MiFID II mandates investment firms that engage in algorithmic trading to pursue a market making strategy, taking into account the liquidity, scale and nature of the specific market and the characteristics of the instrument traded, to carry out this market making continuously during a specified proportion of the trading venue's trading hours, except under exceptional circumstances, with the result of providing liquidity on a regular and predictable basis to the trading venue.
36. ESMA undertook a limited fact-finding exercise which showed that similar market making obligations currently available in trading venues (i.e. liquidity provision schemes for liquid instruments) usually require a presence of 80%-90% of the trading time with additional size and spread obligations. While these requirements vary according to the financial instrument traded and the venue's purpose for the individual scheme, most of these market making schemes are equity based.
37. ESMA Guidelines on the exemption for market making activities and primary market operations under Regulation (EU) 236/2012 on short selling and certain aspects of credit default swaps¹¹⁰ consider that for liquid shares, market making is taking place on a regular and ongoing basis when it is performed for at least 80% of the overall trading time on a monthly or daily basis.

¹¹⁰ <http://www.esma.europa.eu/system/files/2013-74.pdf>

Q271: Please provide views, with reasons, on what would be an adequate presence of market making strategies during trading hours?

Q272: Do you consider that the average presence time under a market making strategy should be the same as the presence time required under a market making agreement ?

Q273: Should the presence of market making strategies during trading hours be the same across instruments and trading models? If you think it should not, please indicate how this requirement should be specified by different products or market models?

Q274: Article 48(3) of MiFID II states that the market making agreement should reflect “where applicable any other obligation arising from participation in the scheme”. What in your opinion are the additional areas that that agreement should cover?

Exceptional circumstances which contradict the firm’s ability to maintain prudent risk management practices

Background/Mandate/Empowerment

Article 17(7)(c), MiFID II

Mandates ESMA to develop draft regulatory technical standards to determine:

“the situations constituting exceptional circumstances referred to in paragraph 3, including circumstances of extreme volatility, political and macroeconomic issues, system and operational matters, and circumstances which contradict the investment firm’s ability to maintain prudent risk management practices as laid down in paragraph 1”.

Analysis

38. ESMA’s interpretation of what constitutes “exceptional circumstances” for market making strategies relates to the role and position of those market making strategies in general vis-a-vis the market and their counterparties: by continuously posting firm, simultaneous two-way quotes of comparable size and at competitive prices, investment firms that engages in algorithmic trading to pursue a market making strategy are exposed to significant risks that they need to mitigate in order to perform these activities.

39. More specifically the following considerations are relevant:

- i. market makers are highly dependent upon the accuracy of the market data upon which they base their quotes, and on the basis of which they manage their inventory. This market data includes both direct trade feeds as well as a range of additional data sets that provide assurance that the trade data is indeed correct, and that the market maker has a correct view of their inventory, market exposure, and margin requirements. Unreliable market data feeds may prevent effective market making in the market;
- ii. market making requires the commitment of proprietary capital of the firm, which can be leveraged upon the basis of the specifications of the firm’s contract with their clearing member and

trade finance provider. Significant issues with the availability of trade capital or margin may therefore prevent the market maker being present in the market; and

- iii. as is the case with all professional market participants, market makers are highly reliant on the correct functioning of their operational, technological, and physical systems. When any doubt exists as to their proper functioning, this may prevent them from being able to be present in the market.
40. All of the above does not ignore the fact that it is the responsibility of the market maker to make sure it does its utmost to mitigate the relevant risks, in particular by ensuring that it has adequate systems and controls and risk management measures in place in relation to its market making activities.

Proposal

41. ESMA has identified the following events that may qualify as ‘exceptional circumstances’ for the purposes of Article 17(3) of MiFID II:
- i. technological issues including problems with a data feed or other system that is essential in order to be able to carry out a market making strategy; and
 - ii. internal risk management issues, which would encompass problems in relation to capital or clearing.
42. In principle new information (e.g. reporting events or new fundamental information) becomes available, it may give rise to significant and unexpected price movements, leading the operator of a market making strategy to suspect that the prices (buy and sell) it is posting no longer reflect the fundamental supply and demand characteristics in relation to the instrument it is trading (i.e. incompleteness of information between the market maker and other market participants, which allow these market participants to exploit the market maker’s outstanding quotes). Against considering this as an exceptional circumstance, it can be argued that market makers should be the most responsive participants and their market making quotes should be based on all information events. It might be difficult as well determining which information events are included and which ones are excluded.

Q275: Do you disagree with any of the events that would qualify as ‘exceptional circumstances’? Please elaborate.

Q276: Are there any additional ‘exceptional circumstances’ (e.g. reporting events or new fundamental information becoming available) that should be considered by ESMA? Please elaborate.

Q277: What type of events might be considered under the definition of political and macroeconomic issues?

Q278: What is an appropriate timeframe for determining whether exceptional circumstances no longer apply?

Q279: What would be an appropriate procedure to restart normal trading activities (e.g. auction periods, notifications, timeframe)?

Requirements for trading venues which have a market making scheme in place

43. ESMA's preliminary view is that the following requirements should be met by trading venues having market making schemes in place:
- i. trading venues should ensure that the market making schemes in place under Article 48 of MiFID II do not portray a misleading impression of the liquidity available in that venue. In particular, this means that trading venues should ensure that for the type of instruments addressed by Articles 48 and 17 of MiFID II, the liquidity existing within their market does not result exclusively or quasi-exclusively from the market making activity of the firms participating in the market making schemes especially, as far as liquid instruments are concerned. To that end, the overall proportion of the liquidity provided by the firms acting under a market making scheme should be and remain (ceiling) in consideration of the size, spread and presence parameters of the scheme. In order to monitor this liquidity, trading venues should always be in a position to identify the volume of trades resulting from orders placed by firms acting under a market making scheme;
 - ii. trading venues should be able to prevent access at member level and / or connection level, as well as have the ability to delete orders in the market and delete transactions that have occurred;
 - iii. trading venues must have publicly available information in relation to the compliance of investment firms participating in a market making scheme including the repercussions for those investment firms not in compliance; and
 - iv. trading venues should publicly disclose the identities of the market makers.

Q280: Do you agree with this approach? If not, please elaborate.

Fair and non-discriminatory market making schemes

Background/Mandate/Empowerment

Article 48(12)(f), MiFID II

ESMA shall develop draft regulatory technical standards further specifying:

“- the requirements to ensure that market making schemes are fair and non-discriminatory”

Proposal

44. ESMA's preliminary view is that all market participants should have the opportunity to access the market making schemes on an equal basis, as long as they meet the requirements set out in advance by the trading venue. The same performance should be rewarded equally.

45. When establishing market making schemes for illiquid instruments, some trading venues have established technological or informational advantages for the liquidity provider¹¹¹. ESMA is keen to know the views of market participants on whether this type of advantages would fit into the ‘fair and non-discriminatory’ concept when applied to liquid instruments.

Q281: Would further clarification be necessary regarding what is “fair and non-discriminatory”? In particular, are there any cases of discriminatory access that should be specifically addressed?

Q282: Would it be acceptable setting out any type of technological or informational advantages for participants in market making schemes for liquid instruments? If yes, please elaborate.

Q283: In which cases should a market operator be entitled to close the number of firms taking part in a market making scheme?

Article 48 MiFID II: Conditions under which the requirement to have in place a market making scheme is not appropriate

Background/Mandate/Empowerment

Article 48(12)(f), MiFID II

ESMA should develop draft regulatory technical standards further specifying:

“(…) the conditions under which the requirement to have in place a market making scheme is not appropriate, taking into account the nature and scale of the trading on that regulated market, including whether the regulated market allows for or enables algorithmic trading to take place through its systems.”

Analysis

46. Currently there are two main types of market making activity in evidence¹¹²:

- i. those offered/subsidised by the issuer for instruments recently issued or which do not have a sufficient degree of liquidity (in some cases the issuer has to sign this type of contract so as to be listed¹¹³); and
- ii. those offered and subsidised by the trading venue, whose main purpose is to enhance the quality and efficiency of price formation, so that there are multiple competitive price pictures in the order book attracting liquidity to that venue.

¹¹¹ An example of this type of advantages would be the Designated Primary Market Makers on the Chicago Board Options Exchange, which had exclusive knowledge of the order book.

¹¹² In fact, there is a plethora of different market-making and liquidity provision schemes. See Weaver, *Minimum obligations for market makers*, Economic Impact Assessment ELA8, Foresight, UK Government Office for Science, available in <http://www.bis.gov.uk/assets/foresight/docs/computer-trading/12-1069-eia8-minimum-obligations-of-market-makers.pdf>

¹¹³ Foresight’s document refers to the Xetra case, where firms below a certain degree of liquidity are required to contract with at least one MMer called a designated sponsor.

47. Empirical work¹¹⁴ indicates that high frequency traders tend to trade liquid stocks with high market value ('blue chips') that could be captured by including volumes and spreads as potential drivers of HFT activity. A positive correlation between HFT and fragmentation has been detected. Market makers for illiquid instruments also fulfill an important role in illiquid markets in order to bridge the time gap before a buyer/seller for the instrument is found and ESMA is also aware that some algorithmic trading is also present in illiquid instruments to a lesser extent. However, in the context of Recital 62, ESMA considers that the requirement to have a market making scheme has to be applied to those liquid instruments which do not have sufficient market making agreements in place to provide sufficient coverage against disorderly trading conditions.
48. It is relevant to note that ESMA's view in this respect does not prejudice the ability of trading venues to deploy any other type of liquidity support structure as they consider appropriate in light of their business model.
49. In principle, ESMA considers that the assessment of the liquidity/illiquidity of an instrument should be made according to the requirements set out in Article 2(1)(17) of MiFIR.
50. Finally, it is relevant to consider how many firms should be engaged in a market making scheme. Article 48 of MiFID II makes a clear distinction: whereas it is compulsory for the trading venue to have an agreement with all investment firms performing a market making strategy, the market making schemes should ensure that a sufficient number of investment firms are engaged in those agreements.
51. At the same time, it has to be considered which percentage of the liquidity offered in a certain venue may come from firms engaged in market making agreements, i.e. whether above a certain market share provided by firms engaged in market making agreements, it would be appropriate to operate a market making scheme.

Proposal

52. ESMA believes that the purpose of Article 48 of MiFID II (and the correlated obligations in Article 17 of MiFID II) is to reduce the impact of potentially systemic volatility peaks in instruments where algorithmic traders are present. ESMA's preliminary view is that trading venues should have a market making scheme in place only for liquid instruments which do not have a sufficient number of market making agreements in place to provide sufficient coverage against disorderly trading conditions.
53. ESMA requests the views of market participants on the degree of flexibility that trading venues should have in determining how many participants should be in the market making scheme. In other words, in which cases might the addition of more participants to a market making scheme be detrimental to achieve the objectives set out in Article 48 and Recital 44 of MiFID II.
54. ESMA also requests the views of market participants about:
 - i. what would be deemed a sufficient number of investment firms participating in a market making agreement as this determines whether trading venues must offer a market making scheme or not.

¹¹⁴ "High frequency trading activity in EU equity markets", Antoine Bouveret, in ESMA's Report on Risk, Trends and Vulnerabilities, 2014 available in http://www.esma.europa.eu/system/files/2014-0312_trends_risks_vulnerabilities.pdf

For example, one possible solution would be that trading venues must offer a market making scheme in liquid instruments where there is no / few market making strategy(ies) being pursued and therefore no / few market making agreements;

- ii. the market share that, at most, should be offered under market making agreements, and beyond which, it would be inappropriate to have a market making scheme in place.

Q284: Do you agree that the market making requirements in Articles 17 and 48 of MiFID II are mostly relevant for liquid instruments? If not, please elaborate how you would apply the requirements in Articles 17 and 48 of MiFID II on market making schemes/agreements/strategies to illiquid instruments.

Q285: Would you support any other assessment of liquidity different to the one under Article 2(1)(17) of MiFIR? Please elaborate.

Q286: What should be deemed as a sufficient number of investment firms participating in a market making agreement?

Q287: What would be an appropriate market share for those firms participating in a market making agreement?

Q288: Do you agree that market making schemes are not required when trading in the market via a market making agreement exceeds this market share?

Q289: In which cases should a market operator be entitled to close the number of firms taking part in a market making scheme?

4.5. Order-to-transaction ratio (Article 48 of MiFID II)

Background/Mandate/Empowerment

Article 48(12)(b), MiFID II

ESMA shall develop draft regulatory technical standards further specifying:

[...]

(b) the ratio referred to in paragraph 6, taking into account factors such as the value of unexecuted orders in relation to the value of executed transactions;

1. Article 48(6) of MiFID II requires regulated markets to have in place effective systems, procedures and arrangements, (...), to ensure that algorithmic trading systems cannot create or contribute to disorderly trading conditions on the market and to manage any disorderly trading conditions which do arise from such algorithmic trading systems, including systems to limit the ratio of unexecuted orders to transactions that may be entered into the system by a member or participant (...).

Definition of OTR

2. An Order-to-Transaction Ratio (OTR) is generally defined as the total number of orders divided by the total number of transactions executed.
3. ESMA considers that ‘orders’ under any OTR regime should comprise all the messages related to an order (submission, price and volume modifications and deletion).

Q290: Do you agree with the types of messages to be taken into account by any OTR?

Factors to be considered when determining the OTR

4. An OTR defined only on the basis of the number of orders may easily be circumvented by executing technical trades or by adapting the size and number of aggressive orders so as to artificially adjust the number of executed transactions towards the end of the observation period. Those possibilities of gaming¹¹⁵ are considerably reduced by also calculating the OTRs taking into account the value and/or the volume of the orders.

¹¹⁵ The examples presented below illustrate how differently the OTRs vary depending on the factors taken into account in their calculation. These examples are based on the following scenario:

(i) a member of an electronic trading venue submits one order for 200 shares at 15 that is partially executed for 20 shares at 15 and cancels the balance of the order.

(ii) He then sends one order for 450 shares at 10 that is not executed.

(iii) He then sends one order for 10 shares that is immediately executed at 16.

(iv) He then crosses in the market 200 shares at 15.5.

i. After (i), the OTR calculated on the basis of the number of orders is **2** (2/1). The OTR on the basis of the volume is **10** (200/20). The OTR on the basis of the value is **10** (3,000/300).

ii. After (ii), the OTR calculated on the basis of the number of orders is **3** (3/1). The OTR on the basis of the volume is **32.5** (650/20). The OTR on the basis of the value is **23.33** (7,000/300).

5. On the basis of this analysis and the Level 1 text, ESMA considers that the OTR should take into account:
- i. the total number of orders divided by the total number of transactions executed; and
 - ii. the relative weight of orders and transactions in terms of value (turnover); and/or
 - iii. the relative weight of orders and transactions in terms of volume (number of shares or contracts).

Q291: What is your view in taking into account the value and/or volume of orders in the OTRs calculations? Please provide:

- i. **reasoning for your opinion;**
- ii. **the pros and cons of taking those parameters into account; and**
- iii. **an indication of a possible methodology to factor in value and/or volume.**

Q292: Should any other additional elements be taken into account to calibrate OTRs? If yes, please provide an explanation of why these variables are important.

Scope in terms of instruments

6. Empirical work indicates that high frequency traders tend to trade liquid stocks with high market value ('blue chips') and the risks described in Recital 62 of MiFID II (overloading of trading venues' systems due to large volumes or orders, duplicative or erroneous orders or otherwise malfunctioning in a way that may create disorderly market) are more likely to arise in relation to techniques characterised by high message rates in electronic trading systems.
7. As a consequence, it is considered that the instruments deemed as liquid under Article 2(1)(17) of MiFIR should be focussed on for the purpose of the OTR regulatory technical standards under MiFID II.
8. Within that category of liquid instruments, it would be possible to differentiate between cash instruments and financial instruments which reference other instruments (such as derivatives and certain types of ETFs).
9. Considering the empirical findings mentioned above, ESMA's preliminary view is that it may be sufficient to determine the OTR for cash instruments (considering within this category bonds, equity and equity-like instruments) that are traded on electronic trading venues, since any change in the OTR of the underlying (or any regulatory change thereof) would affect the observed OTR of its derivatives.

iii. After (iii), the OTR calculated on the basis of the number of orders is back to **2** (4/2). The OTR on the basis of the volume is **22** (660/30). The OTR on the basis of the value is **15.56** (7,160/460).

iv. After (iv), the OTR calculated on the basis of the number of orders is down to **1.5** (6/4). The OTR on the basis of the volume is **2.41** (1,060/440). The OTR on the basis of the value is **2.01** (13,360/6,660).

10. Since these scope considerations are only covering RTS on the OTR regime under MiFID II, this does not prevent any trading venue developing a specific OTR regime for derivatives and ETFs should it deem it appropriate.

Q293: Do you agree with the proposed scope of the OTR regime under MiFID II (liquid cash instruments traded on electronic trading systems)?

Q294: Do you consider that financial instruments which reference a cash instrument(s) as underlying could be excluded from the scope of the OTR regime?

Q295: Would you make any distinction between instruments which have a single instrument as underlying and those that have as underlying a basket of instruments? Please elaborate.

Scope in terms of venues covered

11. In establishing an OTR, the differences between trading venues (notably in terms of trading activity and size) for the purpose of fair competition throughout the EU should be considered.
12. ESMA further considers that the OTR regime has to take into account the case of new trading venues and believes that a “one-size-fits all” OTR threshold would be detrimental to new entrants by stifling competition amongst trading venues. If the OTR regime were to be applied to a newly launched trading venue, which should on its first operational days show about the same spread as that of its competitors while having only a few transactions executed in its market, the new venue might be in an uncompetitive position against the other venues. In order to allow new trading venues to enter the EU market under fair competition conditions, the OTR should be elaborated per trading venue and should only be applied to those trading venues which have had a presence in the market for a defined period. At the same time, ESMA is concerned about the potential regulatory arbitrage that may arise if different OTR thresholds are applied to the same instrument traded in several trading venues.
13. On that basis, ESMA is considering basing its proposal on the observed OTR of those electronic trading venues that have had a presence in the market for a defined period. ESMA would like to know the views of market participants about regarding what would be a sufficient period for newly established trading venues.

Q296: Do you agree with considering within the scope of a future OTR regime only trading venues which have been operational for a sufficient period in the market?

Q297: If yes, what would be the sufficient period for these purposes?

How to calculate the OTR threshold

14. It is important to note that the observed OTR includes all orders submitted, modified or cancelled by any market member, participant or user, whether they have a special regime, an exemption from breaching the OTR, a special allowance or not. ESMA is also considering whether or not a trading venue may apply a floor established by ESMA, expressed as a percentage of the overall number of messages sent to that trading venue, under which members would not be concerned by the OTR regime, meaning that the regime would not be applicable to their members with the lowest levels of messaging.

Q298: What is your view regarding an activity floor under which the OTR regime would not apply and where could this floor be established?

15. In light of the above discussion and as per the Level 1 mandate, ESMA proposes to consider the average OTR observed on a given electronic trading venue (provided that it has a long-enough track record of observable OTR) per group of instruments (for instance, those defined as the instruments falling within the same liquidity band under the applicable tick size table), and to establish that the OTR threshold for that venue should be capped at a certain multiplier x^{116} of the average observed OTR of its market members.
16. The multiplier (x) should be set up and reviewed at least on an annual basis. ESMA also considers that whenever multiplier x is being modified at any given annual observation point, it should be ensured that the application of the modified multiplier x does not result in the new OTR threshold being greater than the highest market member's OTR observed for the preceding observation period.
17. In ESMA's view, this proposal allows trading venues that have already implemented more granular approaches and limits on a per instrument basis to continue to have them in place. In particular, ESMA considers that the proposal above would not affect the ability of trading venues to determine the OTR:
 - i. in a more stringent manner for the instruments included within the scope; and
 - ii. for instruments not included within the scope, such as derivatives, ETFs.

Q299: Do you agree with the proposal above as regards the method of determining the OTR threshold?

Q300: In particular, do you consider the approach to base the OTR regime on the 'average observed OTR of a venue' appropriate in all circumstances? If not, please elaborate.

Q301: Do you believe the multiplier x should be capped at the highest member's OTR observed in the preceding period?

Q302: In particular, what would be in your opinion an adequate multiplier x ? Does this multiplier have to be adapted according to the (group of) instrument(s) traded? If yes, please specify in your response the financial instruments/market segments you refer to.

Q303: What is your view with respect to the time intervals/frequency for the assessment and review of the OTR threshold (annually, twice a year, other)?

Market making exemptions

18. The OTR threshold should be set up in a way which would not hinder the trading model/activity of market making participants. For instance, a low OTR threshold may penalise the arbitrage and mar-

¹¹⁶ Where x being 1 would permit as a maximum the average OTR observed in the trading venue, x being a figure above 1 would allow a higher OTR than the average OTR of the trading venue ($1 + \text{standard deviation}$) and x being a figure below 1 would restrict the OTR of the trading venue with respect to the observed OTR.

ket making activities which necessitate frequent quote adjustments and may also deter market participants from entering passive orders to the detriment of price formation efficiency. Currently, most trading venues with market-making schemes in place exempt or provide special allowances to market makers and liquidity providers submitting executable quotes from being subject to any OTR being applied.

19. ESMA is considering whether the future OTR regime should preserve this market practice for firms engaged in a market making agreement under Articles 17 and 48 of MiFID II.
20. At this stage, three possibilities have been singled out:
 - i. maintain the current practice consisting in requiring market makers and other liquidity providers to be subject to the OTR; or
 - ii. maintain the current practice consisting in granting an exemption or special allowances to market makers and other liquidity providers from the OTR; or
 - iii. calculate an OTR that excludes the trading activity of market makers and other liquidity providers and apply that OTR regime to all other market members (non-market makers and other non-liquidity providers).

Q304: What are your views in this regard? Please explain.

Breach of mandatory OTR¹¹⁷

21. Most EU trading venues have mechanisms in place to make sure that their systems are resilient and adapted to the flow of message traffic. As part of those arrangements, some venues implement OTRs where, in case of members'/market participants' non-compliance with the ratio, an economic penalty/fee will be applied by the venues.
22. ESMA's preliminary view is that an OTR regime has to be read in conjunction with fee structures, i.e. any breach of the mandatory OTR should be managed by all trading venues in such a way that the following principles apply:
 - i. trading venues shall put in place effective measures to detect any breach of the mandatory OTR;
 - ii. trading venues shall establish economic penalties that are effectively deterrent and ensure that these penalties are adequately and effectively implemented. Although not prohibited¹¹⁸, ESMA does not envisage that a market participant infringing the mandatory OTR should be prevented from trading but expects that participant to be deterred from repeatedly infringing; and
 - iii. trading venues shall keep detailed records on the measures and/or penalties adopted as well as on the monitoring activity carried out on members' and participants' behaviour with respect to OTR.

¹¹⁷ Please note that this section should be read together with the section on fee structures.

¹¹⁸ ESMA does not envisage affecting the current disciplinary powers of trading venues towards their own members.

4.6. Co-location (Article 48(8) of MiFID II)

Background/Mandate/Empowerment

Article 48(12)(d), MiFID II

ESMA shall develop draft regulatory technical standards further specifying:

[...]

(d) the requirements to ensure co-location services [...] are fair and non-discriminatory [...]

1. Article 48(8) of MiFID II sets out that trading venues should ensure that their rules on co-location services are transparent, fair and non-discriminatory.

Analysis

2. A fundamental aspect of this Article is to ensure a level playing field for all users seeking to access the trading venue via co-location services. However, a balance must be maintained between adhering to this principle and ensuring that any conditions on the providers are not overly onerous that they are no longer able to offer such services at commercially viable terms.
3. The issue concerning co-location services could be split into three elements – the level of access to such services, the pricing models used by providers of such services and the technical support that the service providers offer to its users. Each of these elements should be primarily focused on ensuring transparency, fairness and non-discrimination.
4. The level of access offered to the users must be fair. To the extent that such services are made available to the users, this must be made available in a manner that is transparent, fair and non-discriminatory.
5. When deciding whether co-location services are transparent and fair, the pricing of such services must also be considered, primarily whether the pricing models used by providers are applied in a transparent, fair and non-discriminatory manner to all users of the service.
6. Another area of importance is in the level of technical support provided to users of co-location services by the providers. Some users may rely on technical support as provided; other users may wish to access the co-location site in order to service their own connections to the trading venue.

Q305: What factors should ESMA be considering in ensuring that co-location services are provided in a ‘transparent’, ‘fair’ and ‘non-discriminatory’ manner?

4.7. Fee structures (Article 48 (9) of MiFID II)

Background/Mandate/Empowerment

Article 48(12)(d), MiFID II

ESMA shall develop draft regulatory technical standards further specifying:

[...] the requirements to ensure [...] fee structures are fair and non-discriminatory and that fee structures do not create incentives for disorderly trading conditions or market abuse.

1. Article 48(9) of MiFID II states that “Member States shall require that a regulated market ensure that its fee structures including execution fees, ancillary fees and any rebates are transparent, fair and non-discriminatory and that they do not create incentives to place, modify or cancel orders or to execute transactions in a way which contributes to disorderly trading conditions or market abuse. In particular, Member States shall require a regulated market to impose market making obligations in individual shares or a suitable basket of shares in exchange for any rebates that are granted”.
2. It also determines that “Member States shall allow a regulated market to adjust its fees for cancelled orders according to the length of time for which the order was maintained and to calibrate the fees to each financial instrument to which they apply”.
3. “Member States may allow a regulated market to impose a higher fee for placing an order that is subsequently cancelled than an order which is executed and to impose a higher fee on participants placing a high ratio of cancelled orders to executed orders and on those operating a high frequency algorithmic trading technique in order to reflect the additional burden on system capacity”.
4. With regard to non-discriminatory and transparent access to fee structures, in 2011 ESMA undertook a survey involving 26 venues, showing that most exchanges surveyed have fixed fees for membership and related services (e.g. access/port) with additional percentage fees based on volume/value of transactions. Often different fee structures are applied to different asset classes (e.g. equities versus bonds or futures). Almost all trading venues give discounts on volume. Also discounts/rebates on market making/liquidity provision were very common, such that trading fees for market makers/liquidity providers were largely cancelled, whereas only a minority of venues had pure maker/taker schemes. Other trading venues employed schemes to incentivise lit trading, CCP cleared trading or non-persistent orders. Generally, there were no charges for order entry or cancellation/modification; however, a small number of major venues had a surcharge for high order to trade ratios.
5. The IOSCO Report on Trading Fee Models and their Impact on Trading behaviour¹¹⁹ describes findings related to the different trading fee models and structures used by different trading venues around the globe.
6. The IOSCO report concludes that transparency of the trading fees and trading fee models is generally the norm, whether as a result of requirements for transparency or industry practice. ESMA’s preliminary view is in line with that statement.

¹¹⁹ <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD430.pdf>

Fair, non-discriminatory and transparent fee structures

Analysis

7. Commercial arrangements are the responsibility of the parties involved, and therefore regulatory action should only be taken to address specific risks linked to certain fee structures. ESMA is expected to:
 - i. address fee structures that have the potential to incentivise improper trading practices, or pose a risk to orderly trading;
 - ii. address situations where the details of the fee structures are insufficiently transparent or otherwise difficult to comprehend owing to the unreasonable complexity of such structures, such that members, participants or users cannot reasonably foresee or compare the cost of trading; and
 - iii. ensure that all members, participants and users have the ability to access the fee structures on a non-discriminatory basis, as long as they meet the publicly available commercial policy of the trading venue.

Proposal

8. ESMA considers that:
 - i. the fees should be sufficiently granular such that members, participants and users can access and pay for only those services they need. In particular, it should be possible to pay only for services which the client requires, without being required to pay for other bundled services; and
 - ii. a supplier should offer the service at the same price, and terms and conditions, to all members, participants and users who are in the same position according to published, objective criteria. These criteria should allow suppliers to discriminate where it is objectively justified having regard to reasonable commercial grounds such as the quantity, scope or field of use demanded.

Q306: Do you agree with the approach described above?

9. Trading venues offering packages of services, therefore, should ensure that there is sufficient transparency and granularity in the tariffs charged to members, participants or users for the use of different services. To enhance the principle of transparency and to ensure that fee structures are easily accessible, ESMA advises that trading venues should publish their fee structures, including execution fees, ancillary fees and any rebates in one comprehensive document or place on their website.
10. Market participants meeting the requirements set out by the trading venue should be able to access the same fees and rebates. In particular, it should be clear that as long as pre-determined and non-discriminatory objective requirements are met, all market participants should be able to access the same rebates, not just a sub-set of them.

Q307: Can you identify any practice that would need regulatory action in terms of transparency or predictability of trading fees?

Q308: Can you identify any specific difficulties in obtaining adequate information in relation to fees and rebates that would need regulatory action?

Q309: Can you identify cases of discriminatory access that would need regulatory action?

Fee structures that might lead to disorderly trading conditions

Scope of ‘fee structures’ concept

11. ESMA considers that the scope of fee structures under Article 48 of MiFID II encompasses execution fees and those ancillary services which are directly related to membership or participation to a trading venue (e.g. use of terminals, connectivity or access through third party homologated software providers).
12. Post-trade services such as clearing and settlement services would not be considered within the scope of Article 48 of MiFID II and reference should be made to Article 38 of EMIR. In line with that article, any fees charged for combined services (execution, ancillary services and post-trade services) that incorporate a discount scheme should be sufficiently transparent to members, participants and users of the trading venue.
13. In ESMA's view, there are three types of incentives and disincentives that are possible under MiFID II:
 - i. ‘rebate’ as used in MiFID II should be considered as “*refunding by the trading venue a portion of the trading fee charged to the market maker for its market making service*”, i.e. for the addition of liquidity to the order book that do not reflect genuine interest to trade;
 - ii. ‘volume discount’ is a price differentiation scheme for large and active participants: either based on the total trading volume or on the total number of trades. An alternative of this scheme is fee discounts based on the cumulated trading fees per member; and
 - iii. penalties for excessive OTRs, is a monetary amount, in fixed or variable format, that is charged by a trading venue once that venue's OTR is breached. These penalties are an additional charge to account for the operational cost incurred by the trading venue to sustain such an activity.
14. In line with Article 48(9) of MiFID II, ESMA is of the view that rebates should only be allowed as far as they are linked to the provision of specific services (e.g. provision of liquidity provided by a market maker) and these benefits should be determined in the relevant rules of the trading venue, in sufficient granularity to ensure transparency and predictability.

Q310: Are there other incentives and disincentives that should be considered?

On the types of fee structure that may lead to disorderly trading conditions

15. In determining the fee schedule by a trading venue, several structural parameters are considered:

- i. chargeable activity (an activity that triggers a fee): such as the submission, modification or cancellation of orders, and execution;
 - ii. pricing policy: The fee charged could be commensurate to the level of activities (variable fee such as order management fee and high usage surcharge), with the option to establish a floor or caps or could be independent (flat fee such as subscription fee);
 - iii. pricing structure: the venue may decide to bundle or unbundle various ancillary services related to trade execution;
 - iv. discounts and surcharges: many forms of discounts exist, such as discount based on volume or value traded within a set timeframe. Similarly, surcharges could be payable for trades executed in dark pools, for example; and
 - v. rebates and incentives provided by the trading venue to market makers for injecting liquidity into the venue: Separate from the above, this is a payment made by the trading venue to the market makers for services provided in providing liquidity to the venue, thereby incentivising further trades to take place on the venue.
16. ESMA's preliminary view is that all the different schedules that might be designed using the parameters mentioned above are valid and legitimate ways of transferring the costs of trading to the venue's members, participants or users. However, in the context of increasing algorithmic and high frequency trading, ESMA would be keen to know the views of market participants on whether any of the parameters referred to above may contribute to increasing the probability of trading behaviour that may lead to disorderly and unfair trading conditions.

Q311: Do any of the parameters referred to above contribute to increasing the probability of trading behaviour that may lead to disorderly and unfair trading conditions?

17. ESMA aims at identifying specific cases that would need regulatory action.
18. There may be legitimate reasons for a trading venue to establish a fee structure that incentivises trading in a particular way (for instance, incentivising trading in a new financial product at its launch). However, any fee structure where, upon reaching a certain threshold of trading by a trader, a discount is applied to all trades (including those already done) as opposed to just the marginal trade executed subsequent to reaching the threshold, may lead to a distortion of orderly markets and should be banned.
19. One particular case of that might be the existence of an embedded 'cliff edge' component (meaning that if a participant's trading exceeds a given threshold, all of their trades benefit from a lower fee for a set period) that might trigger two types of risks:
- i. encouraging intensive trading before a certain time limit to reach a threshold or to obtain a higher market share, leading to a potential stress of market infrastructures; and
 - ii. abusive trading (wash trades), where that intensive trading activity does not imply a genuine change in beneficial interests or market risk or where the transfer of beneficial interest or market risk is only between parties who are acting in concert or collusion.

20. ESMA feels that such fee structures may artificially skew the incentives for traders to trade in a way that does not reflect prevailing trading conditions.

Q312: When designing a fee structure, is there any structure that would foster a trading behaviour leading to disorderly trading conditions? Please elaborate.

Q313: Do you agree that any fee structure where, upon reaching a certain threshold of trading by a trader, a discount is applied on all his trades (including those already done) as opposed to just the marginal trade executed subsequent to reaching the threshold should be banned?

Q314: Can you identify any potential risks from charging differently the submission of orders to the successive trading phases?

Q315: Are there any other types of fee structures, including execution fees, ancillary fees and any rebates, that may distort competition by providing certain market participants with more favourable trading conditions than their competitors or pose a risk to orderly trading and that should be considered here?

Q316: Are there any discount structures which might lead to a situation where the trading cost is borne disproportionately by certain trading participants?

Q317: For trading venues charging different trading fees for participation in different trading phases (i.e. different fees for opening and closing auctions versus continuous trading period), might this lead to disorderly trading and if so, under which circumstances would such conditions occur?

Relationship between fee structures and testing obligation for trading venues

21. Article 48(6) of MiFID II determines that trading venues should, as part of their obligations to ensure that trading systems cannot create or contribute to disorderly trading conditions, require members or participants to carry out appropriate testing of algorithms and provide environments to facilitate such testing.

22. ESMA considers that such obligation encompasses two types of testing:

- i. conformance testing on the compatibility of the members or participants to the trading system and their ability to process market data; and
- ii. testing of algorithms to avoid disorderly trading conditions.

23. Since conformance testing is necessary for an adequate provision of the trading services by the venue, trading venues should be able to mandate prospective members/participants to meet their requirements before accessing the market. On a similar basis, testing of algorithms in relation to the creation or contribution to disorderly trading should also become part of the regular procedure before accessing a market.

24. ESMA's preliminary view is that both types of testing are intrinsically related to the resilience of the markets. ESMA is also of the view that, notwithstanding any alternative type of testing that firms may

undertake for the same purposes, firms should use the testing facilities provided by the market in which they plan to operate.

25. ESMA also considers that trading venues may legitimately transfer the costs of the provision of these services to its members or participants. At the same time, ESMA also considers that members or participants deploying new algorithms are fully responsible for testing them under appropriate scenarios and there may be cases under which the scenarios provided by trading venues might not be sufficient for those purposes.
26. ESMA would like to hear the views of market participants about the possibility of charging separately for these types of testing and under which circumstances the cost of undertaking testing under the trading venue's rules may discourage market participants from testing sufficiently their algorithms (e.g. by independent IT providers).

Q318: Should conformance testing be charged?

Q319: Should testing of algorithms in relation to the creation or contribution of disorderly markets be charged?

Q320: Do you envisage any scenario where charging for conformance testing and/or testing in relation to disorderly trading conditions might discourage firms from investing sufficiently in testing their algorithms?

Relationship between fee structures and market making schemes¹²⁰

27. As indicated in the section about market making schemes, agreements and strategies, the purpose of the references in Recital 62 and Articles 48 and 17 of MiFID II is to contribute to the orderliness of the markets.
28. To that end, MiFID II sets out that:
 - i. every firm engaged in a market making strategy has to sign a market making agreement with the trading venue where that strategy is implemented;
 - ii. it is the choice of the trading venue whether or not to pay rebates to firms engaged in those market making agreements. Trading venues may have so many effective market making agreements in place without paying a rebate that developing a market making scheme becomes unnecessary. Regardless of that, firms engaged in the market making agreement should fulfil the requirements in terms of spread, size and presence;
 - iii. the wording of Article 4(2)(b) of MiFID II [*“to ensure”*] creates an obligation on the trading venue to achieve a result: a sufficient number of market participants should sign market making agreements to ensure the provision of liquidity. Market making schemes should be in place in relation to those instruments without a sufficient number of market making agreements in place (what is a ‘sufficient number of market making agreements’ is still to be defined. See section on ‘market

¹²⁰ To be read jointly with the section on market making strategies, agreements and schemes.

making strategies, agreements and schemes' in this DP). Otherwise, it might be considered that the fee structure creates incentives for disorderly trading conditions.

29. In line with that, Article 48(9) of MiFID II specifies that regulated markets should impose market making obligations on the individual shares or suitable basket of shares in exchange for any rebates that are granted. The payment of those rebates could take place under a market making agreement (if the trading venue considers it necessary to do so) or under a market making scheme (where the trading venue cannot attract a sufficient number of market making agreements without those rebates).
30. ESMA's preliminary view is that the provisions on market making schemes must be read in conjunction with fee structures and the following principles should apply:
 - i. trading venues should develop a market making scheme/incentives for those instruments considered as liquid according to Article 2(1)(17) of MiFIR which do not have a sufficient number of firms engaged in market making agreements;
 - ii. trading venues shall put in place effective measures to detect the effective provision of liquidity on an on-going basis and also to detect that the obligations under the market making arrangement are strictly met. In particular, that monitoring obligations should focus on ensuring that these firms meet the minimum presence time;
 - iii. trading venues should have a system of penalties to ensure that the firms engaged in the market making arrangements are not only excluded from those benefits when they do not meet the requirements on a systematic basis but also risk a sufficient fine. The system should ensure that firms are not only present when additional provision of liquidity is not necessary, but also when it is needed; and
 - iv. trading venues shall keep detailed records on the measures and/or penalties adopted as well as on the monitoring activity carried out on members and participants behaviour with respect to market making arrangements.

Q321: Do you agree with the approach described above?

Q322: How could the principles described above be further clarified?

Relationship between fee structures and order-to-trade ratios¹²¹

31. ESMA's preliminary view is that an OTR regime must also be read in conjunction with fee structures, i.e. any breach of the mandatory OTR should be managed by all trading venues in such a way that the following principles apply:
 - i. trading venues shall put in place effective measures to detect any breach of the mandatory OTR;

¹²¹ To be read jointly with the section on OTR.

- ii. although not prohibited, ESMA does not envisage that a market participant infringing the mandatory OTR should be prevented from trading but expects at least the economic equation to be significantly different, through the implementation of effectively deterrent economic penalties;
- iii. trading venues shall keep detailed records on the measures and/or penalties adopted as well as on the monitoring activity carried out on members and participants behaviour with respect to OTR.

Penalty scheme applicable when breaching the mandatory OTR limit.

32. ESMA is of the opinion that economic penalties for an excessive submission of messages would be a sufficiently deterrent element to correct some members' and participants' behaviour. As an example, some clearing systems currently apply penalties for failing trades with an observed reduction in the inefficiency rates.
33. At the moment, there is no common approach from trading venues about charging fees for the number of messages (order entry, modification and cancellation). For instance, there are examples of fee structures that only charge fees for connectivity arrangement and not for the real flow of messages.
34. ESMA is of the opinion that for all trading venues (including those fee structures that currently do not charge a concrete fee for message submission) should have in place a sufficiently deterrent penalty structure for those participants systematically exceeding the OTR threshold.
35. In this regard, ESMA envisages two options:
 - i. Option A: each trading venue would design (calibration and methodology) and incorporate economic penalties for an excessive submission of messages in its general fee structure scheme on the basis of their own overall capacity. In any case, trading venues should be in the position to demonstrate that the penalty fee effectively discourages members or participants from systematically breaking the OTR; and
 - ii. Option B: a common framework where all trading venues would incorporate a penalty fee to systematic breaches of OTR threshold determined according to a homogeneous methodology. Under this approach, ESMA should clarify the methodology including the concept of systematic breach and the calculation method (e.g. a fixed amount of money per day or per message exceeding the OTR threshold; a fixed percentage or a progressive percentage over the value of the orders exceeding the OTR threshold).
36. ESMA is of the opinion that Option B might ensure a uniform implementation of the OTR regime and could also avoid potential situations of regulatory arbitrage.

Q323: Do you agree that and OTR must be complemented with a penalty fee?

Q324: In terms of the approach to determine the penalty fee for breaching the OTR, which approach would you prefer? If neither of them are satisfactory for you, please elaborate what alternative you would envisage.

37. There are a number of additional considerations regarding the design of fee structures related to a breach of an OTR:

- i. observation period: ESMA's preliminary view is that it should coincide with the billing period;
- ii. penalties for systematic breaches: ESMA would like to know the views of market participants regarding grace periods for episodic breaches during the observation period (i.e. whether it would be appropriate to apply the fee only to systematic breaches when the threshold is overpassed a number of days during the observation period); and
- iii. ESMA is aware that most of the OTR regimes currently in place exempt market makers, permitting them to submit orders beyond the pre-established limit without surcharge (or with a smaller one). ESMA's preliminary view is that any future OTR regime should preserve this market practice with respect to firms engaged in a market making agreement.

Q325: Do you agree that the observation period should be the same as the billing period?

Q326: Would you apply economic penalties only when the OTR is systematically breached? If yes, how would you define "systematic breaches of the OTR"?

Q327: Do you consider that market makers should have a less stringent approach in terms of penalties for breaching the OTR?

Analysis of the relationship between fee structures and market abuse

38. Recital 62 of MiFID II specifies that algorithmic trading techniques can, like any other form of trading, lend themselves to certain forms of abusive behaviour prohibited under MAR.
39. ESMA has not found a direct relationship between any fee structure currently in use by a trading venue providing an incentive to market abuse as defined in MAR.
40. The views of market participants are requested on which type of fee structures could incentivise abusive trading behaviour.

Q328: Please indicate which fee structure could incentivise abusive trading behaviour.

Q329: In your opinion, are there any current fee structures providing these types of incentives? Please elaborate.

4.8. Tick sizes (Article 48(6) and Article 49 of MiFID II)

Background/Mandate/Empowerment

Article 49, MiFID II

1. *Member States shall require regulated markets to adopt tick size regimes in shares, depositary receipts, exchange traded funds, certificates and other similar financial instruments and in any other similar financial instrument for which regulatory technical standards are developed in accordance with paragraph 4.*

2. *The tick size regimes referred to in paragraph 1 shall:*

a) *Be calibrated to reflect the liquidity profile of the financial instrument in different markets and the average bid-ask spread, taking into account the desirability of enabling reasonably stable prices without unduly constraining further narrowing of spreads;*

b) *Adapt the tick size for each financial instrument appropriately*

3. *ESMA shall develop draft regulatory technical standards to specify minimum tick sizes or tick size regimes for specific shares, depositary receipts, exchange-traded funds, certificates and other similar financial instruments where necessary to ensure the orderly functioning of markets, in accordance with the factors in paragraph 2 and the price, spread and depth of liquidity of the instruments.*

[...]

4. *ESMA may develop draft regulatory technical standards to specify minimum tick sizes or tick size regimes for specific financial instruments other than those listed in paragraph 3 where necessary to ensure the orderly functioning of markets, in accordance with the factors in paragraph 2 and the price, spreads and depth of liquidity of the financial instruments.*

1. Article 48(6) of MiFID II indicates that Member States shall require a regulated market to have in place effective systems, procedures and arrangements (...) to ensure that algorithmic trading systems cannot create or contribute to disorderly trading conditions on the market and to manage any disorderly trading conditions which do arise from such algorithmic trading systems, including systems (...) to limit and enforce the minimum tick size that may be executed on the market.

2. Today, the tick size regimes developed throughout the different European trading venues are not harmonised as there is currently no common legal framework prescribing any harmonisation. An initiative was nonetheless taken in 2009 by the Federation of European Securities Exchanges (FESE), whereby four common tick size tables were proposed¹²². Whilst these tables have had some success in harmonising tick sizes, it is clearly the intent of MiFID II that the setting of tick sizes be under the control of regulators rather than individual trading venue operators. This will not only ensure harmonisation in future, but will also prevent tick sizes being used as a tool for competition between venues, thereby removing the risk of a ‘race to the bottom’.

¹²² http://www.fese.eu/_lib/files/UPDATED_FESE_TICK_SIZE_TABLES_AS_OF_OCT_2012.pdf

3. In addition to the mandate set out for ESMA in Article 49 of MiFID II, as reproduced above, Recital 63 of MiFID II provides some broader context. This recital states that, against the backdrop of the risks that can arise from firms engaging in algorithmic or high frequency algorithmic trading techniques, “...ESMA should play an important coordinating role by defining appropriate tick sizes *in order to ensure orderly markets at Union level*” (emphasis added).
4. Clearly, then, in undertaking its task it is possible that the tick sizes/tick size regimes that ESMA sets down may give rise to fundamental changes in market microstructure. For instance, just as ESMA is required to have regard to factors such as liquidity and bid-ask spreads in setting tick sizes, so those tick sizes will themselves potentially affect liquidity and spreads – i.e., the measures that reflect the activity that market participants undertake in the markets.

The factors ESMA must take into account

5. As set out above, there are multiple factors that ESMA must take into account in specifying minimum tick sizes or tick size regimes, including price, liquidity/liquidity profile, and spreads. One approach to present the required tick sizes would be for ESMA to construct a table, along the lines as illustrated below, that sets out tick sizes for any given combination of instrument price range (e.g. €1.00-€1.99) and liquidity band.

		Price levels						
		o-a	a-b	b-c	c-d	d-...	...-n	>n
Liquidity Levels	1st liquidity level							
	2nd liquidity level		<i>T</i>	<i>I</i>	<i>C</i>	<i>K</i>	<i>S</i>	
	3rd liquidity level							
	etc.							

6. If such an approach is adopted, the issue for ESMA is to determine how the individual cells of the above table should be populated, given the policy aims that are to be achieved and how the liquidity bands are defined.
7. In addition, ESMA considers that the following key attributes should be reflected in a pan-European tick size regime:
 - i. it must be implementable across EU markets to mitigate arbitrage activities;
 - ii. it must be robust and scalable, to ensure ready adoption and operation across EU markets;
 - iii. the design of the regime must be as simple as possible – it must minimise the use of arbitrarily set variables, and be easy for all stakeholders to comprehend and implement the regime;
 - iv. it must be structured so as to be readily enforceable by ESMA and relevant NCAs; and
 - v. there must be minimal disruptions to trading activities during the implementation of the regime.

Q330: Do you agree with the general approach ESMA has suggested?

How to determine tick sizes

8. A change in tick size impacts each market participant differently. The targeted tick size is the result of the trade-off between constraining the spread to allow liquidity to aggregate and increasing ‘viscosity’¹²³:
 - i. the tick size must be small enough to avoid increasing viscosity. Too big, a tick size can discourage investors from placing orders at the best bid/offer as the queuing time at these price points may become longer, which in turn increases the implementation risk associated with the order;
 - ii. however, the tick size must be big enough to ensure that there is a relevant cost to ‘overbidding’ (i.e. stepping in front of the existing best bid/offer by offering a better price). Highly granular tick sizes may have a detrimental effect on market depth as the cost to overbid becomes extremely small and as liquidity is scattered through too many price points, this may discourage liquidity providers from posting orders.
9. ESMA has identified two possible approaches to determine the minimum tick size or tick size regime. Option 1 attempts to build a new approach to setting tick sizes, having regard to the requirements set out in Article 49 of MiFID II. Option 2 attempts to adapt the existing market approach to determining tick sizes to ensure it is compliant with MiFID II requirements. An overview of both options is set out below, with further detail provided in Technical Annexes below. Initially, the overview of both options may be read with the tick sizes for cash equities in mind. However, ESMA is keen to gather views on how both options may be applied to other instrument types, including equity-like instruments. Questions on this are set out below.
10. It is worth mentioning that for both options, only price movements determine a tick size change on an intra-day basis.

Analysis of Option 1

With regard to equity financial instruments:

Conceptual overview of Option 1

¹²³ In the current DP, the concept of “viscosity” defines the capacity of a market to aggregate liquidity without incurring a change in the spread, making prices more or less predictable.

In markets driven by price/time priority, an order placed first executes ahead of one placed later, unless the later order is posted at a “better” price. Therefore, the ability to post a quote (i.e. without crossing the spread) at a “better” price is inversely correlated to the predictability of execution at a certain price (i.e. the viscosity of the price). The different degrees of viscosity depend heavily on the tick size, i.e. the smallest allowable increment between quoted prices in the market:

- small tick sizes make it easier for traders to overbid and as a consequence the smaller the tick size, the more the prices tend to move constantly and irregularly when the viscosity is too low. Towards the extreme, that noise may entail negative externalities such as high costs related to data (need for constant updates) and infrastructures capacity and resilience;
- big tick sizes favour stability of the price but reduce the chances of price improvement, creating price constraints, thus creating too much viscosity.

11. Observation of financial markets shows that the more liquid the instrument, the thinner the spread, and therefore the smaller the tick size.
12. On that basis, Option 1 proposes a common two-dimensional (double entry) tick size table for shares. One dimension is the share's liquidity profile, measured in average numbers of trades per day. The other dimension is the price of the shares, expressed in monetary units and grouped in ranges. As a result, at any point in time, each share, depending on its liquidity profile and its price, would be assigned a tick size.
13. The financial instruments' *liquidity* profile must be reflected in the determination of the tick size regime, in accordance with the specific conditions required by Article 49 of MiFID II. It is considered that the most relevant proxy of liquidity for this purpose is the **average daily number of transactions** as determined at the end of each calendar year¹²⁴ on the grounds that:
 - i. it is sufficiently granular so as to faithfully reflect the liquidity profile of financial instruments;
 - ii. it is easy to assess and integrate in the common tick size model contemplated by Article 49 of MiFID II;
 - iii. it is very stable; and
 - iv. it does not constitute redundant information¹²⁵ (as opposed to the traded amounts already embedded in the stock prices).
14. Option 1 proposes four liquidity bands¹²⁶, the less liquid stocks falling within the first two bands and the most liquid within the last two bands¹²⁷.

Q331: Do you agree with adopting the average number of daily trades as an indicator for liquidity to satisfy the liquidity requirement of Article 49 of MiFID II? Are there any other methods/liquidity proxies that allow comparable granularity and that should be considered?

Q332: In your view, what granularity should be used to determine the liquidity profile of financial instruments? As a result, what would be a proper number of liquidity bands?

15. Under Option 1, it is proposed to use three levels of increments (1, 2 and 5 instead of 1 and 5 under most existing FESE tables) and price ranges for referencing both the tick size increments and price within the common tick size table. These increments would have a number of advantages:
 - i. by providing for an additional level of granularity (compared to most FESE tables), this approach will satisfy the characteristics of different stocks and will allow stocks to change tick sizes in a smoother way;

¹²⁴ On the model of the provisions relating to the calculations and estimates for shares admitted to trading on a regulated market (Article 33 of MiFID Implementing Regulation). For further information, see technical annex.

¹²⁵ Indeed, the price would be present on the x-axis and does not appear on the y-axis.

¹²⁶ For a representation of the liquidity bands, see figure 1 below.

¹²⁷ ESMA is aware that Article 2 of MiFIR contains a mandate to advise on the meaning of "liquid market". The current approach may be applicable only for the determination of the tick size and not for any other purposes.

- ii. the implementation of this approach is intuitive as it is consistent with most European banknote and coin values (e.g., 50, 20, 10, 5, 2, 1) with which market participants are already familiar;
 - iii. despite the extra granularity, the tick size of a financial instrument would only move up two consecutive price classes within one year if the price of that instrument has more than doubled in that time.
16. Option 1 proposes that the common tick size table is based on three levels of increments, 1, 2 and 5, for both tick size and price to smoothen tick changes.
17. The next step in building the table is determining, for each combination of liquidity band and price range, how big the tick should be. The values of tick sizes in Option 1 are aimed at finding a trade-off between constraining the spread while controlling viscosity that might be adjusted over time if the market conditions so require.
18. Option 1 is based on the following considerations¹²⁸:
 - i. the spread is positively correlated to the price of the stock (stocks with higher prices usually present higher spreads in nominal terms);
 - ii. the spread is negatively correlated to the liquidity of the instrument (more liquid shares present smaller spreads);
 - iii. it is possible to group shares with a similar average spread, based on their price and liquidity;
 - iv. for each such group of shares, the tick may be defined to target a pre-determined “spread to tick ratio” range that reflects the viscosity trade-off; and
 - v. flexibility is needed for further calibration if market conditions so demand.
19. Option 1 has been designed to find the viscosity trade-off, that-is-to-say establishing a floor and a ceiling for the number of ticks in the spread (**spread to tick ratio**, i.e. the number of ticks between the bid and the offer)¹²⁹:
 - i. the floor is the number of ticks in the spread under which the viscosity is considered too high. A spread-to-tick under this floor is considered too tight and would discourage investors from placing orders at the best bid/offer as the queuing time at these price points may become longer. Under current market conditions, Option 1 proposes a spread to tick ratio of 1.4 as the floor below which the spread would be constrained for both liquid instruments and illiquid instruments. In approximate terms, this implies that on average, the spread would consist of one tick 60% of the time;
 - ii. the ceiling is the number of ticks in the spread above which the viscosity is considered too low, hence favouring noise¹³⁰. As observed under current market conditions, it is proposed a ceiling of 2.5 for most liquid instruments and a ceiling of 5 for less liquid instruments;

¹²⁸ For more details, please refer to the graphs of the technical annex.

¹²⁹ For details on how the proposed floor and the ceiling were identified, please refer to the technical annex.

20. Option 1 targets a spread to tick ratio range, for most liquid instruments, set between a floor of 1.4 ticks and a ceiling of 2.5 ticks. For less liquid instruments, the floor would be 1.4 as well, while the ceiling would be raised to 5 ticks.

Q333: What is your view on defining the trade-off between constraining the spread without increasing viscosity too much on the basis of a floor-ceiling mechanism?

Q334: What do you think of the proposed spread to tick ratio range?

Q335: In your view, for the tick size regime to be efficient and appropriate, should it rely on the spread to tick ratio range, the evolution of liquidity bands, a combination of the two or none of the above?

The proposed tick size regime:

21. Option 1 proposes the tick size table below with **two dimensions** (liquidity profile based on four pre-defined liquidity bands and price).
22. It is highlighted that the proposed tick size table has been developed and refined after conducting impact and sensitivity assessment exercises (for more details, please refer to the technical annex). The row titles of the proposed tick size table relates to liquidity ranges (based on the average daily number of trades) whereas the column titles relate to the price ranges.

Price range =>	0-0.1	0.1-0.2	0.2-0.5	0.5-1	1-2	2-5	5-10	10-20	20-50	50-100	100-200	200-500	500-1,000	1,000-2,000	2,000-5,000	5,000-20,000	>20,000
liquidity range 1-199	0.0002	0.0005	0.001	0.002	0.005	0.01	0.02	0.05	0.1	0.2	0.5	1	2	5	10	20	50
liquidity range 200-499	0.0001	0.0002	0.0005	0.001	0.002	0.005	0.01	0.02	0.05	0.1	0.2	0.5	1	2	5	10	20
liquidity range 500-1499	0.0001	0.0001	0.0002	0.0005	0.001	0.002	0.005	0.01	0.02	0.05	0.1	0.2	0.5	1	2	5	10
liquidity range 1500-999999	0.0001	0.0001	0.0001	0.0002	0.0005	0.001	0.002	0.005	0.01	0.02	0.05	0.1	0.2	0.5	1	2	5

Figure 2: Option 1 - Tick size table proposal

23. It is further highlighted that for the liquidity bands to continuously reflect the liquidity profile of each financial instrument, Option 1 provides for a periodic review of the liquidity bands (a yearly review at minimum) in order to adjust liquidity bands (e.g. to narrow, widen, supplement them with additional bands) if the market conditions so require¹³¹.

Q336: What is your view regarding the common tick size table proposed under Option 1? Do you consider it easy to read, implement and monitor? Does the proposed two dimensional tick size table (based on both the liquidity profile and price) allow applying a tick size to a homogeneous class of stocks given its clear-cut price and liquidity classes?

Q337: What is your view regarding the determination of the liquidity and price classes?

Implementation of the common tick size table proposed under Option 1:

¹³⁰ Noise= number of cancelled or modified orders per minute.

¹³¹ See section «Monitoring and control» below.

Financial instruments traded on a trading venue

24. Under Option 1, the average daily number of transactions determined once a year on the occasion of the MiFID annual transparency calculations would determine the liquidity range, and therefore the applicable tick size for a given price range for each share.
25. For instance, if the average daily number of transactions for a share is within the range 200-499, the tick size for that share will move according to the change in the price as mentioned in the row below:

Price ranges	0-0.1	0.1-0.2	0.2-0.5	0.5-1	1-2	2-5	5-10	10-20	20-50	50-100	100-200	200-500	500-1,000	1,000-2,000	2,000-5,000	5,000-20,000	20,000-1,000,000
Liquidity band 200-499	0.0001	0.0002	0.0005	0.001	0.002	0.005	0.01	0.02	0.05	0.1	0.2	0.5	1	2	5	10	20

26. This means that once a financial instrument falls into a liquidity band (200-499 in the above example), it will remain in that liquidity band until the next annual review and each change in its price range will result in a change in the applicable tick size (for example, if the financial instrument's price increases from the range 5-10 to the range 10-20, the financial instrument's tick size will change from 0.01 to 0.02). As indicated above, only price movements determine a tick size change on intra-day basis.

Financial instruments first admitted to trading

27. For financial instruments to be admitted to trading, it is proposed to follow the approach already provided by Article 33 of MiFID Implementing Regulation of MiFID I: before an admission, the relevant NCA shall ensure that estimates on the average daily number of transactions are provided in respect of that share (e.g. taking similar shares as proxy). It is proposed that the liquidity bands are determined accordingly.
28. Using the data of the first four-week trading period, the NCA will calculate the average daily number of transactions for the financial instrument which will allow a determination of the appropriate liquidity band to which the financial instrument belongs. This liquidity band will then be applicable until the next annual transparency calculation.

Shares traded in a fixing segment

29. Under Option 1, shares admitted to trading in a fixing segment will be assigned the tick size regime of the lowest liquidity band.

How the tick size regime would be kept up-to-date under Option 1 (monitoring and revision of the parameters)

30. Option 1 is based on a determination of the applicable tick size for each and every class in consideration of the spread to tick ratio range mentioned above. It ensures that, the viscosity of the stocks in the same liquidity/price class is homogeneous.

31. In order to function appropriately, the calibration mechanisms underlying Option 1 rely on and are supplemented by a monitoring process that allows an assessment of the changes made to the market microstructure (notably the spread). In order to do so, a sufficiently relevant control group is systematically maintained¹³².
32. To that end, the spread to tick ratio and the liquidity bands have been designed to maintain a relevant **control group** for each class, i.e. a sufficiently large sample of stocks that will not change tick size. That means that the market microstructural effects (e.g. spread to tick ratio, liquidity etc.) of a change in tick made to shares can be compared with the market microstructural effects on those shares that remained in the same tick range.
33. On the basis of those empirical measurements, the system can be adapted to the evolution of the market microstructure: this option is flexible so that if considered necessary, the targeted spread to tick ratio range, price ranges and the number of liquidity bands can be changed.
34. Under Option 1, it is considered that a periodic review of these parameters should take place at least on a yearly basis.
35. Option 1 would permit a flexible approach whereby the targeted spread to tick ratio range, the price ranges and the liquidity bands can be adapted in light of the observed market behaviour.

Q338: Considering that market microstructure may evolve, would you favour a regime that allows further calibration of the tick size on the basis of the observed market microstructure?

Q339: In your view, does the tick size regime proposed under Option 1 offer sufficient predictability and certainty to market participants in a context where markets are constantly evolving (notably given its calibration and monitoring mechanisms)?

Q340: The common tick size table proposed under Option 1 provides for re-calibration while constantly maintaining a control sample. In your view, what frequency would be appropriate for the revision of the figures (e.g., yearly)?

Impact assessment of Option 1:

36. The main conclusions of the impact assessment were:
 - i. for the liquid end of the spectrum (more than 500 trades per day), under Option 1 there would be:
 - a. no less than 32 %¹³³ of the liquid shares that would increase their tick (reaching 53% for shares in the range of 500-1499). The overall median increase of the tick for liquid shares (x2) would lead to a decrease of the spread to tick ratio. As an example, a liquid share cur-

¹³² More specifically, this means that a sufficiently large sample of stocks should be unaffected by any re-calibration of the tick size table (Control Sample). It allows checking that the impact on each stock is reasonable and that there are no cases of extreme changes in the tick sizes. Another merit of the Control Sample is that it can always be compared to the Increase Sample (i.e., the sample of stocks the tick size of which has increased) and to the Decrease Sample (i.e., the sample of stocks the tick size of which has decreased). This permits analysing the impact of a new tick size on the relevant stock as opposed to those which remain in the same tick size and thus, re-arranging the table where necessary.

¹³³ Turnover weighted

rently traded with a tick of 0.01 having the median x2 increase of its tick would trade with a tick of 0.02;

- b. for the most liquid shares (liquidity range >1500), the impact on the stocks would be evenly split, with one third increasing by one tick size level, one third unchanged and one third decreasing by one tick size level.
- ii. for two thirds of illiquid shares the median increase of the tick would be by 4 or 5 times. Again, it would lead to a decrease of the spread to tick ratio. As an example, for shares in the liquidity range 1-199 the median spread to tick ratio would move from 11.3 to 4.8;
- iii. the median increase/decrease is a more relevant measure than the mean increase/decrease as it is not biased by some extreme observations

	Percentage of turnover (MiFID database)	Number of shares for which the tick size does not change	Number of shares for which the tick size increases	Number of shares for which the tick size decreases	Median Increase	Average Increase	Median Decrease	Average Decrease
Liquidity range: 1 - 199	0.94%	16%	62%	21%	x 5	x 12	x (1 / 2)	x (2 / 5)
Liquidity range: 200 - 499	0.93%	8%	69%	22%	x 4	x 5	x (1 / 2)	x (2 / 5)
Liquidity range: 500 - 1499	2.75%	34%	53%	11%	x 2	x 3	x (1 / 5)	x (3 / 10)
Liquidity range: 1500 - 999999	93.37%	34%	32%	32%	x 2	x 2	x (1 / 2)	x (2 / 5)

In particular, impact on trading venues

37. Under Option 1, the trading venue concerned needs to:

- i. have four liquidity bands in its trading system and apply to each share the tick size range corresponding to the share's liquidity band as determined by the average daily number of transactions published through the MiFID annual transparency calculations; and
- ii. update the tick size range on the basis of the MiFID annual transparency calculations.

Q341: In your view, what is the impact of Option 1 on the activity of market participants, including trading venue operators? To what extent, would it require adjustments?

With regard to equity-like and non-equity financial instruments:

Introductory note

38. Article 49 of MiFID II states that Member States shall require regulated markets to adopt tick size regimes in shares, depositary receipts, exchange-traded funds, certificates and other similar financial instruments and in any other financial instrument for which RTS are developed in accordance with paragraph 4.
39. ESMA shall develop draft RTS to specify minimum tick sizes or tick size regimes for specific shares, depositary receipts, exchange-traded funds, certificates and other similar financial instruments where this is necessary to ensure the orderly functioning of markets, in accordance with the factors in paragraph 2 and the price, spreads and depth of liquidity of the instruments.
40. As with equities, trading venues across the EU employ a range of tick size tables for other equity-like financial instruments. While there have been previous efforts made to harmonise tick size tables in liquid shares, a similar practice has not happened for other equity-like instruments.
41. The tables for equity-like financial instruments therefore vary between trading venues. Some trading venues apply the same (or similar) tick size tables to these financial instruments as they use for shares, others apply a different tick size table, while there are some venues that apply a uniform tick size across each instrument type, irrespective of the different characteristics (price, liquidity etc.) of each instrument traded on that trading venue within the given instrument type.
42. As well as proposing a tick size regime for shares, ESMA is also required to determine whether a similar regime is required for equity-like instruments and if so, whether such proposals should be related to the tick size regime for shares.
43. In this respect, there are two different elements to consider:
 - i. the scope of a tick size regime across equity-like instruments; and
 - ii. the type of regime that should be used for those instruments.

Scope

44. ESMA is responsible for identifying the range of equity-like instruments where a minimum tick size or tick size regime is necessary to maintain the orderly functioning of markets. It is acknowledged that many equity-like instruments have a high correlation to the underlying equity instrument and as a result, there should be an equivalent regulation of tick sizes in those instruments with regard to what would be in place for equities so as to prevent a migration of similar trading activity to those equity-like instruments as a result of inconsistent tick sizes.
45. ESMA is also considering whether a subset of the above instrument types should be included (e.g. liquid ETFs etc.) rather than the full instrument type, however ESMA also noted that prioritising a regime based on liquidity may advantage less liquid ETF issuers of similar instruments to those of liquid ETFs and therefore limiting regulation of tick sizes to this subset would not be suitable.
46. In this regard, it is proposed that under Option 1 ETFs, depositary receipts and certificates should be included in the same tick size regime.
47. ESMA has the option to implement regulation on tick sizes for other instruments. Given the wide range of instruments and the different volumes of trading on trading venues in those instruments, it

is proposed not to implement any such regulation as ESMA believes it regulation is not needed to ensure an orderly market for those instruments.

Q342: Do you agree that some equity-like instruments require an equivalent regulation of tick sizes as equities so as to ensure the orderly functioning of markets and to avoid the migration of trading across instrument types based on tick size? If not, please outline why this would not be the case.

Q343: Are there any other similar equity-like instruments that should be added / removed from the scope of tick size regulation? Please outline the reasons why such instruments should be added / removed?

Q344: Do you agree that depositary receipts require the same tick size regime as equities?

Q345: If you think that for certain equity-like instruments (e.g. ETFs) the spread-based tick size regime¹³⁴ would be more appropriate, please specify your reasons and provide a detailed description of the methodology and technical specifications of this alternative concept.

Q346: If you generally (also for liquid and illiquid shares as well as other equity-like financial instruments) prefer a spread-based tick size regime¹³⁵ vis-à-vis the regime as proposed under Option 1 and tested by ESMA, please specify the reasons and provide the following information:

- i. technical specifications of this alternative concept;**
- ii. evidence as regards the testing on various trading venues in Europe and possible implications on market structures;**
- iii. procedures for a uniform implementation;**
- iv. explanations as regards a monitoring of its functioning and potential adjustments; and**
- v. its applicability to shares newly admitted to trading.**

Type

48. ESMA has to determine the type of tick size regulation that should be imposed on those equity-like instruments for which some form of regulation is required. This can take the following forms:

- i. a simple minimum tick size for those instruments, for which tick sizes can be increased further by trading venues; or
- ii. a tick size regime, where a tick size is formed based on price and liquidity, with similarities to the regime for equities; or

¹³⁴ Please see the description of Option 2 regarding tick sizes below.

¹³⁵ Please see the description of Option 2 regarding tick sizes below.

- iii. a spread-based tick size regime where price and liquidity are taken into account and the time weighted average spread in trading currency is the decisive factor to determine the optimal tick size minimising the deviation of the instrument's average ticks per spread from a predefined target; or
 - iv. a tick size equal to the tick size applicable to the underlying for those equity-like instruments with a single underlying.
49. As stated previously, trading venues currently employ a variation of these options: some venues apply a similar tick size table for equity-like instruments, based on the trading segment (which may be dependent on liquidity of the instrument) and the price. Other trading venues have a simple rule with a harmonised tick size for some equity-like instruments, irrespective of price and liquidity.
50. At this stage, there is no preferred option for these instruments and ESMA would like to hear views from respondents on what the optimal form of tick size regulation would be, with detailed technical explanations on why that form of tick size would be suitable.

Q347: Given the different tick sizes currently in operation, please explain what your preferred type of tick size regulation would be, giving reasons why this is the case.

51. With regard to non-equity financial instruments, it is considered at this stage that the need for developing minimum tick sizes or tick size regimes for non-equity instruments (through the elaboration of RTS) to ensure the orderly functioning of the markets has not yet been established. It is therefore considered not relevant to elaborate any such tick size regime proposal for the time being.

Q348: Do you see a need to develop a tick size regime for any non-equity financial instrument? If yes, please elaborate, indicating in particular which approach you would follow to determine that regime.

Analysis of Option 2

Conceptual overview of Option 2

52. As noted above, the central concept underpinning Option 2 is to build on existing market practice where appropriate, while incorporating the specific requirements stipulated in Article 49 of MiFID II. This option leverages on existing definitions and concepts established in MiFID I wherever possible.
53. Under Option 2, a single common tick size table, modelled broadly on the existing FESE Table 2, would be used as the basis for determining an appropriate tick size over the course of normal trading for all instruments admitted into the pan-European tick size regime. By adhering to a common tick size table across the EU, any concerns of a 'race to the bottom' in respect of inter-venue competition should be mitigated. This table was identified as the most granular among the four tables FESE has published, having 17 bands over the price range of 0 to 100,000. Furthermore, this table is constructed so that it uses three levels of increments (1, 2 and 5 in lieu of 1 and 5 under other FESE tables). By providing for an additional level of granularity compared to other FESE tables, this table will accommodate the characteristics of different stocks, allowing for smoother increments over 20 bands.
54. However, in contrast to the existing approach under the FESE tick size tables, Option 2 would involve the appropriate tick size being determined based on liquidity as well as the price of the instrument.

55. In taking into account the liquidity profile of the financial instrument, under Option 2 a financial instrument would be deemed liquid if it satisfies the conditions set out in the Article 22 of the Commission Regulation No 1287/2006 of MiFID I.
56. As MiFID II makes clear, any tick size regime must be calibrated to reflect the liquidity profile of the given instrument. Liquidity as a concept is currently defined under Article 22 of the European Commission Regulation (EC) No 1287/2006¹³⁶ of MiFID I.
57. It is proposed that this existing definition is utilised in the tick size regime as the basis for taking into consideration the liquidity of the instrument.

Q349: Do you agree with assessing the liquidity of a share for the purposes of the tick size regime, using the rule described above? If not, please elaborate what criteria you would apply to distinguish between liquid and illiquid instruments.

58. Illiquid instruments, as defined above, would trade at a tick size that is larger than those for similarly-priced liquid shares, to take into account the desirability of enabling reasonably stable prices without unduly constraining further narrowing of spreads, as required under Article 49(2)(a) of MiFID II.
59. Article 49 of MiFID II also requires that the desirability of enabling reasonably stable prices without unduly constraining further narrowing of spreads is taken into account, and to adapt the tick size for each financial instrument in an appropriate manner.
60. Therefore, under Option 2 it is proposed that for an illiquid instrument, as defined, the applicable tick size should be larger than that for a similarly-priced liquid share. The effect of the liquidity adjustment will result in tick sizes as set out in the table below.

Price band		Tick Size for liquid shares	Tick size for illiquid shares
Lower Limit	Upper Limit		
-	0.4999	0.0001	0.0005
0.50	0.9995	0.0005	0.0010
1.00	1.9990	0.0010	0.0020
2.00	4.9980	0.0020	0.0050
5.00	9.9950	0.0050	0.0100
10.00	19.9900	0.0100	0.0200
20.00	49.9800	0.0200	0.0500
50.00	99.9500	0.0500	0.1000
100.00	199.9000	0.1000	0.2000
200.00	499.8000	0.2000	0.5000
500.00	999.5000	0.5000	1.0000
1,000.00	1,999.0000	1.0000	2.0000
2,000.00	4,998.0000	2.0000	5.0000

¹³⁶ Commission Regulation (EC) No 1287/2006 of 10 August 2006: Shares admitted to a regulated market are considered to have a liquid market if the share is traded daily, with a free float of not less than EUR 500 million, and one of the following conditions is satisfied:

- the average daily number of transactions in the share are not less than 500;
- the average daily turnover for the share is not less than EUR 2 million. To be replaced by Article 2(1)(17) of MiFIR in due course.

5,000.00	9,995.0000	5.0000	10.0000
10,000.00	19,990.0000	10.0000	20.0000
20,000.00	39,980.0000	20.0000	40.0000
40,000.00	49,960.0000	40.0000	50.0000
50,000.00	79,950.0000	50.0000	80.0000
80,000.00	99,920.0000	80.0000	100.0000
100,000.00	-	100.0000	200.0000

61. When a share is first admitted to trading, and thus joins the tick size regime, it will be treated as an illiquid instrument during an initial calibration period. Six weeks after the introduction into the regime, the liquidity of the instrument during the initial period will be reassessed, and the instrument reassigned as liquid if sufficient liquidity exists. This six-week review process is in line with the review process that is currently undertaken for the purposes of the pre- and post-trade transparency regime under MiFID I.

Q350: Do you agree with the tick sizes proposed under Option 2? In particular, should a different tick size be used for the largest band, taking into account the size of the tick relative to the price? Please elaborate.

Q351: Should the tick size be calibrated in a more granular manner to that proposed above, namely by shifting a band which results in a large step-wise change?

Q352: Do you agree with the above treatment for a newly admitted instrument? Would this affect the subsequent trading in a negative way?

Q353: Do you agree that a period of six weeks is appropriate for the purpose of initial calibration for all instruments admitted to the pan-European tick size regime under Option 2? If not, what would be the appropriate period for the initial calibration?

62. Further to the above, as stipulated in Article 49 of MiFID II, the liquidity profile and the average bid-ask spread of an instrument are required to be reflected in assigning the instrument a tick size. Under Option 2, the impact of spreads is taken into account by way of a Spread Adjustment Factor (SAF), as explained below. This may affect the tick size band that is applicable to a share.

63. Under Option 2, it is considered that if the spread falls below two ticks further narrowing of the spread may become unduly constrained. To address this, instruments admitted to the pan-European tick size regime under Option 2 would be subject to both an initial and periodic review as shown below to ensure that the assigned tick size to which they have been assigned remains appropriate.

Date	Action
Instrument admitted to the regime (Day 1)	Assessments made with regard to liquidity (illiquid column applied). Tick size based on price assigned to the instrument as appropriate.
Six weeks post entry to the regime	Average bid-ask spread over the six week period divided by tick size assigned per price and liquidity profile. If the spread to

	tick falls below two, apply SAF.
Annual review	Reassess liquidity profile and spread to tick by reviewing liquidity and bid-ask spread over the previous period.

64. Under Option 2, the degree of impact a change in the spread should have in determining the tick size band for an instrument has been considered. Under the existing tick size regimes, price alone dictates the tick size; when a share’s price increases it is allocated a larger tick size, and vice versa. Using the average bid-ask spread as a factor in determining the tick size, as required under MiFID II, needs a careful consideration. This is because changes in spread and changes in price do not occur independently of one another. Therefore when an artificial constraint is imposed on the spread, this may impact the price, which in turn may impact the spread.
65. Ordinarily, the narrowing of the bid-ask spread is indicative of active trading. If the price of an instrument increases, then the tick size should increase accordingly, however a risk exists that a larger tick size would unduly constrain the spread. Rather, the tick size allocated to the instrument should maintain a spread of at least two ticks to ensure the spread does not become unduly constrained.
66. Such a review is envisaged to take place in the first instance when an instrument is admitted to the pan-European tick size regime. An initial six weeks calibration period is used to enable calibrating for the average bid-ask spread. Once the spread of the instrument is assessed, an appropriate SAF would be assigned, and this would be reflected in the MiFID database. This six-week review process is in line with the review process that is currently undertaken for the purposes of the pre- and post-trade transparency regime under MiFID I.
67. Furthermore, an ongoing review to ensure that the parameters remain valid and up-to-date is envisaged on an annual basis. The review cycle would mirror the existing cycle for the publication of pre- and post- trade transparency data¹³⁷.
68. In an unforeseen circumstance, regulators may need to intervene in the trading process. This could be done through a manual adjustment to SAF. Once a revised SAF has been published in the MiFID database, the new SAF would become effective, requiring all trading venues to apply the changes promptly¹³⁸.

¹³⁷ Article 33 Commission Regulation (EC) No 1287/2006.

¹³⁸ For further information on how the SAF operates, please see Technical Annex 4.8.2. Assessment Methodology of Option 2 (in particular, Step 3: Adjusting price based tick size for average bid-ask spread).

Q354: Do you agree with the proposal of factoring the bid-ask spread into tick size regime through SAF? If not, what would you consider as the appropriate method?

Q355: Do you agree with the proposal to take an average bid-ask spread of less than two ticks as being too narrow? If not, what level of spread to ticks would you consider to be too narrow?

Q356: Under the current proposal, it is not considered necessary to set an upper ceiling to the bid-ask spread, as the preliminary view under Option 2 is that under normal conditions the risk of the spread widening indefinitely is limited (and in any event a regulator may amend SAF manually if required). Do you agree with this view? If not, how would you propose to set an upper ceiling applicable across markets in the EU?

Q357: Do you have any concerns of a possible disruption which may materialise in implementing a review cycle as envisioned above?

69. For cash equity, both liquid and illiquid instruments are included in the pan-European tick-size regime. For instruments other than cash equity that are included in Article 49(3) of MiFID II, the proposed regime will only be applicable once the definitions of liquidity for these instruments have been determined under MiFIR. It is proposed, therefore, to exclude these instruments from the proposed tick size regime until such time that definitions of liquidity for these instruments become available. However, given the link between cash equities and some of the equity-like instruments, there may also be merits in admitting such instruments to this regime from the beginning.

Q358: Do you agree that illiquid instruments, excluding illiquid cash equities, should be excluded from the scope of a pan-European tick size regime under Option 2 until such time that definitions for these instruments become available? If not, please explain why. If there are any equity-like instruments per Article 49(3) of MiFID II that you feel should be included in the pan-European tick size regime at the same time as for cash equities, please list these instruments together with a brief reason for doing so.

Instruments excluded from the regime

70. Financial instruments that are not listed in Article 49(3) of MiFID II would be excluded, on the basis that the utility of a pan-European tick size regime under Option 2 would not be fully realised at the implementation of the regime.

71. MiFID II also permits ESMA to develop draft RTS to specify minimum tick sizes or tick size regimes for specific financial instruments other than those listed in Article 49(3) of MiFID II where this is necessary to ensure the orderly functioning of markets. Under Option 2, for the time being, these should be excluded from the pan-European tick size regime. As the proposed regime would constitute a major change for many trading venues and market participants, under Option 2 instruments other than those listed in Article 49(3) of MiFID II would be included only when the viability of the proposed regime has been demonstrated.

Q359: Do you agree that financial instruments, other than those listed in Article 49(3) of MiFID II should be excluded from the scope of the pan-European tick size regime under Option 2 at least for the time being? If not, please explain why and which specific instruments do you consider necessary to be included in the regime.

How the tick size regime would be kept up-to-date under Option 2

72. There are broadly two approaches to how the tick size assigned to an instrument could be reviewed: on a dynamic basis, such that the tick could adjust constantly or on a periodic basis (e.g. annually). In practice, the choice between the two may depend on the approach chosen in setting tick sizes.
73. Under Option 2, it is proposed to maintain price as a dynamic factor with which to determine the appropriate tick size during the normal course of trading, and to periodically review liquidity and the average spread to appropriately adjust the tick size band for use in the subsequent period. Due to the periodic nature of such an approach, an automated mechanism for reviewing/updating ticks may not be necessary; rather, it may be possible for the NCA responsible for the given instrument to review its tick size, taking into account changes in price, liquidity and average bid-ask spread.

Q360: What views do you have on whether tick sizes should be revised on a dynamic or periodic basis? What role do you perceive for an automated mechanism for doing this versus review by the NCA responsible for the instrument in question? If you prefer periodic review, how frequently should reviews be undertaken (e.g. quarterly, annually)?

Impact Assessment of Option 2

74. The assessment presented below is purely indicative and to provide meaningful insight into market impact would require further assessment. The assessment does not attempt to give insight into what impact these changes may have on market liquidity, structure or trading costs.
75. The impact on tick sizes varied greatly across the EU (a full breakdown can be found in the related Technical Annex below). Some potentially anomalous results were obtained but incorporated for completeness at this indicative stage. The mean increase in tick sizes for illiquid securities in one country, for example, skewed the average increase greatly. The mean increase of 13,730% appears anomalous when compared to other findings across the EU. This potentially indicates that the tick sizes in this country are outliers. This finding, however, was driven by an extreme increase in a single equity. This may indicate that the data used to undertake the analysis is in need of refinement.
76. The results show a greater impact on the tick size of illiquid equities than liquid equities. The proportion of equities which see a change in tick size is similar, but the impact on illiquid equities is much greater. These results though assume a purely mechanical implementation. No action was taken to correct anomalous results or refine individual circumstances. However, and as stated previously, built into this option is the ability for NCAs to manually intervene to ensure impact is appropriate. The data analysis did result in some anomalous results within certain jurisdictions. Whilst these anomalies were kept in this assessment the reality is that such impacts could be reviewed by an NCA to ensure the impact on illiquid equities was not disproportionate. A breakdown by country has also been included to provide some insight as to where the greatest impact is likely to be seen. For further information, in the related Technical Annex below.

	Number / % of equities unchanged	Equities with an increase in tick size		Equities with a reduction in tick size		Total
		Number of equities	Average increase	Number of equities	Average decrease	
Illiquid	396 (12.0%)	1,452 (43.9%)	1,765%	1,459 (44.1%)	-60%	3,307 (100.0%)



Liquid	329 (35.6%)	322 (35.3%)	179%	262 (29.1%)	-61%	913 (100.0%)
--------	----------------	----------------	------	----------------	------	-----------------

Annex 4.8.1. Technical Annex for Option 1 on Tick Sizes

Preliminary empirical analysis undertaken to support Option 1

77. One NCA carried out three successive surveys on tick sizes in 2012, 2013 and 2014.
78. The outcome of the survey undertaken in 2012 on three very liquid French stocks suggested some negative side effects of large spread in terms of ticks. According to their analysis, a large spread (i.e. a small tick size):
- dramatically decreases the median lifetime of cancelled/modified orders;
 - discourages market participants to post orders in the order book;
 - induces high order to trade ratio (noise in the order book).
79. The survey carried out in 2013 focused on one very liquid stock subject to two different tick sizes (from 0.001 to 0.005 euros tick, i.e. a x 5 tick increase), every exogenous other variables being equal (liquidity, volatility etc...) using Euronext data. These results were consistent with those observed in 2012. The main conclusions the NCA reached was that a x 5 increase in the tick size for this stock led to:
- huge drop in noise messages (-72%). This implies a clearer picture of the order-book for trading venues (e.g. in terms of IT capacity and resilience), other market participants (investors) and regulators (in terms of market monitoring and detection of potential market abuse);
 - changes in price are occurring less often as viscosity increases. The median time for a price change increased by 250%;
 - traded volume (+28%) and average trading size (+80%) increased as tick size increases. It can be interpreted that market participants are more confident in the price and therefore trade more stocks at each transaction.
80. The table with the NCA's main findings is below.

			Expected impact of an increase in tick sizes	Observed impact (%change)
Tick sizes	0.001 €	0.005 €	Increase.	This study analyses an increase of 2 tick-levels (x 5).
Time at each tick size	18 500 min	18 500 min	Not applicable.	For a more accurate analysis, the periods are roughly the same with both tick sizes (+0%).
Average spread in ticks	6.2	2	Decrease: increasing the tick should decrease the spread in ticks (this change shouldn't exceed the increase in tick sizes).	As expected, one can observe a decrease of the spread in ticks (-70%). Multiplying the tick size by 5 resulted in the division of the spread (in ticks) by only 3.4 (less than expected).
Average Spread	0.006 €	0.01€	Increase: a larger tick should constrain more the spread.	As expected, one can observe an increase in the spread so that the cost of transaction compared to the mid-price has increased. (+66%).

Average trading size (ATS)	1000	1800	Increase: with more viscosity, price should be more stable and therefore market participants are willing to trade more stocks at each transaction.	ATS almost doubles (+80%) as tick size increases. Market participant seems to be more confident in the price and therefore trade more stocks at each transaction.
Number of trades	0,32 M	0,23 M	Decrease: the number of transactions should decrease as the ATS increases. This decrease could lead to a change in liquidity class (vicious circle).	As ATS increases the number of transactions decreases by -29%. In this particular case, no vicious circle is observed even though the tick size was multiplied by 5 (2 tick-levels). A 30% decrease in the number of transactions per day for 2 tick-levels is observed. Thus, no more than one recalibration of the tick should be necessary if the change in tick sizes lead to a change in liquidity class.
Traded volume	326 M	420 M	Impact on the traded volume is unknown.	The decrease in number of trades was less important than the increase in ATS and therefore an increase in traded volume (+28%) is observed.
Number of orders	8 M	2.2 M	Decrease: the noise is reduced with large tick sizes.	A huge drop in noise messages is observable (-72%). This implies a clearer picture of the order-book for trading venues (e.g., in terms of IT capacity and resilience), other market participants (investors) and regulators (in terms of market monitoring and detection of potential market abuse).
Median time between 2 trades (queuing)	0.3s	1.1s	Increase: a large tick size increases queuing and therefore increases time between 2 trades.	Median time between 2 trades increases to 1 second (+250%) as queuing increases. Note that the average time between 2 trades is much higher than the median time highlighting heavy tail distribution.
Median time between a price change	3.6s	12.5s	Increase: a large tick size increases viscosity and therefore slows price changes.	Changes in price are occurring less often (+250%) as viscosity increases.

81. Moreover, looking at market participants, it appears that when the spread on this blue chip is between 6 bps and 7 bps their activity is well balanced between aggressive trades and passive trades.

		Spread	HFT	MIXED	NON HFT
Aggressivity	Viscosity is too low	<0,006€	>65%	50%	>20%
	Well balanced viscosity (Optimal spread)	0,006€-0,007€	~50%	50%	~50%
	Viscosity is too high	>0,007€	<30%	50%	>70%

The percentages in the table refers to the volume (in shares) traded aggressively divided by the overall volume traded.

82. Thus, in this situation one would prefer a tick equal to 0.005 to a tick equal to 0.001:

$$\left. \begin{array}{l}
 \text{Tick} \in \{ (0.0001, 0.0002, 0.0005) \cdot 10^n | n \in \mathbb{N} \} \\
 \text{Tick should be close to 1 to avoid noise} \\
 \text{Targeted spread} \in [6\text{bps}; 7\text{bps}]
 \end{array} \right\} \rightarrow \text{Targeted Tick} = 0,005$$

83. Finally, the NCA made a statistical analysis on all CAC40 stocks during one month (Feb 2014) to measure how the “noise” in the order book (calculated as the number of cancelled or modified orders per minute) was impacted by:
- i. the tick; and
 - ii. the spread to tick ratio.
84. Again, the outcome was consistent with the preliminary conclusions described above, i.e. that the larger the tick or the smaller the spread to tick ratio, the smaller the noise for that share¹³⁹.
85. On the basis of the above three analyses and taking into consideration the pros and cons of the impact of a change in tick, the NCA proposed exploring a tick size regime whereby the spread to tick ratio should aim at lying between 1.4 and 2 ticks:
- i. the spread to tick ratio should be as small as possible to reduce noise in the book, and therefore should be close to 1, hence ideally smaller than 2¹⁴⁰;
 - ii. however the tick should not constrain the spread too much and therefore it should not be equal to one more than a relevant percentage of the time. Hence ideally a spread should be larger than 1.4.

ESMA analysis supporting Option 1

Notations and Definitions:

To facilitate the reading of the technical appendix we introduce the following notations:

$P_{i,t}$ is calculated as the last price for equity i during day t .

$L_{i,t}$ is the number of trades per day for equity i during day t .

$S_{i,t}$ is the average spread per day for equity i during day t .

Let $T_{i,t}$ be the tick of equity i at time t .

Let $T_{i,t}^*$ be the targeted tick of equity i at time t .

Let $Tick(P, L)$ be the tick for the cluster of liquidity L and Price P .

Let set of $P_{i,t}/L_{i,t}/S_{i,t}$ be a data-point/observation.

Description of the dataset:

86. The dataset needed to develop a new tick size regime (Option 1) was collected from the MiFID database (irrespective of the liquidity level of the shares) and a financial data provider.
87. Currently, the MiFID database covers about 5,900 shares admitted to trading on a regulated market (before cleaning of the data) which relate to 27 EU Member States and 2 EEA countries^[1] (shares traded on MTFs were not taken into account due to incomplete access to the dataset).

¹³⁹ The NCA ran a regression of the noise on the tick and the spread to tick ratio (i.e. Noise= A.Tick + B.spread/tick + C). The coefficients of the regression are negative for the tick (A=-491194 <0) and positive for the spread-to-tick ratio (B=424 >0). These 2 coefficients have a significance level of 0.01% and the coefficient of determination of the regression is 0.011.

¹⁴⁰ Taking into account the fact that market participants are different for less liquid stocks (especially less HFT activity), it has been decided to choose a larger range for less liquid stocks and permit the spread to lie within the range 1.4 to 5.

88. For the purpose of this exercise, different steps were undertaken, in particular:

- i. data cleaning: notably by withdrawing the information on those shares that were not usable and that could not be processed, such as data relating to instruments that have been admitted to trading on a regulated market but have never traded, data which was incomplete, etc.;
- ii. selection of the relevant data, mainly price, average spread, number of trades and applicable tick size table on the securities under consideration (it is stressed that where the necessary information and data relating to a share could not be found, then, the said share was excluded from the exercise). Furthermore, the data relates to the primary market for the security identified by the financial data provider;
- iii. observation period: 1 year of data, from 1st November 2012 to 31st October 2013.

89. This resulted in 829,076 data points and 4,220 shares. The distribution of these data points and shares per country is presented hereunder:

Country	# of Fis	# of Fis (%)	# of obs	# of obs (%)	TOTAL ADT by country	TOTAL ADT by country (%)
GERMANY	408	9.67%	89,872	10.84%	10,375,443,136	31.85%
BRITAIN	951	22.54%	183,511	22.13%	6,878,813,773	21.12%
FRANCE	475	11.26%	94,168	11.36%	4,776,592,447	14.66%
SPAIN	106	2.51%	24,771	2.99%	2,630,785,490	8.08%
ITALY	266	6.30%	63,181	7.62%	2,350,481,354	7.22%
NETHERLANDS	109	2.58%	23,805	2.87%	2,279,524,120	7.00%
SWEDEN	290	6.87%	65,934	7.95%	727,245,992	2.23%
NORWAY	206	4.88%	35,591	4.29%	608,814,187	1.87%
FINLAND	132	3.13%	27,824	3.36%	565,485,829	1.74%
BELGIUM	113	2.68%	22,971	2.77%	462,157,528	1.42%
DENMARK	159	3.77%	28,102	3.39%	363,513,685	1.12%
POLAND	420	9.95%	90,439	10.91%	218,432,089	0.67%
PORTUGAL	42	1.00%	7,051	0.85%	98,709,258	0.30%
AUSTRIA	49	1.16%	10,104	1.22%	97,996,833	0.30%
GREECE	199	4.72%	33,800	4.08%	46,086,267	0.14%
IRELAND	17	0.40%	3,818	0.46%	35,951,264	0.11%
HUNGARY	42	1.00%	6,199	0.75%	33,969,661	0.10%
CZECH	10	0.24%	1,827	0.22%	18,372,768	0.06%
ROMANIA	1	0.02%	2	0.00%	3,821,268	0.01%
BULGARIA	164	3.89%	8,553	1.03%	1,372,589	0.00%
ICELAND	13	0.31%	1,542	0.19%	1,216,176	0.00%
ESTONIA	16	0.38%	2,563	0.31%	545,771	0.00%
LITHUANIA	32	0.76%	3,448	0.42%	284,200	0.00%
4,220	100%	829,076	100%	32,575,615,685	100%	
OTHERS	-	-	-	-	2,968,905	0.01%

^[1] *i.e.*, Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.

90. Note that 90% of the turnover is concentrated among the top 6 countries in terms of average daily turnover (ADT)¹⁴¹.
91. Here below in (fig 1.) the spread is compared to the liquidity of the stock, while in (fig 2.) the spread is compared to the price of the stock. As a result, it appears that $T_{i,t}^*$ will increase as price increases and will decrease as liquidity decreases (cf fig 1. 2. and 3.).

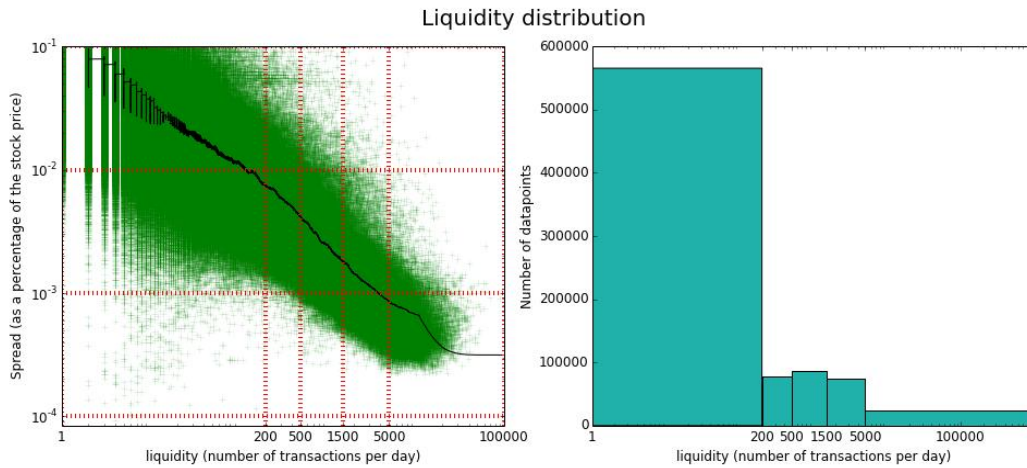


Fig 1. $\frac{S_{i,t}}{P_{i,t}} = f(L_{i,t})$

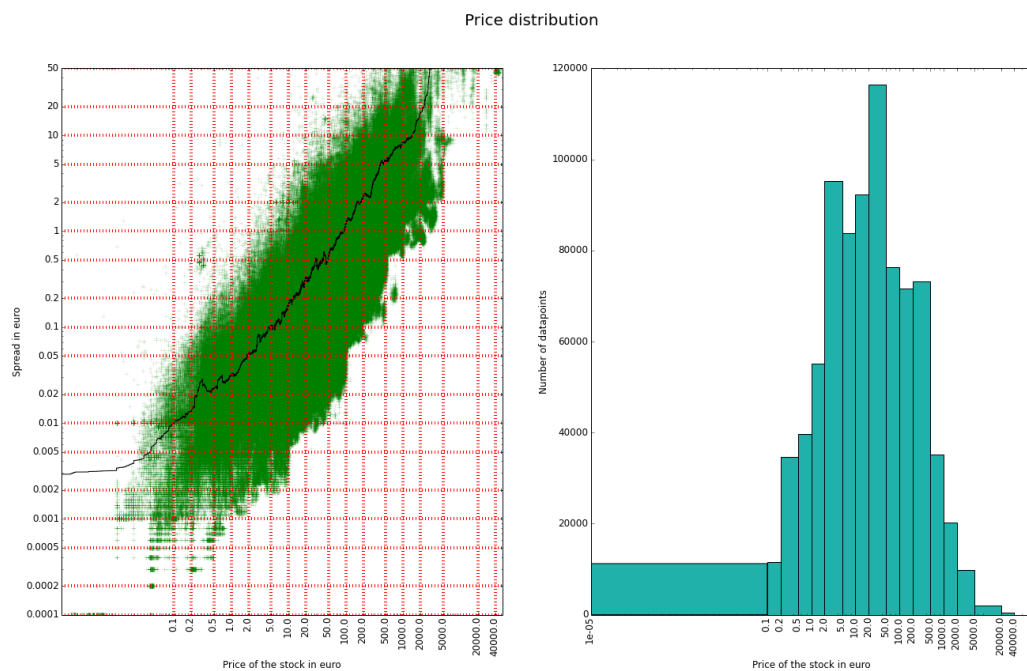


Fig 2. $S_{i,t} = f(P_{i,t})$.

¹⁴¹ The value of the ADT has been extracted from the MiFID database. This is the yearly turnover, divided by the number of trading days, excluding negotiated trades. The figure is expressed in euros including volumes that are large in scale compared to normal market size. If those large in scale trades are excluded, 90% of the turnover would still be concentrated among the top 6 countries.

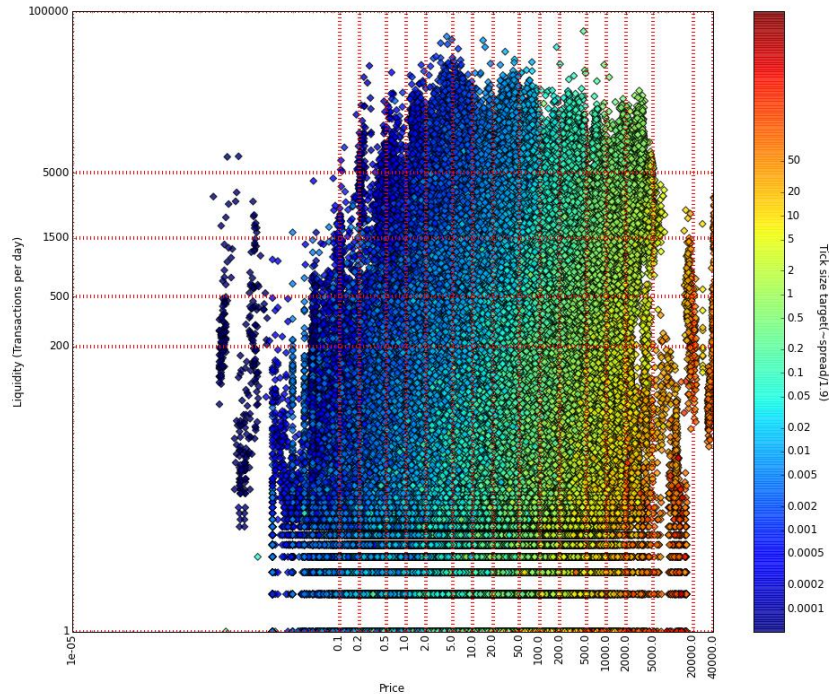


Fig 3. $T_{i,t} \propto S_{i,t} = f(P_{i,t}, L_{i,t})$

Methodology of Option 1

92. The methodology for Option 1 consists of several steps:

- i. first of all, it consists in defining the **tick size increments**: three levels of increments (1, 2 and 5) should be used for referencing both the price and tick size increments within the common tick size table for a number of reasons:
 - a. by providing for an additional level of granularity (compared to most FESE tables), this approach will obviously satisfy the characteristics of the different stocks;
 - b. more granularity would allow every stock which changes tick size classes to do so in a smoother way. One side effect of adding more granularity is that changes in tick size become more frequent but the tick size is not less stable: the tick size of a financial instrument would only move up two consecutive price classes in the same year if its price has more than doubled over that period;
 - c. this approach is intuitive as it is consistent with the European banknote and coin values (e.g., 50, 20, 10, 5, 2, 1) with which market participants are already familiar. The tick size is a dimensionless quantity and therefore doesn't depend on the currency of the stock.

Setting the minimum tick size to 0.0001 unit would lead to the following set of tick size values:

$$\text{Tick}(P,L) \in \{ (0.0001, 0.0002, 0.0005) \cdot \lfloor 10 \rfloor^n \mid n \in \mathbb{N} \}$$

- ii. once the tick size increments have been established, it is necessary to identify the **liquidity profile indicator** (proxy of liquidity) for the common tick size table. After contemplating possible measures, it is considered that the most relevant indicator is the average number of transactions

per trading day. This indicator has many merits: it is easy to obtain, assess and integrate in the common tick size model while being very stable. Moreover, as this liquidity profile indicator does not directly depend on stock prices, it does not constitute redundant¹⁴² information in the common tick size table;

- iii. the next step consists in determining the **price and liquidity classes** of the common tick size table, as well as, the **targeted spread to tick ratio range**. In light of the previous determinations, the price entries are established on the basis of the European banknote and coin values whereas the liquidity entries are created with a view of avoiding redundancies and keeping a relevant control group for each liquidity class (*i.e.*, a relevant sample of data-points that will not change tick size). The determination of these three parameters should not be regarded as three independent and subsequent steps but rather as a combination. Indeed, price and liquidity classes are defined so as to ensure that for each class the spread (in ticks), and therefore the viscosity of the price, is homogeneous. Finally, the targeted spread to tick ratio ranges is determined so as to associate a tick size to each price-liquidity cluster;
- iv. the number of ticks in the bid-ask spread was first set to the range 1.4 - 2 on the basis of the above mentioned survey undertaken by an NCA. Afterwards, the range was slightly modified so as to obtain a moderate impact on the EU and as to soften the impact on less liquid shares. As a result, a spread to tick ratio range was set to 1.4-2.5 for liquid stocks (*i.e.*, falling within the top liquidity bands of the tick size table - in this exercise, stocks trading more than 500 times a trading day) and to 1.4-5 for less liquid stocks (*i.e.*, falling within the last liquidity bands of the tick size table - in this exercise, stocks trading less than 500 times a trading day);
- v. the next step consists in obtaining the tick size table by means of an algorithm and on the basis of the parameters set above. The algorithm selected the most relevant tick size for each price-liquidity cluster to maximise the homogeneity in terms of average spread over tick for all data-points with respect to the targeted spread to tick ratio range.

In other words, for the set of measurement $P_{i,t}/L_{i,t}/S_{i,t}$ the algorithm selects the tick size ($T_{i,t}^*$) that should be applied to equity i during day t such that the spread to tick ratio is close to the targeted range defined as follow:

$$\begin{cases} \frac{S_{i,t}}{T_{i,t}^*} \in [1.4; 2.5] \text{ if } L_{i,t} \geq 500 \\ \frac{S_{i,t}}{T_{i,t}^*} \in [1.4; 5] \text{ if } L_{i,t} < 500 \end{cases}$$

Then, for each liquidity range L and price range P a tick $\text{Tick}(P, L)$ close to $T_{i,t}^*$ for each data-point lying within range (P, L) , (*i.e.* each observation $S_{i,t}$ such that $L_{i,t} \in L$ and $P_{i,t} \in P$) is selected. The closeness between the targeted tick $T_{i,t}^*$ and the tick size selected for the price-liquidity cluster $\text{Tick}(P, L)$, is estimated by a “cost” or “decision” function embedded in the algorithm. This function facilitates the decision process of choosing which tick should be considered for each liquidity range L and price range P . By definition, this function should be equal to zero in the tar-

¹⁴² Indeed, the price is present on the x-axis and does not appear on the y-axis

geted range and penalise efficiently spread to tick ratios that are out of the range. The selected cost function is the following:

$$Cost\ Function(spread, tick\ size) = \begin{cases} \left[1 + \frac{tick}{spread}\right]^3 - \left[1 + \frac{1}{min}\right]^3 & \text{if } \frac{spread}{tick} < min \\ 0 & \text{if } min \leq \frac{Spread}{Tick} < max \\ \left[\frac{(spread - max * tick)}{tick}\right]^2 & \text{if } \frac{spread}{tick} \geq max \end{cases}$$

Min = lower bound of the spread to tick ratio range
Max = upper bound of the spread to tick ratio range

The algorithm, by means of the above mentioned cost function, selects the tick size for each liquidity and price range by solving the following formula:

For each class (P, L) find the Tick(P, L) such that:
median{Cost(S_{i,t}, Tick(P, L)) where L_{i,t} ∈ L and P_{i,t} ∈ P} is minimal

Note: The cost function was adjusted after testing different functions over several scenarios on the basis of the size of the control group resulting in each scenario. The resulting tick size table is not very sensitive to the choice of the cost function.

The tick size table with four liquidity bands resulting from the algorithm is the following:

Price range =>	0-0.1	0.1-0.2	0.2-0.5	0.5-1	1-2	2-5	5-10	10-20	20-50	50-100	100-200	200-500	500-1,000	1,000-2,000	2,000-5,000	5,000-20,000	>20,000
liquidity range 1-199	0.002	0.005	0.005	0.005	0.01	0.02	0.05	0.05	0.1	0.2	0.5	1	2	2	10	50	50
liquidity range 200-499	0.0002	0.0005	0.002	0.002	0.005	0.005	0.01	0.02	0.05	0.1	0.2	0.5	0.5	1	2	20	20
liquidity range 500-1499	0.0002	0.0005	0.001	0.001	0.002	0.005	0.01	0.01	0.02	0.05	0.1	0.2	0.5	1	2	20	20
liquidity range 1500-999999	N/A	0.0005	0.0002	0.0005	0.001	0.002	0.005	0.005	0.01	0.02	0.05	0.1	0.5	1	1	5	20

(*) the result is N/A when there are not enough data-points to select the tick size for the cluster.

The table above was chosen after running the algorithm using different:

- liquidity ranges (in terms of number and size of the classes);
- cost functions (in terms of number and type of cost functions used);
- targeted spread to tick ratio ranges.

More specifically, fifteen different scenarios were analysed and compared as to select the above table by means of the impact assessment. The drivers of the selection were:

- the relevant size of the control group,
- avoiding extreme increase or decrease of the tick for each liquidity/price classes.

vi. The last step is the **refinement of the tick size table**. This step aims at making the table easy to read and to have a change in tick across price/liquidity clusters. The refinement can either be

done manually or by adding a new constraint to the algorithm. The refinement presented below was done manually, redundancy is reduced and the table is more “user-friendly”.

Original Table with four liquidity classes:

Price range =>	0-0.1	0.1-0.2	0.2-0.5	0.5-1	1-2	2-5	5-10	10-20	20-50	50-100	100-200	200-500	500-1,000	1,000-2,000	2,000-5,000	5,000-20,000	>20,000
liquidity range 1-199	0.002	0.005	0.005	0.005	0.01	0.02	0.05	0.05	0.1	0.2	0.5	1	2	2	10	50	50
liquidity range 200-499	0.0002	0.0005	0.002	0.002	0.005	0.005	0.01	0.02	0.05	0.1	0.2	0.5	0.5	1	2	20	20
liquidity range 500-1499	0.0002	0.0005	0.001	0.001	0.002	0.005	0.01	0.01	0.02	0.05	0.1	0.2	0.5	1	2	20	20
liquidity range 1500-999999	N/A	0.0005	0.0002	0.0005	0.001	0.002	0.005	0.005	0.01	0.02	0.05	0.1	0.5	1	1	5	20

Refinement of the table with four liquidity classes:

Price range =>	0-0.1	0.1-0.2	0.2-0.5	0.5-1	1-2	2-5	5-10	10-20	20-50	50-100	100-200	200-500	500-1,000	1,000-2,000	2,000-5,000	5,000-20,000	>20,000
liquidity range 1-199	0.0002	0.0005	0.001	0.002	0.005	0.01	0.02	0.05	0.1	0.2	0.5	1	2	5	10	20	50
liquidity range 200-499	0.0001	0.0002	0.0005	0.001	0.002	0.005	0.01	0.02	0.05	0.1	0.2	0.5	1	2	5	10	20
liquidity range 500-1499	0.0001	0.0001	0.0002	0.0005	0.001	0.002	0.005	0.01	0.02	0.05	0.1	0.2	0.5	1	2	5	10
liquidity range 1500-999999	0.0001	0.0001	0.0001	0.0002	0.0005	0.001	0.002	0.005	0.01	0.02	0.05	0.1	0.2	0.5	1	2	5

Once the tick size table is refined, it is ready to be implemented as follows: each year the liquidity range to which a share belongs is determined on the basis of the annual calculation of the daily average number of trades. However, for shares trading in a fixing segment the tick sizes applicable are those related to the least liquid range (1-199). As a result, intra-day tick size changes can only occur due to price changes.

Complementary steps of the methodology: Impact assessment and Sensitivity analysis

Impact assessment

93. The **impact assessment** is used to identify the benefits and drawbacks of the proposed tick size table, to draw comparisons with the different tick size tables being currently applied to the securities under consideration and to fine-tune the preliminary tick size table.
94. In particular, in order to be able to further assess the impact of the new tick size regime, it was considered necessary to maintain a relevant control group. The control group represents the number of shares not changing tick size after the implementation of the new tick size regime. A reasonable minimum size for the control group was set to be around 10% of the observations.
95. The results of the “per liquidity class impact assessment” of the refined tick size table with four liquidity bands are presented hereunder. In the first table, the number of data-points, the average and median spread to tick ratio before and after the implementation of the above tick size table is presented for each liquidity band. The second table below includes the number of shares not changing/increasing and decreasing tick as well as the average and median increase/decrease in tick for each liquidity band and the percentage of turnover corresponding to each liquidity class.

	# OF DATAPOINTS	CURRENT SITUATION		NEW SITUATION	
		AVERAGE SPREAD/TICK	MEDIAN SPREAD/TICK	AVERAGE SPREAD/TICK	MEDIAN SPREAD/TICK
liquidity range : 1-199	565457	130.2	11.3	9.4	4.8
liquidity range : 200-499	77594	9.9	6.0	4.0	2.8
liquidity range : 500-1499	86680	6.3	4.2	4.1	2.7
liquidity range : 1500-999999	99345	3.4	2.6	3.7	2.8

96. Please note that, the values related to the “new situation” are calculated on the basis of the current spread, i.e. implicitly assuming that the spread will not be affected by the change in tick. For instance if the tick is multiplied by two the new spread-to-tick ratio is approximated by the current spread divided by the new tick and, as a result, the new spread to tick will be halved.

97. The main conclusions of the impact assessment were:

- i. for the liquid end of the spectrum (more than 500 trades per day), under Option 1 there would be:
 - a. no less than 32 %¹⁴³ of the liquid shares that would increase their tick (reaching 53% for shares in the range of 500-1499). The overall median increase of the tick for liquid shares (x2) would lead to a decrease of the spread to tick ratio. As an example, a liquid share currently traded with a tick of 0.01 having the median x2 increase of its tick would trade with a tick of 0.02;
 - b. for the most liquid shares (liquidity range >1500), the impact on the stocks would be evenly split, with one third increasing by one tick size level, one third unchanged and one third decreasing by one tick size level.
- ii. for two third of illiquid shares the median increase of the tick would be by 4 or 5 times. Again, it would lead to a decrease of the spread to tick ratio. As an example, for shares in the liquidity range 1-199 the median spread to tick ratio would move from 11.3 to 4.8;
- iii. the median increase/decrease is a more relevant measure than the mean increase/decrease as it is not biased by some extreme observations

	Percentage of turnover (MiFID database)	Number of shares for which the tick size does not change	Number of shares for which the tick size increases	Number of shares for which the tick size decreases	Median Increase	Average Increase	Median Decrease	Average Decrease
Liquidity range: 1 - 199	0.94%	16%	62%	21%	x 5	x 12	x (1 / 2)	x (2 / 5)

¹⁴³ Turnover weighted

Liquidity range: 200 - 499	0.93%	8%	69%	22%	x 4	x 5	x (1 / 2)	x (2 / 5)
Liquidity range: 500 - 1499	2.75%	34%	53%	11%	x 2	x 3	x (1 / 5)	x (3 / 10)
Liquidity range: 1500 - 999999	93.37%	34%	32%	32%	x 2	x 2	x (1 / 2)	x (2 / 5)

The results of the ‘per country impact assessment’ are presented hereunder:

NCA	Country Code	# stocks	# observations	Current Spread to tick ratio distribution		Forecasted spread to tick ratio		Impact assessment						
				Median	Standard dev	Median	Standard dev	Control sample	Increase sample	Decrease sample	Median increase	Median decrease	Mean increase	mean decrease
FMA	AUSTRIA	49	10104	25.0	62.6	2.4	5.0	0%	99%	0%	x10	NA	x11,7	NA
FSMA	BELGIUM	113	22971	10.1	1325.8	2.8	11.7	10%	76%	13%	x5	/5	x20,85	/4,2
FCA	BRITAIN	951	183511	7.0	35.7	3.7	32.9	15%	61%	23%	x4	/2	x3,64	/1,8
FSC	BULGARIA	164	8553	83.2	159530.6	13.9	225.2	8%	85%	6%	x10	/5	x157,98	/3,1
Czech National Bank	CZECH	10	1827	15.2	27.2	2.4	17.9	0%	99%	0%	x10	/5	x9,71	/6,7
Finanstilsynet DK	DENMARK	159	28102	3.7	15.3	4.4	12.1	38%	25%	35%	x2	/2,5	x2,61	/2,6
Finantsinspeksioon	ESTONIA	16	2563	3.6	10.2	3.0	7.9	20%	46%	32%	x2	/2	x2	/2
Fiva	FINLAND	132	27824	3.2	13.0	3.3	9.9	33%	34%	32%	x5	/2,5	x4,55	/3,2
AMF	France	475	94168	6.7	1436.0	2.8	7.6	16%	70%	13%	x5	/2	x10,13	/2,9
BaFin	GERMANY	408	89872	29.3	83.9	3.6	11.5	4%	93%	2%	x10	/5	x10,56	/4,3
HCMC	GREECE	199	33800	13.3	42.2	14.5	25.4	31%	28%	40%	x2	/2	x2,73	/2,6
MNB	HUNGARY	42	6199	10.8	104.4	16.3	53.8	42%	28%	29%	x2	/10	x3,1	/4,3
FME	ICELAND	13	1542	5.4	4.4	2.8	2.5	23%	69%	6%	x2	/2,5	x3,06	/2,5
Central Bank of Ireland	IRELAND	17	3818	15.9	22.3	3.0	4.8	0%	87%	12%	x5	/5	x8,15	/4,2
CONSOB	ITALY	266	63181	12.5	27.7	4.0	4.0	13%	75%	10%	x5	/2	x5,07	/2,1
LB	LITHUANIA	32	3448	2.4	12.6	2.7	48.0	28%	37%	33%	x2	/2	x2	/2,1
AFM	NETHERLANDS	109	23805	10.9	74.1	2.9	8.9	15%	78%	6%	x10	/2	x9,01	/2,9
Finanstilsynet	NORWAY	206	35591	3.6	13.5	4.6	11.1	50%	13%	36%	x2	/2	x2,03	/2
Polish FSA	POLAND	420	90439	8.0	78.0	6.3	10.1	17%	48%	34%	x5	/5	x8,27	/3,7
CMVM	Portugal	42	7051	2.9	7.6	5.0	13.0	28%	26%	45%	x2	/5	x6,06	/4,5
CNVM	ROMANIA	1	2	349.3	2.2	87.3	0.6	0%	100%	0%	x4	NA	x4	NA
CNMV	SPAIN	106	24771	4.6	11.9	4.2	4.9	35%	40%	24%	x2	/2,5	x3,72	/2,9
Finansinspektionen	SWEDEN	290	65934	2.6	26.7	3.2	8.4	38%	18%	42%	x2	/2	x3,72	/2
TOTAL		4220	829076	7.3	16224.3	4.0	30.4	20%	56%	22%	x5	/2	x9,78	/2.4

One should note the following elements:

- the median increase/decrease is a more relevant measure that the average increase/decrease as it is not biased by some extreme observations¹⁴⁴;
- an increase by ‘x2’ or a decrease ‘x(1/2)’ corresponds to a 1 tick level increase/decrease which is often the 0.2 increment added in the regime;
- an increase by ‘x5’ or a decrease ‘x(1/5)’ corresponds to 2 tick levels increase/decrease;
- with the new regime all stocks are treated in a more homogeneous manner, it leads, in general, to a smaller standard deviation in the spread to tick ratio distribution over all stocks.

Sensitivity analysis

¹⁴⁴ For example a very poorly liquid stock with only a bid or an ask will lead to a very large spread to tick ratio and therefore will increase the average spread/tick ratio but not the median.

98. Besides the impact assessment, a **sensitivity analysis** was carried out to ensure that the control group is not too sensitive to different targeted ranges. The table below shows the results of the sensitivity analysis related to the tick size table with four liquidity bands. This analysis was carried out by changing the spread to tick ratio range – twenty different scenarios were tested.

The table below shows the twenty different spread to tick ratio ranges tested

	Lower bound	Upper bound Liquid classes	Upper bound Illiquid classes
1	1.2	2.0	4.5
2	1.3	2.0	4.5
3	1.4	2.0	4.5
4	1.5	2.0	4.5
5	1.6	2.0	4.5
6	1.2	2.2	4.7
7	1.3	2.2	4.7
8	1.4	2.2	4.7
9	1.5	2.2	4.7
10	1.6	2.2	4.7
11	1.2	2.5	5.0
12	1.3	2.5	5.0
13	1.4	2.5	5.0
14	1.5	2.5	5.0
15	1.6	2.5	5.0
16	1.2	3.0	5.5
17	1.3	3.0	5.5
18	1.4	3.0	5.5
19	1.5	3.0	5.5
20	1.6	3.0	5.5

99. The results presented in the tables here below indicated that the control group is not too sensitive to changes in the spread to tick ratio range. Indeed, for the less liquid band the control group is constantly between 8% and 11% and for the most liquid band is constantly between 30% and 45% across the different scenarios.

NO CHANGE	SCENARIO 1	SCENARIO 2	SCENARIO 3	SCENARIO 4	SCENARIO 5	SCENARIO 6	SCENARIO 7	SCENARIO 8	SCENARIO 9	SCENARIO 10
liquidity range : 1-199	8%	13%	11%	11%	11%	11%	11%	11%	11%	11%
liquidity range : 200-499	12%	12%	12%	12%	12%	12%	12%	12%	12%	12%
liquidity range : 500-1499	29%	31%	31%	31%	31%	31%	31%	31%	31%	31%
liquidity range : 1500-999999	33%	33%	34%	34%	45%	33%	30%	34%	45%	45%

NO CHANGE	SCENARIO 11	SCENARIO 12	SCENARIO 13	SCENARIO 14	SCENARIO 15	SCENARIO 16	SCENARIO 17	SCENARIO 18	SCENARIO 19	SCENARIO 20
liquidity range : 1-199	11%	11%	11%	11%	11%	11%	11%	11%	11%	11%
liquidity range : 200-499	15%	15%	15%	15%	15%	29%	29%	29%	29%	29%
liquidity range : 500-1499	31%	31%	31%	31%	31%	31%	31%	31%	31%	31%
liquidity range : 1500-999999	33%	34%	45%	45%	43%	45%	45%	43%	43%	40%

Annex 4.8.2. Technical Annex for Option 2 on Tick Sizes

The following steps are taken to establish an appropriate tick size for instruments admitted to the pan-European tick size regime.

Step 1 - Initial calibration based on the liquidity profile

For all instruments admitted to the regime, the pan-European tick size table based on price, and the liquidity classification per existing MiFID definition¹⁴⁵ is applied. A separate tick size table for liquid and illiquid instruments is proposed under Option 2, which takes into account the desirability of enabling reasonably stable prices without unduly constraining further narrowing of spreads, as stipulated under Article 49 of MiFID II.

100. The existing tick size regimes adopted by most exchanges take into account the price, but not the liquidity, of a financial instrument, as is required under Article 49 of MiFID II. This provision requires that the liquidity and the desirability of enabling reasonably stable prices without unduly constraining further narrowing of spreads are also taken into account, and to adapt the tick size for each financial instrument in an appropriate manner.
101. In fulfilling the above requirement, financial instruments that are admitted to the pan-European tick size regime will trade in the first instance based on the price of the instrument, and where available data exists, for liquidity as defined under MiFID II. Where the instrument does not have a previous track record with respect to liquidity, that instrument will be deemed in the first instance as illiquid and the tick size bands for illiquid instruments are applied.

Step 2 - Assign a tick size band based on price after considering liquidity

Once the liquidity of the instrument has been determined, initial trading will take place using the appropriate tick size bands based on the price of the instrument. The tick size will then be subject to an on-going recalibration to reflect any changes in price which result in a movement between price bands.

102. In general, tick sizes should be granular enough to provide a meaningful price improvement, without generating excessive friction. Once liquidity has been considered as per above, price would be the only dynamic factor with which to determine the appropriate tick size during the normal course of trading.
103. Under Option 2 it is proposed to use as the basis of its tick size regime, a tick size table modelled on FESE's existing "Table 2"¹⁴⁶, as adopted by major regulated investment exchanges and are therefore familiar to many investors. This table was identified as the most granular among the four tables FESE

¹⁴⁵ESMA is aware that Article 2 of MiFIR contains a mandate to advise on the meaning of "liquid market". The current approach may be applicable only for the determination of the tick size and not for any other purposes. Commission Regulation (EC) No 1287/2006 of 10 August 2006: Shares admitted to a regulated market are considered to have a liquid market if the share is traded daily, with a free float of not less than EUR 500 million, and one of the following conditions is satisfied:

- a. the average daily number of transactions in the share are not less than 500;
- b. the average daily turnover for the share is not less than EUR 2 million. To be replaced by Article 2.1 (17) MiFIR in due course.

¹⁴⁶ http://www.fese.eu/_lib/files/UPDATED_FESE_TICK_SIZE_TABLES_AS_OF_OCT_2012.pdf

has published, having 17 bands over the price range of 0 to 100,000. This table uses three levels of increments (1, 2 and 5 in lieu of 1 and 5 under other FESE tables). By providing for an additional level of granularity compared to other FESE tables, this table will accommodate the characteristics of different stocks, allowing for stocks to change between the tick size bands in a smoother manner over twenty bands. At the lower limit of each band, the tick as a percentage of the price is fixed at 10bp, and at the upper limit the tick ranges from 2bp to 8bp.

104. Trading would initially take place based on price and liquidity considerations alone. After six weeks, a sufficient amount of trade data should exist to take into consideration the average bid-ask spread of the instrument.

Step 3 - Initial 6 weeks review taking into account the average bid-ask spread

The average bid-ask spread will be recorded for the six weeks post entry into the regime. If the tick size band assigned to an instrument, after liquidity and price considerations, results in an average spread of two ticks or less over the initial period, then a lower tick size band will be assigned to allow for the spread to remain greater than two ticks. This value, which dictates by how many bands should the tick size band move relative to its natural state without such adjustments, is recorded as Spread Adjustment Factor (SAF). The same SAF is used throughout the rest of the trading year once recorded in the MiFID Database.

105. The average bid-ask spread is an important factor to consider when calibrating the tick size regime under Option 2. Under this option the trade data in the first six weeks of the instrument being admitted to the regime will be used to calculate the average bid-ask spread.
106. Consideration has been given to the degree of impact a change in the spread should have in determining the tick size band for an instrument. Under most existing tick size regimes, only changes in price are taken into consideration, when the price increases a higher band is selected, and vice versa. Narrowing of the bid-ask spread is an indication of a more actively traded market, and coupled with the observation of a price increase, there is a scope to justify constraining the market in an effort to stabilise the price. The risk here would be to constrain the narrowing of the spreads unduly.
107. Review of the average bid-ask spread is scheduled to take place after a six week observation period as a way to provide an opportunity to recalibrate where this becomes necessary. This is borne out of the requirement in Article 49(2)(b) of MiFID II to ensure that the tick size adapted is appropriate.
108. Under Option 2 it is considered that the appropriate response to a narrowing spread would be to shift to a lower band of the tick size table to allow for a wider spread. Conversely, in a trading environment where the spread is widening, there is less need to stabilise the price. Under Option 2 a spread that is less than two ticks would be considered as too narrow and could be seen to be constraining.
109. The outcome of the above will be recorded in the MiFID database as SAF. Once recorded, all trading venues must apply the SAF to adjust the tick size band in use for the subsequent period.

Step 4 - Normal trading using SAF as appropriate

Once the initial calibration has been completed, daily trading would continue based on the use of appropriate tick size table, factoring the liquidity and SAF appropriately.

110. The proposed regime will require investors to keep in mind the tick size band, and knowledge of SAF for a particular instrument in that period which would adjust the applicable size band in a mechanical manner.
111. As stated above, the SAF dictates how many bands the tick size would move to allow the spread to tick ratio to be above 2. When the spread to tick ratio is above 2 the SAF will be zero and no shifts in the tick size band are necessary.

Example

112. For a liquid share with a price of €15 the tick size based on price would be 0.01. If, however, the average spread of the share is 0.015 the spread to tick ratio would be equal to 1.5 (0.015/0.01). A SAF of 1 is necessary to ensure the spread to tick ratio is above 2. By shifting the tick size band by one step a spread to tick ratio above 2 is achieved. The table below shows the adjustments in tick size for liquid shares when an SAF of 1 is applied. The SAF can be greater than 1 if a more aggressive shift is required.

Price band		Example SAF adjustments	
Lower limit	Upper limit	Tick size based on price	Tick Size when SAF=1
-	0.4999	0.0001	0.0001
0.5	0.9995	0.0005	0.0001
1	1.999	0.001	0.0005
2	4.998	0.002	0.001
5	9.995	0.005	0.002
10	19.99	0.01	0.005
20	49.98	0.02	0.01
50	99.95	0.05	0.02
100	199.9	0.1	0.05
200	499.8	0.2	0.1
500	999.5	0.5	0.2
1000	1999	1	0.5
2000	4998	2	1
5000	9995	5	2
10000	19990	10	5
20000	39980	20	10
40000	49960	40	20
50000	79950	50	40
80000	99920	80	50
100000	-	100	80

Step 5 - Annual review: recalibration to reflect the current liquidity and spreads

All instruments admitted to the pan-European tick size regime will be subject to a periodical review to ensure that a calibration remains appropriate to the instrument. The review will take place on an annual basis, mirroring the existing annual MiFID review cycle, taking into account the previous period immediately preceding the review. During this review the band that an instrument is placed in will be revised with consideration to the average bid-ask spread and instruments which have become liquid, as per the out-

lined approach, will be admitted to the liquid regime. Once the review has been completed and necessary changes have taken place, the MiFID database will be updated to reflect any changes made to the SAF.

113. For all instruments admitted to the pan-European tick size regime, an annual review takes place to ensure that any changes in the tick size band, as a result of a change in price, or changes in the liquidity characteristics or spreads, remains appropriate for the instrument and that the spread has not become unduly constrained.
114. The annual review cycle would mirror the existing cycle for the publication of pre-and post-trade transparency data¹⁴⁷ as under Option 2, existing practices are leveraged where appropriate. The review would take place promptly after the end of each calendar year, and completed within the three months after the end of the relevant year. The new parameters will be used from April through to March the following year.
115. A periodic review is necessary to ensure that the parameters by which financial instruments were admitted to the pan-European tick size regime remain valid and up-to-date. Therefore an ongoing review is envisaged on an annual basis. Where, as a result of the review, a change is required, this would be reflected in the MiFID database.

Step 6 – Manual intervention by the regulators

All instruments admitted to the pan-European tick size regime would be subject to manual intervention by ESMA or the primary NCA of the instrument in question.

116. In an unforeseen circumstance, regulators may need to intervene in the trading process. It is envisaged that this could be done through the manual adjustment to the SAF. Once a revised SAF has been published on the MiFID database, the new SAF would become effective, requiring all regulated markets to apply the changes promptly.

Impact Assessment

117. This analysis presents the impact that implementation of Option 2 would have on 4,220 cash equity instruments from 23 countries across Europe¹⁴⁸. An overview of the methodology is presented below and followed by the results of the impact analysis.

Assessment Methodology

Step 1: Assessing the liquidity profile

118. The first step in completing the analysis was to determine whether an instrument was liquid or illiquid. This distinction was made by referencing the status of the equity in the MiFID database. Instruments with an average number of daily transactions over 500 were also considered liquid.

¹⁴⁷ Article 33 Commission Regulation (EC) No 1287/2006

¹⁴⁸ The data set considered is the same as the one used under Option 1.

Status in MiFID database or average number of transactions >500	Number of ISINs
Illiquid	3,307
Liquid	913
Total	4,220

Step 2: Placing the instrument based on price

119. After the liquidity profile had been assessed a tick size was assigned to the equity based on price alone. The liquidity profile dictated whether this price-based tick size was assigned using the tick size in the liquid or illiquid column of the tick size table.

Step 3: Adjusting price based tick size for average bid-ask spread

120. Once a tick size had been assigned to an instrument based on price the average bid-ask spread was then factored in. The average spread was calculated for each equity instrument and divided by the tick size assigned on price alone. If the average spread to tick ratio was lower than two, the tick size was adjusted to ensure that the spread was not being unduly constrained. A breakdown of the instruments which required further adjustment is provided below.

<2 required Tick size reduced	Number of ISINs
Illiquid equities	
Average spread/Tick assigned by price ≥ 2	3,206
Average spread/Tick assigned by price < 2	101
Total Illiquid	3,307
Liquid equities	
Average spread/Tick assigned by price ≥ 2	477
Average spread/Tick assigned by price < 2	436
Total Liquid	913
Grand total illiquid and liquid	4,220

121. A greater proportion of liquid equities required an adjustment of the tick size assigned to them based on price. This is not unexpected as these instruments tend to have narrower spreads. A tick size based on price alone, therefore, may be too large and could unduly constrain the spread. To allow for an average spread/assigned tick size above two the size of the tick was reduced for these instruments.

122. The table below shows a breakdown of the SAF required to ensure the average spread to tick ratio was greater than two. The majority of equity instruments required shifting by just one table band to ensure this. Only one illiquid instrument required an adjustment by two bands. There was a greater range of adjustment for liquid instruments as expected. Liquid instruments have narrower spreads and in considering average bid-ask spread during calibration, this was likely to feature more prominently in their placement within the tick size regime.

	Spread Adjustment Factor (SAF)	Number of ISINs
Illiquid equities	0	5
	1	95

	2	1
	3	0
	4	0
	Total: Ave spread/tick <2	101
Liquid equities	0	4
	1	313
	2	110
	3	9
	4	0
	Total: Ave spread/tick <2	436

123. After assessing the liquidity profile, price and average bid-ask spread a new tick size was assigned to each instrument. To measure the impact of this calibration on the tick size of the instrument the newly assigned tick size was compared to the tick size on the last date available for that equity within the analysed dataset.

Results of the Impact Analysis¹⁴⁹

Impact on tick sizes

124. The results show a much greater impact on the tick size of illiquid equities than liquid equities. The number of equities which see an increase or decrease in tick size is broadly equal but the impact on illiquid equities is much greater. The data analysis did result in some anomalous results within certain jurisdictions. A breakdown by country has also been included to provide some insight as to where the greatest impact is likely to be seen.

	Number / % of equities unchanged	Equities with an increase in tick size		Equities with a reduction in tick size		Total
		Number of equities	Average increase	Number of equities	Average decrease	
Illiquid	396 (12.0%)	1,452 (43.9%)	1,765%	1,459 (44.1%)	-60%	3,307 (100.0%)
Liquid	329 (35.6%)	322 (35.3%)	179%	262 (29.1%)	-61%	913 (100.0%)

125. The results show a clear anomaly in the impact the tick size regime would have on tick sizes in Bulgaria. This average increase of 13,730% has sharply skewed the average increase across the EU. As these instruments were all illiquid instruments, it has resulted in dramatic increases in tick sizes.

Impact on tick sizes by country				
Country	Number	Number of	Increase in tick size	Reduction in tick size

¹⁴⁹ The % increases/decreases presented in this impact analysis were calculated as follows: (New tick size/Old tick size)-1

	of ISIN	equities unchanged	Number of equities	Average increase	Number of equities	Average decrease
NETHERLANDS	109	17	72	432%	20	-68%
AUSTRIA	49	2	46	543%	1	-50%
GERMANY	408	34	347	475%	27	-60%
UNITED KINGDOM	951	151	357	145%	443	-50%
BELGIUM	113	18	72	1,710%	23	-78%
BULGARIA	164	25	104	13,730%	35	-50%
NORWAY	206	40	6	150%	160	-60%
DENMARK	159	38	15	160%	106	-66%
FRANCE	475	78	272	2,368%	125	-66%
SWEDEN	290	24	28	154%	238	-59%
GREECE	199	56	9	322%	134	-58%
CZECH REPUBLIC	10	0	8	475%	2	-94%
POLAND	420	72	159	521%	189	-73%
ESTONIA	16	6	0	-	10	-72%
SPAIN	106	38	34	218%	34	-63%
PORTUGAL	42	9	7	257%	26	-83%
FINLAND	132	37	25	182%	70	-69%
ICELAND	13	5	2	100%	6	-58%
HUNGARY	42	9	10	250%	23	-68%
IRELAND	17	0	15	247%	2	-70%
ROMANIA	1	0	1	100%	0	-
ITALY	266	54	185	194%	23	-54%
LITHUANIA	32	8	0	-	24	-56%
Total	4,220	725	1,774		1,721	

Impact on average spread to tick ratio

126. The impact of the average spread to tick ratio appears pronounced if the mean of the average spread to tick ratio is compared. For illiquid instruments there is a large reduction in the average spread to tick ratio as a result of increase in tick sizes, due to the outliers skewing the whole dataset. However, taking the median value which reduces the effect of the outliers, the impact of the tick sizes are less pronounced. In percentage terms, implementation of the new tick size regime results in the reduction of average spread-to-tick ratio for illiquid and liquid instruments of 11% and 3% respectively. Please note that the mean and median of the average spread to tick ratio related to the new tick sizes are calculated on the basis of the current spread, i.e. implicitly assuming that the spread will not be affected by the change in tick. For instance if the tick is multiplied by two the new spread to tick ratio is approximated by the current spread divided by the new tick and, as a result, the new spread to tick ratio will be halved.

	Number of ISINs	Current tick sizes		New tick sizes		% Change Based on the Median of Average Spread/Tick
		Mean of Average Spread/Tick	Median of Average Spread/Tick	Mean of Average Spread/Tick	Median of Average Spread/Tick	
Illiquid	3,307	1,494.0	14.4	54.1	12.8	-11%
Liquid	913	5.6	3.4	5.8	3.3	-3%

5. Data publication and access

5.1. General authorisation and organisational requirements for data reporting services (Article 61(4), MiFID II)

Background/Mandate/Empowerment

1. According to Recital 115 of MiFID II, the provision of core market data services should be subject to authorisation and regulation to ensure the necessary level of quality, as these are pivotal both for users to be able to obtain a desired overview of trading activity across Union markets, and for competent authorities to receive accurate and comprehensive information on relevant transactions.
2. The category of data reporting services (DRS) includes approved publication arrangements (APAs), consolidated tape providers (CTPs) and approved reporting mechanisms (ARMs).
3. Under Article 59(1) of MiFID II, where the provision of DRS constitutes a regular occupation or business, then that service shall be subject to prior authorisation by the Home Member State NCA. The competent authority will only grant authorisation where it is fully satisfied that the applicant complies with all the requirements of MiFID II. These requirements include organisational requirements imposed on DRS providers under Articles 64-66 of MiFID II. The Home Member State shall ensure that the authorisation specifies the data reporting service which the DRS provider is authorised to provide. This authorisation shall be valid for the entire Union and shall allow a DRS provider to provide throughout the Union the services for which it has been authorised.
4. According to Article 61 (2) of MiFID II, the DRS provider shall provide all information, including a programme of operations setting out inter alia the types of services envisaged and the organisational structure necessary to enable the NCA to satisfy itself that the DRS provider has established all the necessary arrangements to meet its obligations under Title V – Data Reporting Services of MiFID II. Before approving a DRS, a NCA would need to ensure that the applicant meets stringent criteria.
5. Under Article 61(5) of MiFID II, ESMA shall develop draft implementing technical standards in relation to the standard forms, templates and procedures and provision of information and notifications to enable competent authorities to be satisfied that the DRS provider has, at the time of initial authorisation, all the necessary arrangements to meet its obligations under Title V of MiFID II.
6. ESMA has also been asked to determine the information that the DRS provider will be required to provide about members of its management body and of any changes to its membership. According to Article 63(3) of MiFID II, the obligations include the requirement to notify or provide information to the competent authority to demonstrate that the entity is being managed in a sound and prudent way and in a manner that promotes the integrity of the market and the interest of its clients.

Article 61(4), MiFID II

4. *ESMA shall develop draft regulatory technical standards to determine:*

(a) the information to be provided to the competent authorities under paragraph 2, including the programme of operations;

(b) the information included in the notifications under Article 63 (3)]. [...]

7. The material requirements that APAs should meet to be authorised by NCAs were analysed in CESR Technical Advice published in July 2010¹⁵⁰. CESR included in its Technical Advice guidance on the organisational requirements and types of services envisaged in order to be approved as an APA. This guidance included a comprehensive list of requirements regarding dissemination, security, identification of incomplete or potentially erroneous information, correction of trade information, monitoring, operational hours, resources and contact arrangements, recovery provisions, conflicts of interest, outsourcing and regulatory reporting responsibilities.

Analysis and Proposal

8. ESMA has reviewed the CESR guidance for APAs and considers that it is still valid and could be used as the basis for determining the organisational requirements and information to be provided by all types of DRS providers to the NCAs under MiFID II, taking into account that appropriate adjustments would need to be made to accommodate the differences between the three types of DRS providers. In this regard ESMA sets out below additional requirements relating to ARMs.
9. Article 59(4) of MiFID II requires NCAs to keep authorised DRS providers under review to ensure ongoing compliance with the authorisation requirements. Article 62, MiFID II states that NCAs shall withdraw the authorisation to DRS providers in four different circumstances: a) unused authorisation, b) authorisation obtained upon false or irregular means, c) no longer meeting the requirements and d) infringement of the provisions of the Directive or MiFIR. If an authorisation is withdrawn, this must be shown in the databases of DRS providers maintained by NCAs and by ESMA for a period of five years.
10. A DRS provider's core systems will constitute an important element in demonstrating compliance with the established requirements for authorisation, and an NCA will need to ensure that the DRS provider's systems continue to meet the requirements. ESMA is therefore proposing – in addition to the issues covered in the CESR guidance – to require notification of system changes: it may be useful for the future authorisation conditions to require an APA/CTP/ARM to provide regular and ad hoc notifications to its NCA regarding significant changes to core systems.

Q361: Do you agree that the guidance produced by CESR in 2010 is broadly appropriate for all three types of DRS providers?

Q362: Do you agree that there should also be a requirement for notification of significant system changes?

Q363: Are there any other general elements that should be considered in the NCAs' assessment of whether to authorise a DRS provider?

¹⁵⁰ Please refer to Annex 5.1.1 - Extract from CESR Technical Advice to the European Commission in the Context of the MiFID Review – Equity Markets (ref: CESR/10-802)

Annex 5.1.1. Extract from CESR Technical Advice to the European Commission in the Context of the MiFID Review – Equity Markets (ref: CESR/10-802)

ANNEX I – PROPOSED GUIDANCE FOR APPROVED PUBLICATION ARRANGEMENTS

Dissemination

APAs must publish the information required under Article 27 of the MiFID implementing regulation within the timeframe required under Article 28 of MiFID.

APAs must:

- facilitate the consolidation of the information with similar data from other sources, including making the information accessible by automatic electronic means in a machine-readable way;
- ensure the information is accompanied by instructions outlining how users can access the data;
- make the information available to the public on a non-discriminatory commercial basis at a reasonable cost; and
- provide transparency with respect to the prices charged to end-users of the data;

Security

APAs must ensure there is:

- certainty on a continuous basis as to which firms submit trade information by employing appropriate authentication mechanisms;
- no corruption of data in the input process at the APA; and
- no unauthorised access to trade information at the APA.

APAs must ensure there are controls over their facilities and the individuals providing the services to ensure trade information is monitored securely and confidentiality of the data received is retained, and to prevent the misuse of the information. At a minimum, the following controls must be in place at the APA:

- the working environment must be secure;
- the computer-based systems must incorporate:
 - access controls;
 - procedures for problem management and system changes; and
 - arrangements to monitor system performance, availability and integrity.
- the working environment must be free of unauthorised surveillance;
- individuals providing the APA service must be under a duty to keep confidential any trade information to which they have access; and
- if there is a breach of any security measure relating to the provision of a APA service, the clients involved and the APA's authorising competent authority must be notified immediately and, if requested, a detailed report of the breach must be provided and appropriate corrective steps taken.

Identification of incomplete or potentially erroneous information

APAs must have appropriate systems and controls in place to identify on receipt trade reports from investment firms that are incomplete or contain information that is likely to be erroneous. These systems and controls may include various automated price and volume alerts, taking into account:

- the sector and the segment in which the security is traded;
- liquidity levels including historical trading levels;
- appropriate price and volume benchmarks; and
- if needed, other parameters to be set individually according to the characteristics of the security.

Where an APA determines that a trade report it receives from an investment firm is incomplete or contains information that is likely to be erroneous, it must ensure it does not publish this information. It must alert the investment firm that the trade report is incomplete or contains information that is likely to be erroneous and has not been published.

An APA must review its systems periodically and adjust them when necessary.

Correction of trade information

An APA must have the ability to amend a trade report itself when a firm cannot do so for technical reasons in exceptional circumstances. The APA is not otherwise responsible for correcting information contained in trade reports. Where an APA determines a trade report is incomplete or contains information that is likely to be erroneous and therefore does not publish the trade, the investment firm must correct the trade report and publish a complete and accurate trade report as soon as the error is detected.

Monitoring

An APA must have the capability to monitor its own systems and controls to ensure with reasonable certainty that the trades it monitors have been successfully published.

Operational hours

An APA must be capable of monitoring trade reports throughout the normal trade publication hours of the investment firms submitting trade reports to it, irrespective of the time zones in which those investment firms operate. This must include providing for trades published under MiFID's deferred publication regime.

Resources and contact arrangements

An APA must have appropriate numbers of staff overseeing the APA service who are competent to perform their duties and meet the requirements for APAs.

An APA must have a nominated individual responsible on a day-to-day basis for the performance of the APA's functions and its compliance with these standards. An APA must provide its clients with contact details for this person.

An APA must provide a facility for market participants to query the accuracy of the trade publications it disseminates and must have procedures in place for market participants to raise complaints regarding the APA's services and activities. The facility must be operational throughout the normal trade publication hours of the investment firms submitting trade reports to the APA so that queries can be addressed promptly.

Recovery provisions

An APA must provide adequately for possible disruptions to its operations in order to enable the timely resumption of publication in the case of system failure. It must have arrangements to ensure IT systems are not prone to failure and must ensure business continuity if a system or systems failed. This must include system "fail-over" arrangements to minimise the risk of disruption to the APA's service.

An APA must regularly review these provisions and ensure they remain sufficient to ensure there is minimum disruption to the continuous operation of its service. An APA must inform its clients without delay if its operations are disrupted.

Conflicts of interest

APAs must have appropriate arrangements for managing conflicts of interest. In particular, appropriate control and governance structures must be in place to ensure that staff in the APA's surveillance function do not come under undue pressure or influence from the APA's commercial functions.

Outsourcing

Where an APA arranges for functions to be performed on its behalf by third parties, the APA must be satisfied that the person performing the function is fit, able and willing to perform the function. An appropriate contract must be in place to cover the outsourced functions, with accompanying service level agreements. In addition, the APA must satisfy itself that such a third party has recovery provisions in place akin to those outlined above.

Regulatory reporting responsibilities

Periodic report

The information that an APA must provide on a periodic basis to the competent authority of each investment firm using the facilities of the APA must include (but may not be limited to) the proportion of information to be made public received by the APA from the investment firm that:

- The APA did not publish because the information was incomplete;
- The APA did not publish because the information was likely to be erroneous;
- Were later cancelled by the investment firm;
- Were later amended by the investment firm; and
- Were not received by the APA within the time required under Article 29(5) of the MiFID Implementing Regulation or the delays allowed under Article 28 of the MiFID Implementing Regulation.
- Were flagged as being either incomplete or likely to be erroneous that were resubmitted and the resubmitted trade was then subsequently cancelled or amended

Each APA must provide to the competent authority of each investment firm:

- A measure of average time taken to resubmit corrected trades that the APA flagged to the investment firm as being either incomplete or likely to be erroneous; and
- a measure of the average time between a trade first being published and it later being either cancelled or amended

Ad hoc reports

Where an APA considers that an investment firm is consistently providing poor quality data, it must in the first instance inform the investment firm of its concerns. If the submission of poor quality data continues, the APA must report its concerns to the investment firm's competent authority.

5.2. Additional requirements for particular types of Data Reporting Services Providers

1. It is ESMA's view that, although the list of issues generally appears appropriate for CTPs and ARMs as well as APAs, some provisions would apply only to particular types of DRS provider. This will be not only due to the MiFID II empowerments, which although similar are not identical; but also because of the different natures of APAs, CTPs and ARMs. For example, organisational requirements relating to the dissemination and consolidation of trade information will be applicable to APAs and CTPs, but not to ARMs.

Q364: Do you agree with the identified differences regarding the regulatory treatment of ARMs.

Q365: What other significant differences will there have to be in the standards for APAs, CTPs and ARMs?

5.3. Technical arrangements promoting an efficient and consistent dissemination of information – Machine readability Article 64(6), MiFID II

Background/Mandate/Empowerment

Article 64(6), MiFID II

ESMA shall develop draft regulatory technical standards to determine:

“(...) technical arrangements promoting an efficient and consistent dissemination of information in a way ensuring for it to be easily accessible and utilisable for market participants as referred to in paragraphs 1 and 2 (...).”

1. In its guidelines for the publication and consolidation of MiFID market transparency data (CESR/07-043 Guideline #5), CESR considered that an arrangement fulfils the ‘machine-readable’ criteria where the data:
 - i. is in a physical form that is designed to be read by a computer;
 - ii. is in a location on a computer storage device where that location is known in advance by the party wishing to access the data; and
 - iii. is in a format that is known in advance by the party wishing to access the data.
2. In the same document CESR further considers that publication on a non-machine readable website would not meet the MiFID requirements.

Analysis

3. In the aforementioned guidelines, CESR has defined the ‘machine-readable’ criteria with reference to data *“in a physical form designed to be read by a computer”*. While the rationale behind this key definition is understandable, the term ‘physical form’ may be somewhat ambiguous and outdated. Hence, there is a risk that these terms be misconstrued. For the avoidance of doubt, the term ‘electronic form’ shall be preferred over the term ‘physical form’ and the definition shall be amended accordingly.
4. Traditional word processing documents or Portable Document Format (PDF) are electronic forms that could meet the requirements of CESR’s definition even though they may not always be easily interpreted by a computer. Even typewritten pages could theoretically be read by a computer provided it has an optical character recognition system. In order to prevent computers having to read such documents, data shall be required to be published in a form that includes enhanced structural elements (such as separate columns or tags like in html files) so it can be directly read by a computer system.
5. CESR’s guidelines provide that the format of data shall be known in advance, without any further details on the term ‘format’. For the avoidance of doubt, it could be useful to specify what details are covered by the term ‘format’. In particular, it could be specified that the ‘format’ shall include various elements such as the type of files (or messages), the rules to be used to name or identify them (e.g. in

cases where their name varies with the date or with an incremental key), and the name and data types of the fields (or tags) they contain. The way erroneous files and the replacing ones will be dealt with (e.g., whether the correct file will have the same name as and automatically replace the erroneous one) may be considered as falling out of the scope of the machine-readable criteria and shall therefore be treated separately. In any case, data reporting services shall put at the disposal of their users the relevant instructions outlining how users can access the information.

6. While CESR has recognised that data made available on a website may constitute a cheaper option to more robust alternatives (e.g. FTP servers), it also identified the risk that automated access be blocked (whether or not intentionally) by certain websites, hindering the consolidation process. Future technical standards shall therefore make it clear that data shall be stored in an architecture designed to enable automatic access.

Proposal

7. The 'machine-readable' criteria shall be met where the data:
 - i. is in an electronic form that is designed to be directly and automatically read by a computer; and
 - ii. is in a location on a computer storage device where that location is known in advance by the party wishing to access the data. Data may also be located in a website, in which case it shall remain accessible by electronic means through an automated process; and
 - iii. is in a format that is known in advance by the party wishing to access the data. Format includes in particular the type of files or messages, the rules to identify them, and the name and data type of the fields they contain. Instructions outlining how users can access the data shall be made easily and continuously available to all parties wishing to access the data.

Q366: Do you agree with the proposal to define machine-readability in this way? If not, what would you prefer?

5.4. Consolidated tape providers

Background/Mandate/Empowerment

Article 65, MiFID II

ESMA shall develop draft regulatory technical standards:

Article 65(6), MiFID II

“[...] to determine [...] technical arrangements promoting an efficient and consistent dissemination of information in a way ensuring for it to be easily accessible and utilisable for market participants [...], including identifying additional services the CTP could perform which increase the efficiency of the market.”

Article 65(8), MiFID II

“[...] Specifying:

- a. *the means by which the CTP may comply with the information obligations referred to in paragraphs 1 and 2 [of MiFID Article 65]; [...]*
- c. *the financial instruments data of which must be provided in the data stream and for non-equity instruments the trading venues and APAs which need to be included.”*

General Aspects

Analysis

1. Achieving a consolidated view of all available post-trade transparency information is one of the drivers of the MiFID review. To that end, the concept of a CTP has been developed to ensure that this specific service is provided. These entities will collect the information made public for equity, equity-like and non-equity financial instruments from APAs and trading venues, consolidate it into a continuous electronic data stream and make the information available to the public as close to real time as technically possible.
2. ESMA notes that the European Commission’s services have indicated that the consolidated tape for equities should encompass trade data with respect to all equity instruments traded on a trading venue, i.e. 100% of trading in equities.
3. Accordingly, the Commission specified that Article 65(8)(c) of MiFID II regarding “*the financial instruments data of which must be provided in the data stream*” as regards equities should be read as the data fields to be included in the data stream of the consolidated tape for equities and not the financial instruments themselves.

4. The empowerments under Articles 65(8)(b) and (d) of MiFID II¹⁵¹ will be dealt with by the definition of the fields, formats and arrangements for information to be published by APAs and trading venues, as we would expect CTPs to publish the information they receive¹⁵². Indeed, these standards are specifically designed so as to ensure consistency and to allow for consolidation. The definition of the fields, formats and arrangements for information is not the object of this section of the Discussion Paper¹⁵³. As a consequence we will address the outstanding questions.

Proposal

5. CESR, in its 2010 advice¹⁵⁴, when it considered a consolidated post-trade equities tape, recommended that the tape should be offered to users ‘on a share-by-share’ basis. It would be possible to specify under Article 67(8)(a) of MiFID II that the CTP should provide the tape broken down into individual instruments, although this might increase the costs for the CTP and end up being expensive for the users. (The general issue of disaggregation of published data is covered below¹⁵⁵.) In addition, CESR’s 2010 advice suggested that users of data should be free to purchase transparency information without having to buy any value-added products.

Q367: Should the tapes be offered to users on an instrument-by-instrument basis, or as a single comprehensive tape, or at some intermediate level of disaggregation? Do you think that transparency information should be available without the need for value-added products to be purchased alongside?

Q368: Are there other factors or considerations regarding data publication by the CTP that are not covered in the standards for data publication by APAs and trading venues and that should be taken into account by ESMA?

Additional services the CTP could perform which increase the efficiency of the market – Article 65(6)

Background/Mandate/Empowerment

Article 65(6), MiFID II

ESMA shall develop draft regulatory technical standards:

“(…) identifying additional services the CTP could perform which increase the efficiency of the market.”

Proposal

¹⁵¹ Article 65(8)(b), of MiFID II refers to “the content of the information published under paragraphs 1 and 2” and Article 65(8) (d) of MiFID II refers to “other means to ensure that the data published by different CCPs is consistent and allows for comprehensive mapping and cross referencing against similar data from other sources and is capable of being aggregated at union level”.

¹⁵² Please refer to section 3, above, on transparency and section 8, below, on market data reporting

¹⁵³ Please refer to section 3, above, on transparency and section 8, below, on market data reporting

¹⁵⁴ CESR Technical Advice to the European Commission in the Context of the MiFID Review- Equity Markets (Ref. CESR/10-802)

¹⁵⁵ Please refer to section 5.5, below.

6. ESMA considers that the CTP could provide any other services as they complement its main activity, to the extent that they do not conflict with the quality and independence of the provision of its main activity, such as:
- i. provision of pre-trade transparency data;
 - ii. provision of historical data;
 - iii. provision of reference data;
 - iv. provision of research; processing, distribution and marketing of data and statistics on financial instruments and market-related data; and
 - v. elaboration, management, maintenance and marketing of software, hardware and networks in relation to the transmission of data and information.

Q369: Do you agree that CTPs should be able to provide the services listed above? Are there any others that you think should be specified?

5.5. Data disaggregation

Background/Mandate/Empowerment

1. MiFIR requires venues to publish pre- and post-trade transparency data, and Article 12 of MiFIR obliges them to offer pre- and post-trade data separately. Article 12 (2) requires ESMA to specify the offering of this pre- and post-trade transparency data, including the level of disaggregation of the data, through RTS. This Discussion Paper explains ESMA's views on data disaggregation.

Article 12(2), MiFIR

“ESMA shall develop draft regulatory technical standards specifying the offering of pre- and post-trade transparency data, including the level of disaggregation of the data to be made available to the public as referred to in Paragraph 1.”

Analysis

2. The purpose of requiring further unbundling is to ensure that to the extent possible, each customer for data is able to pay for only the data they want, rather than being forced to pay for extra data in which they have no interest.
3. Any mandatory disaggregation by a criterion that venues do not or cannot already use may impose some cost upon the venue, which may include a potentially significant one-off cost in changing IT systems to produce different feeds, and an ongoing requirement to manage a more complex range of offerings. Where there are customers keen to consume unbundled data, these costs are likely to be justified. If we were to mandate more extensive disaggregation than customers were interested in, the benefits would not justify these costs.
4. If venues start to sell packages of information providing customers with easy access to the most popular instruments, there may be a risk that information on less liquid instruments could become relatively more difficult or expensive to obtain. But we would not expect venues to change their offerings in a way that any customer would end up paying more overall.

Proposal

5. Possible criteria for unbundling of data according to the nature of the instrument or the trading phase include:
 - i. asset class;
 - ii. country of issue (where applicable);
 - iii. currency;
 - iv. industry sector of issuer, based e.g. on the UN International Standard Industrial Classification (ISIC) or the EU Statistical Classification of Economic Activities in the European Community (NACE) (where applicable);
 - v. all members of a major index (for equities); and

- vi. data about auctions as opposed to continuous trading.
6. The ultimate level of disaggregation by the nature of the instrument would be to specify that customers should be able to buy just the data about any individual instrument. ESMA is not proposing such a rule, as forcing venues to be able to provide this would impose costs that may not be justified by the benefits.

Q370: Do you agree that venues should not be required to disaggregate by individual instrument?

Mandatory disaggregation

7. There are particular risks in mandating a one-size-fits-all disaggregation scheme. For a venue whose offering was mainly in domestic equities, there might be customer interest in separating by industry sector, but possibly little or no interest in separating out instruments denominated in foreign currencies, of which there may be very few. On the other hand, a venue offering an international range of government and commercial bonds might find customer interest in separation by country of issue or currency.
8. ESMA believes that in general venues where instruments of more than one asset class are traded will have customers who want to know about some asset classes but not others. It seems likely therefore that the cost to the venue in separating out data by asset class is likely to be justified by the benefit, and that it would therefore be worth mandating disaggregation by asset class. For the other criteria we believe that there may not be consistent ways in which customers would like data separated out that hold across all venues.

Proposal

9. For this purpose, we propose the list of asset classes should be:
 - i. equities (including shares, depositary receipts, exchange-traded funds, certificates and other similar financial instruments)¹⁵⁶;
 - ii. fixed income;
 - iii. emission allowances;
 - iv. equity derivatives;
 - v. interest rate derivatives (including fixed income, e.g. bond options);
 - vi. credit derivatives;
 - vii. foreign exchange derivatives; and
 - viii. commodity derivatives.

¹⁵⁶ As in the scope of Article 3 of MiFIR

Q371: Do you agree that venues should be obliged to disaggregate their pre-trade and post-trade data by asset class?

Q372: Do you believe the list of asset classes proposed in the previous paragraph is appropriate for this purpose? If not, what would you propose?

Comply-or-explain disaggregation

10. ESMA believes that for the other criteria listed above, an individual venue should be required to disaggregate its data if it will meet a customer need. They should therefore have the option of not disaggregating by a particular criterion if they can demonstrate that there would be insufficient demand for such a disaggregated feed from existing or potential customers. As above, the criteria would be: country of issue, currency, industry sector of issuer, all members of a major index, and data about auctions as opposed to continuous trading.

Q373: Do you agree that venues should be under an obligation to disaggregate according to the listed criteria unless they can demonstrate that there is insufficient customer interest?

Q374: Are there any other criteria according to which it would be useful for venues to disaggregate their data, and if so do you think there should be a mandatory or comply-or-explain requirement for them to do so?

Q375: What impact do you think greater disaggregation will have in practice for overall costs faced by customers?

5.6. Identification of the investment firm responsible for making public the volume and price transparency of a transaction (Articles 20(3) (c) and 21(5)(c), MiFIR)

Background/Mandate/Empowerment

1. Investment firms and systematic internalizers trading OTC need to make public the price and volume of the transactions with respect to instruments traded on a venue –Articles 20(1) and 21(1) of MiFIR. Mentioned publication occurs through an APA.
2. When a transaction involves two investment firms, it is necessary to determine which of the investment firm should report such a transaction and ESMA is to specify which of the investment firms is responsible for ensuring publication.

Articles 20(3)(c) and 21(5)(c), MiFIR:

ESMA shall develop draft regulatory technical standards to specify the following:

“(c) the party to a transaction that has to make the transaction public in accordance with Paragraph 1 if both parties to the transaction are investment firms;”

3. Currently Article 27(4) of the MiFID I Implementing Regulation states that:

“Where the transaction is executed outside the rules of a regulated market or an MTF, one of the following investment firms shall, by agreement between the parties, arrange to make the information public:

- (a) the investment firm that sells the share concerned;*
- (b) the investment firm that acts on behalf of or arranges the transaction for the seller;*
- (c) the investment firm that acts on behalf of or arranges the transaction for the buyer;*
- (d) the investment firm that buys the share are concerned.*

In the absence of such an agreement, the information shall be made public by the investment firm determined by proceeding sequentially from point (a) to point (d) until the first point that applies to the case in question.

The parties shall take all reasonable steps to ensure that the transaction is made public as a single transaction. For those purposes two matching trades entered at the same time and price with a single party interposed shall be considered to be a single transaction.”

Analysis and Proposal

4. In principle, ESMA considers that it would be possible to follow the approach described by Article 27(4) of the MiFID I Implementing Regulation.
5. However, ESMA is aware that currently the publication of OTC trades according to Article 27(4) of the MiFID I Implementing Regulation faces some problems as in a significant number of cases both



parties publish the trade, unsure of whether their counterparty will do so. This originates a duplication of trades that is to be avoided.

6. ESMA would like to get the views of market participants.

Q376: Please describe your views about how to improve the current trade reporting system under Article 27(4) of MiFID Implementing Regulation.

5.7. Access to CCPs and trading venues (Articles 35-36, MiFIR)

Introduction to the access provisions

1. Articles 35 and 36 of MiFIR provide for trading venues to have access to CCPs, and vice versa, subject to certain conditions. This extends to other financial instruments the rights of access created by Articles 7 and 8 of EMIR in relation to OTC derivatives.
2. Articles 35 and 36 provide for ESMA to develop RTS in relation to various issues covered in the following sections of this paper. As both trading venues and CCPs are regulated under Union law, that fact has to be taken into account when drafting implementing measures under said MiFIR articles.
3. Therefore, this section of the paper takes the assumption that both entities are regulated and supervised (e.g. under EMIR, MAD/MAR and MiFID/MiFIR or, if not EU entities, under legislation recognised as equivalent by a decision prior to an access request being made –Article 25 of EMIR for CCPs, and Article 38 of MiFIR for trading venues) and does not question the proper enforcement of such regulations against the relevant entities.
4. Following the granting of access, whether by a CCP or by a trading venue, there may be a trading venue whose contracts can be cleared on more than one CCP. This situation can be handled in various ways, including for the CCPs to agree interoperability, which is an arrangement between two or more CCPs that involves a cross-system execution of transactions as defined by Article 2(12) of EMIR.
5. At present there are ESMA guidelines on interoperability made under EMIR Title IV, which relate only to transferable securities and money market instruments. There will be a review of the interoperability regime under Article 85(3)(e) of EMIR, as part of which ESMA is due to send a report to the Commission by 30 September 2014. It is possible that this review could lead to an extension of the scope of the interoperability regime.
6. Article 37 of MiFIR (object of the next section of the present paper) supports Articles 35 and 36 of MiFIR by giving a trading venue or CCP a right of access to benchmarks so that it can trade or clear relevant financial instruments.

Grounds for denying access

Background/Mandate/Empowerment

Article 35(6), MiFIR

ESMA shall develop draft regulatory technical standards specifying:

“the specific conditions under which an access request may be denied by a CCP including:

the anticipated volume of transactions;

the number and type of users;

arrangements for managing operational risk; and

complexity or other factors creating significant undue risks.”

Article 36(6)(a), MiFIR

ESMA shall develop draft regulatory technical standards specifying:

“the specific conditions under which an access request may be denied by a trading venue, including:

- i. conditions based on the anticipated volume of transactions,*
- ii. the number of users,*
- iii. arrangements for managing operational risk and*
- iv. complexity or other factors creating significant undue risks”*

Analysis and proposal

7. Although the legal text of the empowerments above is very similar in both Articles 35 and 36 of MiFIR, in practice they may impact CCPs and trading venues differently.
8. We have therefore separated the analysis of the conditions, under which an access request may be denied by a CCP or a trading venue.

Conditions under which an access request may be denied by a CCP to a trading venue – Article 35(6)(a)

9. ESMA preliminarily considers that access should be given whenever it does not give rise to risks that cannot be effectively managed or adequately mitigated. The conditions for denying access and the conditions under which access is granted should be aimed at meeting these objectives. With that in mind, differences in asset classes may be relevant and need, in some circumstances, to be taken into account. For example managing risks in relation to derivatives is in most cases much more complex and challenging than in relation to equities. This is a general point which is applicable to the various issues discussed later in this paper and which may lead to different results depending on the asset class. In responding to the various questions on access, please differentiate where necessary or appropriate according to asset class.
10. When a legal person established in the Union intends to provide clearing services as a CCP or where an existing CCP intends to extend their services and activities to ones not covered by their initial authorisation they are required to submit a request for authorisation or for an extension to their regulatory licence to their NCA. Such authorisations or extensions require a review of compliance with EMIR. This review will include the assessment of the CCP’s risk management, scalability and participation requirements.
11. Therefore, ESMA preliminarily considers that the authorisation or extension of authorisation granted by the NCA of the CCP will confirm that risks are effectively managed or adequately mitigated.

Anticipated volume of transactions

12. Article 35 of MiFIR (CCPs may be allowed to deny access on the grounds of the anticipated volume of transactions) recognises that by providing access to a trading venue, the volume of transactions cleared by a given CCP may substantially increase. It is therefore important for CCPs to consider their systems’ operational reliability and scalable capacity.

13. Pursuant to Article 26(9) EMIR, Article 9(1) of the Commission Delegated Regulation (EU) No 153/2013, of 19 December 2012 specifies that:

[...]. The systems shall be designed to deal with the CCP's operational needs and the risks the CCP faces, **be resilient**, including in stressed market conditions, and **be scalable**, if necessary, to process additional information. The CCP shall provide for **procedures and capacity planning** as well as for **sufficient redundant capacity** (...)

14. EMIR requires CCPs to have systems designed to deal with their operational needs and to be scalable. Additionally under EMIR's requirements a CCP's systems need not only to possess redundant capacity (i.e. effectively installed capacity to deal with the foreseeable volume of transactions to be cleared), but a CCP should also have procedures and capacity planning in place (the ability to increase its capacity in the future). These are elements that will be reviewed by NCAs as part of a CCP's authorisation and supervision in line with EMIR.
15. It is important to highlight that the EMIR obligations mentioned above are not changed by MiFIR.
16. Consequently, Article 35 of MiFIR, when referencing anticipated volume of transactions as possible grounds for a CCP to deny access, may envisage a situation in which the expected growth in volume arising from granting access is so substantial that it exceeds the capacity planning of the CCP (i.e. the design of the CCP's systems (hardware and software) will not be able to cope with the anticipated volume of transactions).

Q377: Do you agree that exceeding the planned capacity of the CCP is grounds to deny access?

Q378: How would a CCP assess that the anticipated volume of transactions would exceed its capacity planning?

Q379: Are there other risks related to the anticipated volume of transactions that should be considered? If so, how would such risks arise from the provision of access?

Number and type of users

17. Article 35 of MiFIR also considers the number of users as possible grounds for a CCP to deny access. By providing access to a trading venue, the number of users connected to the CCP may substantially increase. The considerations mentioned above in relation to scalability and capacity planning would apply here also.

Q380: Do you agree that exceeding the planned capacity of the CCP is grounds to deny access?

Q381: How would a CCP assess that the number of users expected to access its systems would exceed its capacity planning?

Q382: Are there other risks related to number of users that should be considered? If so, how would such risks arise from the provision of access?

18. Additionally Article 35 of MiFIR considers the types of users as possible grounds for a CCP to deny access. It is important to consider that the users of the trading venue will need to find a way to access the CCP's services to benefit from the access arrangement. This can be done either by applying to be-

come a clearing member of the CCP (direct access) or by becoming a client of a clearing member or of a client.

19. For direct access CCPs must comply with Article 37 of EMIR, which allows for fair and open access to the extent that it does not expose the CCP to additional risks. Article 37 of EMIR also requires that CCP rules allow for relevant concentrations of risks relating to the provision of services to clients to be identified, monitored and managed.
20. EMIR (Article 4(3) and Regulation 149/2013 of 19 December 2012 supplementing EMIR - Article 2 and 3) also applies relevant requirements for indirect client clearing (clearing of clients of clients of clearing members), but only in relation to OTC derivatives under a clearing obligation. Under Article 30 of MiFIR, ESMA has to develop draft RTS specifying the types of indirect clearing service arrangements that will be permissible with regard to exchange-traded derivatives, ensuring consistency with provisions established for OTC derivatives.
21. Given the above ESMA has yet to identify additional risks from the types of users accessing a CCP that could arise from an access arrangement, and notes that the level one text makes reference to risks arising from that source.

Q383: In what way could granting access to a trading venue expose a CCP to risks associated with a change in the type of users accessing the CCP? Are there any additional risks that could be relevant in this situation?

Arrangements for managing operational risk

22. Article 35 of MiFIR recognises that by providing access to a trading venue, a CCP's operational risk may increase. Under the EMIR framework CCPs are required to manage their operational risk (Article 16 and Regulation 153/2013 of 19 December 2012 supplementing EMIR - Article 3).
23. The operational risk obligation in EMIR is not changed by MiFIR. Consequently Article 35 of MiFIR, when referencing operational risk as possible grounds for a CCP to deny access, may envisage a situation in which the expected growth in such a risk is so substantial that it exceeds the operational risk management design of the CCP. Where a CCP believed its operational risk management design would not be able to cope with the anticipated operational risk arising from access, it would have to provide full reasons in accordance with Article 35(3) of MiFIR.

Q384: How would a CCP establish that the anticipated operational risk would exceed its operational risk management design?

Q385: Are there other risks related to arrangements for managing operational risk that should be considered? If so, how would such risks arise from the provision of access?

Complexity or other factors creating significant undue risks.

24. Risk management is an important function for CCPs. ESMA therefore believes that CCPs may deny access on grounds related to complexity or other factors creating significant undue risks, when access would prevent the CCP from being able to comply with relevant requirements it is subject to. Article 14(3) EMIR specifies that the authorisation of a CCP should specify the services or activities for which the CCP is authorised to provide or perform, including the classes of financial instruments covered by such authorisation. Additionally, although there are a number of prudential requirements CCPs will

have to ensure they comply with on an on-going basis¹⁵⁷, CCP risk-management frameworks will vary depending on the services or activities, including the classes of financial instruments, for which the CCP is authorised to provide or perform. Article 35(2) of MiFIR states that a trading venue requesting access to a CCP should specify to which types of financial instruments access is requested. If a trading venue requests access to a CCP, but it deals in financial instruments not covered by the CCP's authorisation under EMIR, the CCP should either deny access or obtain the necessary authorisation.

25. Separately CCPs may incur significant costs to facilitate access. Although Article 35 of MiFIR does not make any explicit reference to costs, ESMA's preliminary view is that where such costs would threaten the viability of the CCP as a standalone entity that would be considered a significant undue risk and can be used as grounds to deny access. ESMA requests the views of market participants about which other costs would justify denying access.
26. Lastly in cross-border, as well as some national contexts, different bodies of law can apply to a single transaction, including to the parties to that transaction. CCPs tend to be global entities and so each CCP will have assessed its ability to enforce rules, e.g. regarding its ability to manage a default, including the validity of netting across different positions.
27. On that basis, ESMA's preliminary view is that CCPs should assess whether granting access to a trading venue located in another jurisdiction will adversely affect their ability to enforce rules.
28. When both parties are located in the European Economic Area (EEA), there are, however, considerable mitigating factors. In fact, the legal harmonisation within the EEA is significant, and the development and adoption of the European single rule book equally substantial¹⁵⁸. Nevertheless, there is still a need to conduct a full assessment exercise of potential legal risks in the remit of a decision on access, including the compatibility of different legal regimes. In summary, in ESMA's preliminary view, the legal risk stemming from choice of law and conflict of laws within the EEA will rarely justify a decision to refuse access.

¹⁵⁷ For example, and from an IT perspective, Article 26.6 EMIR requires CCPs to maintain "information technology systems adequate to deal with the complexity, variety and type of services and activities performed so as to ensure high standards of security and the integrity and confidentiality of the information maintained".

¹⁵⁸ It should be noted that it is the regulatory intention of the European regulatory framework to ensure to the furthest extent possible legal certainty. For example, Recital (97) of EMIR cross refers to the settlement finality directive: *In view of the rules regarding interoperable systems, it was deemed appropriate [...] to protect the rights of a system operator that provides collateral security to a receiving system operator in the event of insolvency proceedings against that receiving system operator.*

Q386: Given there will be costs to meeting an access request, what regard should be given to those costs that would create significant undue risk?

Q387: To what extent could a lack of harmonization in certain areas of law constitute a relevant risk in the context of granting or denying access?

Q388: Do you agree with the risks identified above in relation to complexity and other factors creating significant undue risks?

Q389: Q: Are there other risks related to complexity and other factors creating significant undue risks that should be considered? If so, how would such risks arise from the provision of access?

Conditions under which an access request may be denied by a trading venue to a CCP – Article 36(6)(a) of MiFIR

- i. Conditions based on the anticipated volume of transactions
- ii. The number of users
- iii. Arrangements for managing operational risk

29. As above, Article 36 of MiFIR says that a trading venue may be allowed to deny access to a CCP on the grounds of the anticipated volume of transactions, the number of users and arrangements for managing operational risk.

30. ESMA considered how these factors could constitute grounds for denying access, but is unclear how to take account of them, because in terms of providing access they are less relevant for trading venues than they are for CCPs. ESMA has not yet identified how granting access to a new CCP would impact a trading venue, in such a way that it would have to deny access on reasonable risk grounds, i.e. it is not clear how granting access to a CCP would cause users of the trading venue to change their trading behaviour to the extent that it would put the trading venue at risk. Additionally MiFID and MiFIR impose relevant operational requirements on trading venues. ESMA would like to get the views of market participants about this.

Q390: Do you agree with the analysis above and the conclusion specified in the previous paragraph?

Q391: To what extent would a trading venue granting access give rise to material risks because of anticipated volume of transactions and the number of users? Can you evidence that access will materially change volumes and the number of users?

Q392: To what extent would a trading venue granting access give rise to material risks because of arrangements for managing operational risk?

- iv. Complexity or other factors creating significant undue risks

31. As above, trading venues may incur significant costs to facilitate access, and ESMA believes that where such costs would threaten the viability of the trading venue, as a standalone entity, that would be considered a significant undue risk and can be used as grounds to deny access.

32. One of the key points to consider as regards complexity is the CCP's trade acceptance model: it can be considered that the ability of CCPs using the novation model to reject certain trades from clearing may create uncertainty and impact market confidence, particularly in sensitive market conditions. It can be also argued that risks exist with both the novation and open offer models, but that such risks are unrelated to the provision of access. ESMA would like to invite market participants' views on whether a CCP's trade acceptance model could create significant undue risks to a trading venue where access is provided.
33. Lastly in cross-border, as well as some national contexts, different bodies of law can apply to a single transaction, including to the parties to that transaction. ESMA believes that potential legal risks, including the compatibility of different legal regimes, are less relevant for trading venues than they are for CCPs and has not been able so far to identify whether access could increase such risks.

Q393: Given there will be costs to meeting an access request, what regard should be given to those costs that would create significant undue risk?

Q394: Do you believe a CCP's model regarding the acceptance of trades may create risks to a trading venue if access is provided? If so, please explain in which cases and how.

Q395: Could granting access create unmanageable risks for trading venues due to conflicts of law arising from the involvement of different legal regimes?

Q396: Are there other risks related to complexity and other factors creating significant undue risks that should be considered? If so, how would such risks arise from the provision of access?

Conditions under which access is granted

Background/Mandate/Empowerment

Article 35(6)(b), MiFIR

ESMA shall develop draft regulatory technical standards to specify:

“(b) the conditions under which access must be permitted by a CCP, including confidentiality of information provided regarding financial instruments during the development phase, the non-discriminatory and transparent basis as regards clearing fees, collateral requirements and operational requirements regarding margining.”

Article 36(6)(b), MiFIR

ESMA shall develop draft regulatory technical standards to specify:

“the conditions under which access shall be granted, including confidentiality of information provided regarding financial instruments during the development phase and the non-discriminatory and transparent basis as regards fees related to access.”

Analysis and proposal

34. Under Articles 35(6)(b) and 36(6)(b) of MiFIR, ESMA is to develop draft RTS on conditions under which access is granted. While some of these are specific to either CCPs or trading venues, others are common to both.

Common conditions for CCP and TVs –Articles 35(6)(b) and 36(6)(b) of MiFIR

35. In ESMA's preliminary view, where an entity has access to another entity under Articles 35 and 36, MiFIR the following conditions should be complied with:
- i. The information provided in the request for access should be kept up-to-date throughout the duration of the access arrangement, and the relevant entity informed about any material changes;
 - ii. The information provided should only be used for the specific purposes for which it was conveyed and may only be acted upon for the specific purposes agreed by the entities, all other usage or sharing being strictly forbidden. The information covered by this confidentiality would be all non-public and commercially sensitive information including any information provided during the development phase of financial instruments.
 - iii. There should be agreed procedures for:
 - a. communication between the relevant entities that ensure its timely, reliable and secure nature;
 - b. consulting where any change to either entity's operations is likely to have a material impact on the access arrangement or on the risks to which the other entity is exposed;
 - c. notifying the relevant party within a reasonable notice period before the change is implemented, where the impact of a change is unlikely to be significant;
 - d. resolving disputes;
 - e. termination of the access arrangements. In particular,
 - the procedure for the termination of the access arrangement by any of the entities should be clear and transparent and should cater for termination in an orderly manner that does not unduly expose other entities to additional risks;
 - termination should not be triggered by minor breaches of the contract, and the relevant party should be given a reasonable amount of time to remedy any breach that does not give rise to immediate termination; and
 - termination should be allowed if risks increase in a way that would have justified denial of access in the first instance.
 - f. identifying, monitoring and managing the potential risks arising from the access arrangement; and

- g. ensuring that the access arrangement does not cause the CCP to reduce its risk management standards, especially when there are two or more CCP's involved in the access arrangement.
- iv. The access arrangement should:
- a. Be clearly defined, transparent, valid and enforceable in all relevant jurisdictions and the entities should put in place a framework to assess these factors, so that the entities have a high degree of confidence regarding the enforceability of their rules and regarding the viability of access procedures;
 - b. Where two or more CCPs are involved in an access arrangement, clearly specify how the CCPs interact, e.g., interoperability, preferred clearer model, etc...;
 - c. Be monitored according to an agreed procedure, so that its functioning is ensured;
 - d. Contain clear rules and procedures concerning the moment of entry of transfer orders into relevant systems and the moment of irrevocability;
 - e. Not contain any provision that restricts or creates obstacles for the establishment or future extension of the access arrangement to other entities, other than on duly justified risk grounds; and
 - f. Not impact on the compliance by the entities participating in the arrangement with the requirements to which they are subject under relevant regulations.
36. These requirements should be met by each entity on a standalone basis.

Q397: Do you agree with the conditions set out above? If you do not, please state why not.

Q398: Are there any other conditions CCPs and trading venues should include in their terms for agreeing access?

Transparent and non-discriminatory fees

37. ESMA has to explain what transparent and non-discriminatory means in relation to fees charged by trading venues and CCPs in respect of Articles 35 and 36 of MiFIR. ESMA envisages two types of fees to be relevant:
- i. Fees charged by a CCP to its clearing members for clearing transactions that take place on a trading venue to which it has granted access (under Article 35(6)(b)), and
 - ii. Fees charged by a trading venue that has granted access to a CCP for its data feed (under Article 36(6)(b)).
38. ESMA's preliminary view is that transparent in this context means that there should be no difficulties in accessing or retrieving information on fee schedules with the result that fees are easily accessible, adequately identified per service provided and sufficiently granular to ensure that the fees charged are predictable.

39. ESMA's preliminary view is that non-discrimination in this context implies that clearing fees charged by a CCP should be set on objective criteria for all clearing members regardless of where the transaction takes place. This is consistent with Articles 37 and 38 of EMIR. In particular, it should be clear that as long as pre-determined and non-discriminatory objective requirements are met, all clearing members should be subject to the same schedule of fees and rebates, not just a sub-set of them.
40. Trading participants that do not have a direct contractual relationship with the CCP, i.e. are not clearing members of the CCP, will not pay clearing fee directly to the CCP.
41. Conversely, non-discrimination of fees related to access implies that the requesting CCP meeting the relevant requirements set out by the trading venue should be subject to the same fees and rebates as other CCPs accessing the same trading venue for the same or similar instruments.

Q399: Are there any other fees that are relevant in the context of Articles 35 and 36 of MiFIR that should be analysed?

Q400: Are there other considerations that need to be made in respect of transparent and non-discriminatory fees?

Transparent and non-discriminatory collateral requirements and operational requirements regarding margining and netting (35(6)(b) of MiFIR)

42. ESMA has been given the mandate to explain what non-discriminatory treatment means when a CCP grants access to a trading venue with regards to three aspects:
 - i. collateral requirements of economically equivalent contracts,
 - ii. netting process of economically equivalent contracts,
 - iii. cross-margining of correlated contracts.
43. On the first aspect on collateral requirements of economically equivalent contracts, ESMA's preliminary view is that non-discriminatory treatment of contracts traded on that trading venue would mean that the CCP should apply to the contracts executed on the prospective trading venue the same margin methodologies as applied to economically equivalent contracts already cleared by the CCP.
44. This approach would leverage the framework of Article 41 of EMIR on the requirements for risk models of CCPs. The CCP policy would refer to the characteristics of the contracts and not to the platforms where the contracts were traded. As a result, economically equivalent contracts would present the same market risk as the economically equivalent contracts the CCP already clears, which would thus subject these contracts to the same margining requirements.

Q401: Do you consider that the proposed approach adequately reflects the need to ensure that the CCP does not apply discriminatory collateral requirements? What alternative approach would you consider?

45. On the second aspect around the netting process of the CCP for economically equivalent contracts, ESMA needs to define the conditions for non-discriminatory treatment where the inclusion of such contracts in the close-out and the other netting procedures of a CCP based on the applicable insolvency law would not endanger the smooth and orderly functioning, the validity and/or enforceability of such procedures.

46. ESMA is of the view that the reference to insolvency law in the provision 28(1)(i) is the insolvency law which is applicable to the CCP. When considering a new trading venue, a CCP should ensure it would not become exposed to conflict of laws that would endanger the smooth and orderly functioning, the validity or enforceability of its netting procedures. In particular, the CCP should consider whether the inclusion of the contracts concluded in the new trading venue in its netting process would not cause the CCP to be exposed to risks arising from conflicts of laws between the laws to which the contracts in the same netting set concluded in different trading venues are subject to. The CCP should also consider whether this potential conflict of laws would negatively impact the validity and/or enforceability of its day-to-day operations and default procedures, in particular how the CCP would need to manage the liquidation of those contracts. Where a CCP is exposed to risks arising from conflicts of law that it cannot manage, the CCP should have the possibility to treat differently contracts executed in such a trading venue.
47. Building on the above, ESMA thus considers that when the contracts are economically equivalent and can be legally netted with the contracts already cleared by the CCP, in compliance with the insolvency law applicable to the CCP, that these economically equivalent contracts from the prospective trading venue should be netted with the contracts already cleared and not discriminated towards the contracts already cleared by the CCP and executed in other venues.
48. However, when contracts are economically equivalent but cause the CCP to be exposed to risks arising from conflicts of law it cannot effectively manage in compliance with the applicable insolvency law, the CCP could have reasons not to net contracts from different trading venues and treat them differently on the basis of the different risks to which the CCP is exposed to.

Q402: Do you see other conditions under which netting of economically equivalent contracts would be enforceable and ensure non-discriminatory treatment for the prospective trading venue in line with all the conditions of Article 35(1)(a)?

49. Finally, on the question of cross margining, as provision 35(1)(a) already ensures non-discriminatory treatment in terms of netting and margining of economically equivalent contracts traded on a different trading venue, the provision in Article 35(b)(ii) of MIFIR addresses the question of offsets and reductions that are offered to the contracts traded on the prospective trading venue when margined together with correlated contracts already cleared by the CCP.
50. ESMA's preliminary view is that cross margining between correlated contracts traded on different platforms or portfolio margining of correlated contracts should follow the same principles. In order to ensure non-discriminatory treatment for cross margining with correlated contracts, the risk policy implemented by the CCP to offer portfolio margining (in compliance with Article 41 of EMIR and Article 27 of the RTS on CCP requirements) should apply to these contracts independently from the trading venue where they were traded on.
51. The same conditions and requirements for a CCP to offer portfolio margining under Article 27 of Regulation (EU) No 153/2013, in particular the significant and reliable correlation or an equivalent statistical parameter of dependence for the contracts, would apply irrespectively of the trading venue where the contract is executed. Non-discriminatory treatment means these contracts traded on a different trading venue would benefit from the same offsets or reductions as the contracts with significant and reliable correlation, or an equivalent statistical parameter of dependence, already cleared by the CCP.

Q403: The approach above relies on the CCP's model compliance with Article 27 of Regulation (EU) No 153/2013, do you see any other circumstances for a CCP to cross margin correlated contracts? Do you see other conditions under which cross margining of correlated contracts would be enforceable and ensure non-discriminatory treatment for the prospective trading venue?

Conditions under which granting access will threaten the smooth and orderly functioning of the markets or would otherwise adversely affect systemic risk

Background/Mandate/Empowerment

Article 35(6)(c) and 36(6)(c), MiFIR

ESMA shall develop draft regulatory technical standards to further specify:

“the conditions under which granting access would threaten the smooth and orderly functioning of the markets or would adversely affect systemic risk.”

52. Articles 35(6)(c) and 36(6)(c) of MiFIR, require ESMA to further specify the conditions under which granting access will threaten the smooth and orderly functioning of the markets or would adversely affect systemic risk.

Analysis and proposals

53. The relevant competent authorities will assess whether granting access is likely to threaten the smooth and orderly functioning of the markets or adversely affect systemic risk. ESMA notes that MiFID II requires NCAs to make this assessment before any access arrangement has been agreed, and it will base its assessment on the conditions at the time and how it expects them to evolve. If things develop in an unexpected way and a NCA at a later stage assesses that increased risks might threaten the smooth and orderly functioning of the markets or adversely affect systemic risk, it may take necessary action, which may result in requiring termination of the access arrangement.

54. ESMA believes the smooth and orderly functioning of markets may be endangered and there may be systemic consequences where CCPs and trading venues are unlikely or unable to meet their obligations and to provide their services efficiently and to fulfil their economic function, which could, in ESMA's preliminary view, occur in two circumstances:

- i. Where national competent authorities, due to the exercise of their supervisory functions are in possession of knowledge that a trading venue or a CCP are not meeting their relevant legal obligations (e.g. stemming from EMIR, MiFID, MiFIR or, where applicable, relevant third country law) or is unlikely to meet them as a consequence of granting access, and there are no remedial actions that would allow the trading venue or CCP to meet its legal obligations within a sufficient timeframe; or
- ii. Liquidity fragmentation, which is defined by Article 2(1)(45) of MiFIR as “a situation in which:
 - a. *participants in a trading venue are unable to conclude a transaction with one or more other participants in that venue because of the absence of clearing arrangements to which all participants have access;*

- b. *a clearing member or its clients would be forced to hold their positions in a financial instrument in more than one CCP which would limit the potential for the netting of financial exposures.”*

55. ESMA’s preliminary view is that where a NCA believes one of the two conditions mentioned above will threaten the smooth and orderly functioning of the market or adversely affect systemic risk, it may deny access.

Q404: Do you agree with ESMA that the two considerations that could justify a national competent authority in denying access are (a) knowledge it has about the trading venue or CCP being at risk of not meeting its legal obligations, and (b) liquidity fragmentation? If not, please explain why.

Q405: How could the above mentioned considerations be further specified?

Q406: Are there other conditions that may threaten the smooth and orderly functioning of the markets or adversely affect systemic risk? If so, how would such risks arise from the provision of access?

Further specifications for the calculation of notional amount in the context of MiFIR Article 36

Background/Mandate/Empowerment

56. Under Article 36(5) of MiFIR, where the annual notional amount of all exchange traded derivatives concluded under a trading venue’s rules in the calendar year preceding entry into application of the Regulation falls below the relevant threshold, it may, before entry into application of the Regulation, notify ESMA and its competent authority that it does not wish to be bound by Article 36 for exchange traded derivatives for a 30 month period. The notification will also prevent the trading venue from benefitting from access rights under Article 36 for the same period.
57. Article 36(5) of MiFIR states that where a trading venue is part of a group, the annual notional amount should be calculated by adding the annual notional amounts traded of all the trading venues in the group that are based in the Union.
58. The relevant threshold for the opt-out is specified in MiFID II as an annual notional amount traded of one thousand billion Euros, which is single-counted and includes all transactions in exchange traded derivatives concluded under the rules of the trading venue(s).
59. Therefore for a trading venue to calculate its annual notional amount in the context of Article 36(5) of MiFIR it must aggregate the notional amount of every transaction in exchange traded derivatives that is concluded under its rules every day in the calendar year preceding entry into application of the Regulation and sum this with the equivalent calculations for any other trading venues within its group that are based in the Union. The MiFID II clarifies that, by single-counting, a trading venue should calculate the notional amount for every single transaction once, rather than in view of every buy and sell, which would double the notional amount for each transaction.
60. ESMA notes that neither MiFID nor MiFIR contains a definition of transaction for the purposes of calculating notional amount. ESMA acknowledges that there may be different practices between dif-

ferent trading venues as to whether technical trades¹⁵⁹ are considered transactions under the rules of the trading venue as per Article 36(5) of MiFIR.

Article 36(6)(d), MiFIR

ESMA shall develop draft regulatory technical standards specifying the following:

“[...]further specifications for calculation of the notional amount and the method by which ESMA may verify the calculation of the volumes and approve the opt-out.”

61. ESMA has been asked to further specify the calculation of notional amount in the context of Article 36(5), MiFIR. To ensure consistency in the way trading venues calculate their annual notional amount it is important for ESMA to provide further clarity and this will also help promote transparency.

Analysis

62. ESMA acknowledges that exchange traded derivatives include a variety of instrument types and there are therefore many ways in which notional amount can be calculated.

63. An option considered by ESMA was to advise trading venues to defer to industry standard practices in order to calculate their annual notional amounts. However, it is unclear that there are commonly agreed ways to calculate notional amount for all types of exchange traded derivatives.

64. Another option considered was for ESMA to specify the method by which notional amount should be calculated for all relevant instrument types. For this to be done exhaustively, however, ESMA would need an extensive amount of time to conduct its research thoroughly. Additionally, this approach would not ensure that the methods prescribed were future proof.

65. A more feasible option would be to adopt the approach taken in the ESMA Q&A on EMIR implementation¹⁶⁰, in which examples are given to describe how notional amount should be calculated for certain instrument types where there have been notable differences in industry practices (for example, in options and other relevant commodity derivatives).

Proposal

66. As stated in Recital 40 of MiFIR, the opt-out mechanism in Article 36(5), MiFIR was introduced because “it would be disproportionate to require smaller trading venues, particularly those closely linked to CCPs, to comply with non-discriminatory access requirements immediately if they have not yet acquired the technological capability to engage on a level playing field with the majority of the post-trade infrastructure market”. Therefore ESMA considers that the calculation of a trading venue’s annual notional amount should be conservative to ensure genuinely smaller trading venues that need time to acquire the right technological capabilities can avail themselves of the opt-out.

¹⁵⁹ Technical trades are defined in section 3.2. of this DP.

¹⁶⁰ See OTC Question 9 of http://www.esma.europa.eu/system/files/2013-1959_qa_on_emir_implementation.pdf

67. Where, for certain types of instruments there are equally accepted alternative approaches to calculating notional amount, but there are notable differences in the values to which these calculation methods give rise, it is appropriate to specify that the method which gives the higher value is used. This will help avoid the risk of larger trading venues using calculation methods that will minimise their annual notional amount in order to avoid being subject to the access provisions for the 30 month period, and as mentioned above, will help to ensure that genuinely smaller trading venues can utilise the opt-out mechanism, in line with the spirit of the level 1 text. It is also important that methods adopted are straightforward and unambiguous.
68. The following are examples of the types of principles ESMA considers appropriate and ESMA would like to invite views on whether these are appropriate for it to adopt going forward:
- i. For a future or an option, the notional amount should be the full value of the derivative's underlying assets at the relevant price at the transaction's start, i.e. the time at which the transaction is concluded, in line with ESMA's Q&A on EMIR implementation.
 - ii. Derivatives which are designated in units, rather than in currency, should be priced at the market value at the time of the transaction's start (and not, for example, at expiry or maturity), in line with ESMA's Q&A on EMIR implementation.
 - iii. For strategies that are made up of more than one transaction, for example a collar, the notional amount should be the sum of the values calculated for each individual transaction/leg of the strategy.

Q407: Do you agree with ESMA's proposed approach that where there are equally accepted alternative approaches to calculating notional amount, but there are notable differences in the value to which these calculation methods give rise, ESMA should specify the method that should be used?

Q408: Do you agree that the examples provided above are appropriate for ESMA to adopt given the purpose for which the opt-out mechanism was introduced? If not, why, and what alternative(s) would you propose?

Q409: For which types of exchange traded derivative instruments do you consider there to be notable differences in the way the notional amount is calculated? How should the notional amount for these particular instruments be calculated?

Q410: Are there any other considerations ESMA should take into account when further specifying how notional amount should be calculated? In particular, how should technical transactions be treated for the purposes of Article 36(5), MiFIR?

5.8. Non-discriminatory access to and obligation to license benchmarks

Introduction

Article 37, MiFIR

ESMA shall develop draft regulatory technical standards specifying:

“a) the information through licensing to be made available under paragraph 1(a) for the sole use of the CCP or trading venue;

b) other conditions under which access is granted, including confidentiality of information provided;

c) the standards guiding how a benchmark may be proven to be new in accordance with paragraph 2(a) and (b).”

1. Article 37 of MiFIR states that “where the value of any financial instrument is calculated by reference to a benchmark, a person with proprietary rights to the benchmark shall ensure that CCPs and trading venues are permitted, for the purposes of trading and clearing, non-discriminatory access to:

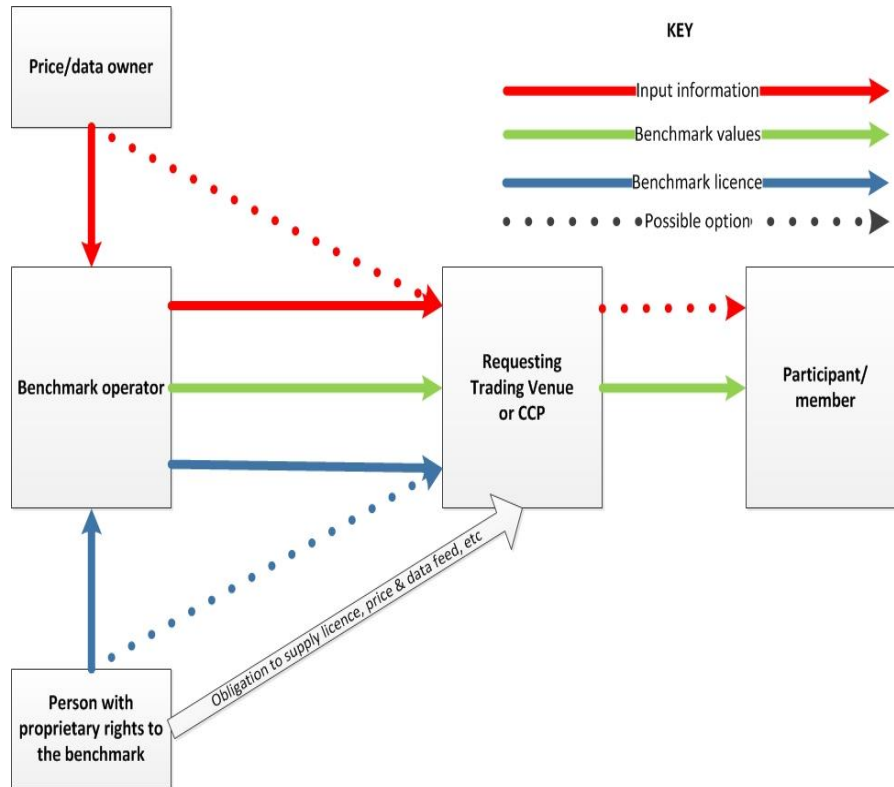
(a) relevant price and data feeds and information on the composition, methodology and pricing of that benchmark for the purposes of clearing and trading; and

(b) licences”.
2. Recital 40 of MiFIR asserts that “access to licences is critical to facilitate access between trading venues and CCPs under Articles 35 and 36 of MiFIR as otherwise licensing arrangements could still prevent access between trading venues and CCPs that they have requested access to. The removal of barriers and discriminatory practices is intended to increase competition for clearing and trading of financial instruments in order to lower investment and borrowing costs, eliminate inefficiencies and foster innovation in Union markets”.
3. Recital 40 of MiFIR further states that “The licensing duties under this regulation should be without prejudice to the general obligation of proprietary owners of benchmarks under competition law, and Articles 101 and 102 TFEU in particular, concerning access to benchmarks that are indispensable to enter a new market” underlining the point that “the refusal of access to infrastructure or to benchmarks [may] contravene[s] Articles 101 or 102 TFEU”.
4. Article 2(1)(39) of MiFIR defines a benchmark as “any rate, index or figure, made available to the public or published that is periodically or regularly determined by the application of a formula to, or on the basis of the value of one or more underlying assets or prices, including estimated prices, actual or estimated interest rates or other values, or surveys and by reference to which the amount payable under a financial instrument or the value of a financial instrument is determined”.
5. ESMA is aware that MiFIR covers a vast array of benchmarks given the definition above and so it will be important for ESMA to consider how the level 2 measures should take account of different types of benchmarks. For example, rate benchmarks function in a significantly different way to other benchmarks, such as those that seek to measure, replicate or track the price of a group of assets, or class of

relevant financial instruments, and so certain elements of the information that persons with proprietary rights to a benchmark have to make available through licensing will vary.

6. ESMA also notes that, although Article 37 of MiFIR only refers to persons with proprietary rights to a benchmark, trading venues and CCPs, there is a broader group of parties to consider, such as the organisation or legal person that controls the operation of the benchmark, the owner of relevant information used to derive the value of the benchmark, and the participants and members of the trading venue and CCP respectively (referred to as *users* going forward).
7. Article 37 of MiFIR pertains to a person with proprietary rights to a benchmark. Persons with proprietary rights to a benchmark could encompass a wide variety of market participants, ranging from public entities, trade organisations, trading venues, CCPs, price reporting agencies, to other organisations, and such persons may also be separate from the organisation or legal person that controls the operation of the benchmark. In such cases, the organisation or legal person that controls the calculation/operation of the benchmark may provide the licensee (trading venue or CCP) with the relevant information required (see below for further detail). However, the person with proprietary rights to a benchmark remains responsible for ensuring such information is provided.
8. Additionally, the person with proprietary rights to a benchmark may not own relevant pricing and reference data that is used to develop the value of the benchmark; this data may be owned and licensed by other third party firms unrelated to the person with proprietary rights to the benchmark.
9. Lastly, trading venues and CCPs operate to provide trading and clearing services to their users, and so it is important for ESMA to consider how the level 2 measures should encompass these users, where necessary, in trying to develop standards that will allow trading venues and CCPs to meet their obligations and for the access provisions to be effective in line with the spirit of the level 1 text.

Figure 3: this diagram illustrates the broader group of parties involved and how they might be linked in practice



10. According to the level 1 text, the person with proprietary rights to a benchmark is responsible for ensuring compliance with Article 37 of MiFIR and its implementing measures, even if a separate organisation or legal person is carrying out the relevant functions or owns the relevant data that needs to be made available to CCPs and trading venues through licensing.
11. Furthermore, in respect of the relevant information to be made available to trading venues and CCPs for trading and clearing purposes, which will be considered further in the following two sections of the Discussion Paper, it is important to make the distinction between three different aspects of information according to their respective sources/ownership:
 - i. information acquired by the person with proprietary rights to the benchmark/the organisation or legal person that controls the operation of the benchmark for computing the benchmark value;
 - ii. the information produced/owned by the person with proprietary rights benchmark; and
 - iii. the information produced by the trading venue when trading contracts based on the benchmark, i.e., the post-trade data feed. (This information flow is not subject to regime of Article 37 of MiFIR).

The information through licensing to be made available to trading venues and CCPs (Article 37(4)(a), MiFIR)

Background/Mandate/Empowerment

Article 37(4)(a), MiFIR

ESMA shall develop draft regulatory technical standards specifying the following:

“(a) the information through licensing to be made available under paragraph 1(a) for the sole use of the CCP or trading venue [...]”

12. ESMA has been asked to specify the information through licensing that persons with proprietary rights to a benchmark should make available to CCPs and trading venues in respect of relevant price and data feeds, composition, methodology and pricing for the purposes of clearing and trading.
13. Given the broad definition of benchmark in the level 1 already alluded to above, ESMA acknowledges that there will be a variety of different benchmark types captured by this Regulation and in some instances the information provided to a trading venue or CCP by the person with proprietary rights to that benchmark will need to be modified accordingly.
14. The analysis below focusses on information that trading venues and CCPs should be able to obtain if they need it for the purposes of trading and clearing and not on the minimum content of information that should be provided through licensing to all trading venues and CCPs.

Analysis

15. Article 37 of MiFIR requires the person with proprietary rights to a benchmark to license it to trading venues and CCPs under certain circumstances and against payment of a reasonable commercial price.
16. ESMA considers that, the relevant information to be made available to a trading venue through licensing should enable the trading venue to be able to make an initial assessment of the characteristics of the benchmark, market the relevant product and support on-going market surveillance activities.
17. ESMA considers that for a CCP the relevant information to be made available to it through licensing should enable the CCP to perform appropriate risk management of relevant open positions, including to perform netting, and to meet relevant obligations, such as to calculate risk intraday in order to assess whether it has an appropriate level of margin in accordance with requirements set out in EMIR.
18. Additionally ESMA notes that it is also important for the users of trading venues and CCPs to have access to relevant information for the access provisions to work effectively:
 - i. On the one hand, it is important for trading venues to ensure their users have access to relevant information for trading purposes to ensure compliance with relevant legal obligations¹⁶¹, and in

¹⁶¹ For example, Article 18(2) of MiFID II states that “Member States shall require that, where applicable, investment firms or market operators operating an MTF or an OTF provide, or are satisfied that there is access to, sufficient publicly available information to enable its users to form an investment judgement, taking into account both the nature of the users and the types of instruments traded”.

order to ensure their users understand the risks associated with trading a particular financial instrument and so they are able to price the financial instrument appropriately.

- ii. On the other hand, it is important for CCPs to ensure their users have access to relevant information for clearing purposes to ensure compliance with relevant legal obligations¹⁶², including enabling clearing members to understand the basis on which their margin requirements were calculated.
19. This leads to two questions, what is the relevant information to be made available to trading venues and CCPs and to what extent should information be passed on to trading venue and CCP users?

Proposal

Relevant price and data feeds

20. ESMA considers that in respect of price and data feeds, relevant information would include a feed of the benchmark values. For a trading venue, including its users, to determine the price of the relevant financial instrument and for a CCP to calculate its risk intraday this may mean that a real-time feed is necessary. This, however, depends on the frequency at which the benchmark value is calculated. For example, the values of some benchmarks are only calculated on a daily basis. Therefore, trading venues and CCPs should have access to such information as soon as it is calculated.
21. There may also be other relevant price and data feed information that will need to be made available depending on the type of benchmark, for example, for equity based benchmarks relevant corporate action information.
22. Historical data on benchmark values may also be required to enable a trading venue to market the financial instrument that refers to the benchmark and to enable a CCP to meet relevant requirements under EMIR, such as back and stress testing requirements.

¹⁶² For example, Article 38(3) of EMIR states that “A CCP shall disclose to its clearing members and to its competent authority the price information used to calculate its end-of-day exposures to its clearing members”.

- Q411: Do you agree that trading venues require the relevant information mentioned above? If not, why?**
- Q412: Is there any other additional information in respect of price and data feeds that a trading venue would need for the purposes of trading?**
- Q413: Do you agree that CCPs require the relevant information mentioned above? If not, why?**
- Q414: Is there any other additional information in respect of price and data feeds that a CCP would need for the purposes of clearing?**
- Q415: Do you agree that trading venues should have access to benchmark values as soon as they are calculated? If not, why?**
- Q416: Do you agree that CCPs should have access to benchmark values as soon as they are calculated? If not, why?**

Composition

23. ESMA considers that in respect of composition, when the benchmark seeks to measure, replicate or track a group of assets, or class of relevant financial instruments, relevant information would include the constituents of the benchmark and weightings. Details of any composition reviews and any changes made to the composition as a result of those reviews, or otherwise, should also be provided in advance, or where that is not possible, as soon as the change is made.
24. As above, ESMA acknowledges that for certain types of benchmarks this information will not be available. For example, reference rate benchmarks are determined by submissions set by a number of contributors, commodity benchmarks may be derived from spot or future prices obtained from regulated markets, and credit benchmarks are based on submissions from contributors. Where appropriate, the information provided will need to be modified accordingly and it will be essential for details on the methodology used to determine the benchmark to be clear and comprehensive to the trading venue and CCP.

- Q417: Do you agree that trading venues require the relevant information mentioned above? If not, why?**
- Q418: Is there any other additional information in respect of composition that a trading venue would need for the purposes of trading?**
- Q419: Do you agree that CCPs require the relevant information mentioned above? If not, why?**
- Q420: Is there any other additional information in respect of composition that a CCP would need for the purposes of clearing?**
- Q421: Do you agree that trading venues and CCPs should be notified of any planned changes to the composition of the benchmark in advance? And that where this is not possible, notification should be given as soon as the change is made? If not, why?**

Methodology

25. ESMA notes that the IOSCO Principles for Benchmarks¹⁶³ create an overarching framework for benchmarks. These include principles on transparency of methodologies. The principles set out relevant information that should be published, including a concise explanation that will enable users, including trading venues and CCPs, to understand how each benchmark determination was developed, the actual methodology used to make benchmark determinations and the rationale for adopting a particular methodology. The IOSCO Principles for Benchmarks also include the information on methodology that should at a minimum be published.
26. ESMA considers that in respect of methodology, in line with the IOSCO Principles for Benchmarks, relevant information should include:
 - i. definitions of key terms;
 - ii. all criteria and procedures used to develop the benchmark, including input selection, the mix of inputs used to derive the benchmark, the guidelines that control the exercise of discretion, priority given to certain data types¹⁶⁴, minimum data needed to determine a benchmark, any models or extrapolation methods, and the methodology used to determine the benchmark's closing value;
 - iii. procedures and practices designed to promote consistency in the exercise of discretion;
 - iv. the procedures which govern benchmark determination in periods of market stress or disruption, or periods where data sources may be absent (e.g., theoretical estimation models);
 - v. the procedures for dealing with error reports, including when a revision of a benchmark would be applicable;
 - vi. information regarding the frequency for internal reviews and approvals of the methodology. Where applicable, information regarding the procedures and frequency for external review of the methodology;
 - vii. the circumstances and procedures under which the person with proprietary rights to that benchmark will consult with users of the benchmark, as appropriate; and
 - viii. the identification of potential limitations of the benchmark, including its operation in illiquid or fragmented markets and the possible concentration of inputs.
27. ESMA considers that additional to the above, relevant information should also include rebalancing methodology, calculation behaviour when constituents are suspended or closed and hours during which the benchmark is calculated.
28. Additionally, procedures for making changes to the methodology should be provided and details of any change to the methodology should be provided in advance, or where that is not possible, as soon as the change is made.

¹⁶³ <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD415.pdf>

¹⁶⁴ For some types of benchmark there may be a hierarchical structure in place if certain input data becomes unavailable.

Q422: Do you agree that trading venues need the relevant information mentioned above? If not, why?

Q423: Is there any other additional information in respect of methodology that a trading venue would need for the purposes of trading?

Q424: Do you agree that CCPs require the relevant information mentioned above? If not, why?

Q425: Is there any other additional information in respect of methodology that a CCP would need for the purposes of clearing?

Q426: Is there any information in respect of the methodology of a benchmark that a person with proprietary rights to a benchmark should not be required to provide to a trading venue or a CCP?

Pricing

29. ESMA considers that in respect of pricing, relevant information may include the values, types and sources of inputs, for example of constituents, used to develop benchmark values. Such information would be covered by the reference to 'input selection and inputs used to derive the benchmark' above, which is also included in the IOSCO Benchmark Principles.
30. As highlighted in the introductory note, there are particular considerations that ESMA needs to make depending on the type of benchmark concerned. In ESMA's view, for reference rate benchmarks trading venues and CCPs will not need pricing information on individual submissions by contributors for the purposes of trading and clearing. ESMA considers that, for these types of benchmarks, input selection and inputs used to derive the benchmark would include the names of the contributors themselves. A different situation might be that of indices based on instruments traded on venues data of which is commercially available from several sources (trading venues, data vendors, etc...). ESMA would like to get the views of market participants on this¹⁶⁵.
31. In answering the following questions please refer to the specific uses and functions for which the specific information would be needed (e.g. for trading venues to assess the price level of the derivative, and for CCPs to perform collateral management).

¹⁶⁵ Please note that this section refers only to the information to be made available to trading venues and CCPs for trading and clearing purposes. This Discussion Paper addresses in the next section whether it should be possible to pass on part of that information.

Q427: Do you agree that trading venues require the relevant information mentioned above (values, types and sources of inputs, used to develop benchmark values)? If not, why?

Q428: Is there any other additional information in respect of pricing that a trading venue would need for the purposes of trading?

Q429: In what other circumstances should a trading venue not be able to require the values of the constituents of a benchmark?

Q430: Do you agree that CCPs require the relevant information mentioned above? If not, why?

Q431: Is there any other additional information in respect of pricing that a CCP would need for the purposes of clearing?

Q432: In what other circumstances should a CCP not be able to require the values of the constituents of a benchmark?

Other information

32. ESMA considers that trading venues and CCPs should be promptly notified of any inaccuracy in the calculation of a benchmark value and of the updated/corrected benchmark value.

33. Following agreement between the parties, any changes to the technical features of the data feed (to, for example, the technology used to transmit data, back-up solutions or the format used to present the data) should be disclosed to the trading venue or CCP as soon as possible before the change is implemented.

34. All information should be sent to all relevant trading venues and CCPs simultaneously.

35. Lastly, trading venues and CCPs should be notified of any relevant information described above that is available for its users, and whether it is provided directly by the person with proprietary rights to the benchmark or published on its website.

Q433: Do you agree that trading venues require the additional information mentioned above? If not, why?

Q434: Do you agree that CCPs require the additional information mentioned above? If not, why?

Q435: Is there any other information that a trading venue would need for the purposes of trading?

Q436: Is there any other information that a CCP would need for the purposes of clearing?

Other conditions under which access is granted, including confidentiality of information (Article 37(3)(b), MiFIR)

Background/Mandate/Empowerment

Article 37(4)(b), MiFIR

ESMA shall develop draft regulatory technical standards specifying the following:

“(b) Other conditions under which access is granted, including confidentiality of information provided; [...]”

36. In order to achieve the target of granting access on a fair and non-discriminatory basis a person with proprietary rights to a benchmark should provide licences, e.g. through standard terms, where all the necessary elements to set the legal commercial relationship in terms of rights and obligations are included. ESMA notes that the mandate above relates solely to the conditions under which access is granted and it is not asked to set requirements regarding conditions under which access can be denied.
37. Article 37(1) of MiFIR requires access on a non-discriminatory basis, it should therefore be the case that as long as pre-determined and non-discriminatory objective requirements are met, a person with proprietary rights to a benchmark should offer other trading venues and CCPs access on the same terms and conditions as it does for existing licensees, only differing where there are material grounds as per the last sentence of Article 37(1) of MiFIR. In this regard, a person with proprietary rights to a benchmark should make its fee schedules transparent to licensees and potential licensees, and in line with the level 1 text the schedules should be non-discriminatory. It is however possible, as per the level 1 text, for a person with proprietary rights to a benchmark to charge different CCPs, trading venues or any related persons different prices only where objectively justified having regard to reasonable commercial grounds such as the quantity, scope or field of use demanded.
38. When a person with proprietary rights to a benchmark is the same entity as a trading venue that uses that benchmark, that person must ensure that it provides access to other trading venues on a fair and reasonable basis in accordance with Articles 101 and 102 TFEU.
39. ESMA is aware that the licence agreement is subject to the legal frameworks set out by contractual law, trademark and intellectual property law, which apply. However, in line with Article 37 of MiFIR and Recital 40 of MiFIR it should not be possible to use a licence agreement in a way that would restrict market participant’s ability to exercise their rights under Articles 35, 36 and 37 of MiFIR.

Analysis

40. ESMA is aware that licence agreements are usually based on international standard terms and share, to a considerable extent, a common structure, encompassing conditions on the following matters:
 - i. **Scope of use:** these terms specify the concrete use of the index, the information to which the licensee has access and the use of trademarks.
 - ii. **Control of the use of the licence:** agreements normally include terms to ensure the control of the use of the benchmark (e.g. confidentiality).

- iii. **Termination:** These are standard conditions under which access may be terminated based on
- a. the expiration or termination date has come;
 - b. material breaches or reputational damages; and
 - c. changes in legislation, litigation, violation of law, insolvency event, change of control of licensee.

Proposal

41. ESMA considers that the choice of the conditions under which access is granted needs to be informed by the following two guiding principles:
- i. On the one hand, it is important to strike the right balance between the regulatory goal of granting access and the protection of the person with proprietary rights to a benchmark as creating and maintaining a benchmark has inherent costs and is part of its goodwill.
 - ii. On the other hand, Article 37 of MiFIR is to be construed as part of a legal solution encompassing Articles 35 and 36 of MiFIR. Consequently one should bear in mind that parties cannot through Article 37 of MiFIR cause a breach of Articles 35 and 36 of MiFIR, i.e., in practical terms it is to be noted that a clause in a benchmark licensing agreement cannot prevent a trading venue to give access to any CCP (or the other way around) and all terms should be non-discriminatory in line with the level 1 text as reflected in condition e) iii below. For example, terms regarding intellectual property rights should provide appropriate protection, but should not be used in a manner that will prevent/block access in line with the level 1 provisions.
42. Article 37 of MiFIR is silent on whether the foreseen licence agreement includes the right for licensees (trading venue or CCP) to pass on relevant information to their users. However, as mentioned above ESMA is of the view that trading venue and CCP users should have access to certain information, where necessary, for trading and clearing purposes. ESMA notes that the information to be passed on to users will vary depending on the nature of the benchmarks and the intended use. This information may be a subset of the information specified under the section above. ESMA is, therefore of the view that the person with proprietary rights to the benchmark may decide how to license the relevant information to users of trading venues and CCPs, for example, relevant information can be licensed directly to users or via the trading venue or CCP.
43. Where persons with proprietary rights to a benchmark make the relevant information publicly available (typically against payment), trading venues and CCPs should rely on licensing agreements to ensure that the information their users require is made available to them through the ability to access the public information.
44. However, where the persons with proprietary rights to the benchmark do not make the relevant information publicly available (e.g. by licensing), those persons are required to include in the agreement how relevant information will be disseminated to trading venue or CCP users. Where it is agreed that the trading venue or CCP will pass on the relevant information to its users, it will be reflected in the computation of the reasonable commercial price.

45. Moreover, access should be provided on a non-discriminatory basis, therefore persons with proprietary rights to a benchmark are required to allow the passing on of information to trading venue or CCP users to the extent that they have allowed it in similar cases.

Q437: Do you agree with the principles described above? If not, why?

Q438: Do users of trading venues need non-publicly disclosed information on benchmarks?

Q439: Do users of CCPs need non-publicly disclosed information on benchmarks?

Q440: Where information is not available publicly should users be provided with the relevant information through agreements with the person with proprietary rights to the benchmark or with its trading venue / CCP?

46. In ESMA's preliminary view, where a trading venue or a CCP has access to a benchmark under Article 37 of MiFIR the following conditions should be complied with by both parties to a licence agreement:
- i. All information provided by both parties, including in the request for access, for example, should be kept up-to-date throughout the duration of the access arrangement, and each party should inform the other about any material changes, including information that could have a reputational impact;
 - ii. The information provided and intellectual property licensed, including trademarks, should only be used for the specific purposes for which they were conveyed or licensed and may only be acted upon for the specific purposes agreed by the entities, being all other usage or sharing strictly forbidden. The information covered by this confidentiality would be all non-public and commercially sensitive information.
 - iii. The use of the licensed intellectual property may not cause any damage to the licensor, nor diminish the commercial value of said intellectual property.
 - iv. There should be agreed procedures for:
 - a. communication between the relevant entities that ensure its timely, reliable and secure nature;
 - b. consulting where any change to either entity's operations is likely to have a material impact on the licence agreement or on the risks to which the other entity is exposed;
 - c. notifying the relevant party within a reasonable notice period before the change is implemented, where the impact of a change is unlikely to be significant;
 - d. resolving disputes;
 - e. termination of the licence arrangements. In particular:
 - (i) The procedure for the termination of the licence agreement by any of the entities should be clear and transparent and should cater for termination in an orderly manner that does not unduly expose the other entity to additional risks;

- (ii) Termination should not be triggered by minor breaches of the contract, and the relevant party should be given a reasonable amount of time to remedy any breach that does not give rise to immediate termination.
- f. identifying, monitoring and managing the potential risks arising from the access arrangement; and
- g. how, if applicable, relevant information will be disseminated to trading venue/CCP users.
- v. The licence agreement should:
 - a. Be clearly defined, transparent, valid and enforceable in all relevant jurisdictions, including clear provisions on its scope, in particular, stating which information and intellectual property may be sold by the licensee. The licensee should always retain the possibility of selling the market data resulting from trading a financial instrument that references the benchmark.
 - b. Contain provisions on the extent to which information provided by the person with proprietary rights to the benchmark can be passed on by the trading venue or CCP to its users where this is necessary for trading or clearing purposes.
 - c. Not contain any provision that restricts or creates obstacles for the establishment or future extension of the access arrangement to other entities or mandate the use of a designated CCP, where derivatives constructed on the benchmark would have to be mandatorily cleared, or in any other way hinder the rights under Articles 35 and 36 of MiFIR.

Q441: Do you agree with the conditions set out above? If not, please state why not.

Q442: Are there any other conditions persons with proprietary rights to a benchmark and trading venues should include in their terms for agreeing access?

Q443: Are there any other conditions persons with proprietary rights to a benchmark and CCPs should include in their terms for agreeing access?

Q444: Which specific terms/conditions currently included in licensing agreements might be discriminatory/give rise to preventing access?

Q445: Do you have views on how termination should be handled in relation to outstanding/significant cases of breach?

Standards guiding how a benchmark may be proven to be new (MiFIR Article 37(3)(c))

Background/Mandate/Empowerment

Article 37(3)(a), MiFIR

ESMA shall develop draft regulatory technical standards specifying the following:

“(c) The standards guiding how a benchmark may be proven to be new in accordance with paragraph 2(a) and (b).”

47. Article 37 of MiFIR achieves a balanced trade-off between fostering competition by providing access, on the one hand, and, on the other hand, protection of innovation and of legitimate intellectual property rights by postponing the obligation to license for a 30 month period for new benchmarks.
48. In this remit, ESMA’s role is to specify the standards guiding how a benchmark may be proven to be new. It should be noted that this empowerment differs from others, where it does not refer to conditions specifying how a benchmark may be proven to be new, but rather requires standards guiding how a benchmark may be proven to be new. ESMA understands that it is required to set factors that should be assessed and weighed in order to take a decision regarding the novelty of a benchmark.
49. It is important to point out that Article 37 of MiFIR mandates the provision of access to benchmarks, but does not preclude the competent application of the relevant competition or intellectual property law. Accordingly, the provision determines when a benchmark from the same person with proprietary rights to an existing benchmark is new, but does not cover benchmarks from other persons having proprietary right thereto. This question is to be dealt with by intellectual property law.
50. Furthermore, it is the scope of Article 37 (1) of MiFIR to prevent benchmark owners from creating barriers to entry by repeatedly making small changes to their existing benchmarks in order to benefit from the transitional period referred to in Article 37(2) of MiFIR.

Analysis

51. Article 37(1) of MiFIR enumerates cumulative criteria, guiding how a benchmark may be proven to be new, namely if:
 - (i) it is not a **mere copy or adaptation** of any such existing benchmark, the **methodology**, including the underlying data of the new benchmark is meaningfully different from any such existing benchmarks; and
 - (ii) the new benchmark is **not a substitute** for any such existing benchmark.
52. The criteria above state that a new benchmark is not a simple duplication or adapted version of any existing benchmark. Additionally, a benchmark is not a new benchmark, unless its methodology is

meaningfully different from any existing benchmark. And lastly, a benchmark cannot constitute a new benchmark if it can be substituted by any existing benchmark¹⁶⁶.

53. ESMA notes that any adaptation to an existing benchmark, whether material or not, would not constitute a new benchmark. In this respect the IOSCO Principles for Benchmarks state that the rationale of any proposed material change to a benchmark's methodology, and the procedures for making such changes should be published or made available. The Principles also assert that procedures should clearly define what constitutes a material change.
54. There are benchmarks that release a new/further series on a periodic basis¹⁶⁷, such that the benchmark is a continuation of the prior benchmark. In ESMA's view each newly released series of a benchmark should not be considered a new benchmark.
55. Given the variety of benchmark types covered by this Regulation, ESMA considers that it would be appropriate to list a number of factors that could be used to assess whether a benchmark is new. It will be important to balance/weight the factors against one another in order to make an appropriate assessment for the purposes of Article 37(2). Additionally, it is important to note that the way in which factors are weighed against one another may vary on a case by case basis. For example, two benchmarks may be highly correlated, but their compositions fundamentally different to one another.

Proposal

56. ESMA has identified some factors that could be considered when assessing whether a benchmark is new. With that in mind, in ESMA's preliminary view a benchmark is less likely to be new in the following circumstances:
 - i. If contracts based on the newer benchmark are fungible/capable of being netted by a CCP with the contracts based on a relevant existing benchmark¹⁶⁸.
 - ii. If the regions and industry sectors covered by the benchmarks are the same, or relatively similar¹⁶⁹.
 - iii. If the benchmark values are highly correlated¹⁷⁰.

¹⁶⁶ Please note that the criteria mentioned above always compare two benchmarks owned by the same person with proprietary rights to the benchmark(s).

¹⁶⁷ For example, certain CDS benchmarks roll into new series.

¹⁶⁸ ESMA notes that it is possible for two benchmarks from two different persons with proprietary rights to the benchmarks to be fungible, but still fundamentally different; this is however in the context of the same person with proprietary rights to the benchmarks, and so this factor could provide some important indications.

¹⁶⁹ Two benchmarks that cover very different industry sectors, for example, a metals benchmark versus an agricultural benchmark, are likely to meet the cumulative criteria in the level 1 text. However if, for example, a newer benchmark has the same industry sector coverage as an existing benchmark, but its geographical coverage is slightly different and that does not have a considerable impact on the value of the benchmark, it may not be considered a new benchmark.

¹⁷⁰ It is possible for the value of two benchmarks to be highly correlated, particularly in the short run, but for the benchmarks to still be fundamentally different. And so, correlation cannot be decisive factor, as benchmarks can often be highly correlated and synchronous (for example, although owned by different persons with proprietary rights to the benchmarks, the development of DAX is often correlated to Dow Jones), therefore it will be important for the person with proprietary rights to the benchmark to take account of long run correlation and whether there are similarities in the composition and the methodology of each of the benchmarks.

- iv. If the composition of the benchmarks, for example, the number of constituents, the actual constituents, their values and their weightings, are the same, or relatively similar¹⁷¹.
 - v. If the methodologies of each benchmark are the same, or relatively similar¹⁷².
57. In ESMA's view the following factors could be relevant when assessing whether a benchmark is new, however we consider them to be less important than the factors mentioned above:
- i. If the benchmarks are calculated at the same frequency¹⁷³.
 - ii. If the user group that the benchmarks are aimed at capturing the interest of are the same, or relatively similar¹⁷⁴.
58. In ESMA's view each newly released series of a benchmark should not be considered a new benchmark.

Q446: Do you agree with the approach ESMA has taken regarding the assessment of a benchmark's novelty, i.e., to balance/weight certain factors against one another? If not, how do you think the assessment should be carried out?

Q447: Do you agree that each newly released series of a benchmark should not be considered a new benchmark?

Q448: Do you agree that the factors mentioned above could be considered when assessing whether a benchmark is new? If not, why?

Q449: Are there any factors that would determine that a benchmark is not new?

¹⁷¹ The assessment will depend on the ways in which the compositions of the two benchmarks are related, and where there are differences, whether those differences are significant. For example, all other things being equal, a minor difference in the weightings of two constituents is unlikely to characterise a benchmark as new. It will also however be important to consider whether the methodologies adopted by each of the benchmarks are related, and to what extent.

¹⁷² If two benchmarks are calculated in a relatively similar way it is likely that the newer benchmark will not satisfy the level 1 criteria, however it is important to note that in such scenarios the person with proprietary rights to the benchmarks should also take account of each benchmark's composition. It is possible for two benchmarks to calculate their benchmark value in the same way, but still be fundamentally different if the composition of each is significantly different.

¹⁷³ It will be important to take account of other factors here as it is highly possible for two benchmarks to be calculated at the same frequency, such as end of day, but still be fundamentally different.

¹⁷⁴ Two benchmarks aimed at the same group of users may still be fundamentally different. On the other hand, a benchmark aimed at dealers could essentially still be the same as, or similar to, a relevant existing benchmark aimed at buy side firms. Additionally, it will be difficult to ensure consistency in the way user group is interpreted, for example, dealers that are based in two different, but similar, jurisdictions might be treated by some as two separate user groups. Therefore it will be very important to also take account of other factors.

6. Requirements applying on and to trading venues

6.1. Admission to Trading

Background/Mandate/Empowerment

1. Article 51 of MiFID II deals with the basic requirements that need to be fulfilled for the admission to trading of financial instruments to regulated markets.
2. Article 51(6) of MiFID II requires ESMA to develop RTS which shall specify and clarify a number of aspects in relation to characteristics financial instruments need to have for being considered eligible for admission to trading on a regulated market and arrangements regulated markets shall have in place concerning certain aspects of disclosure and access to information.

Article 51(6), MiFID II

ESMA shall develop draft regulatory technical standards specifying the following:

“(a) specify the characteristics of different classes of instruments to be taken into account by the regulated market when assessing whether an instrument is issued in a manner consistent with the conditions laid down in the second subparagraph of paragraph 1 for admission to trading on the different market segments which it operates;

“(b) clarify the arrangements that the regulated market is required to implement so as to be considered to have fulfilled its obligation to verify that the issuer of a transferable security complies with its obligations under European Union law in respect of initial, ongoing or ad hoc disclosure obligations;

“(c) clarify the arrangements that the regulated market has to establish pursuant to paragraph 3 in order to facilitate its members or participants in obtaining access to information which has been made public under the conditions established by European Union law.”

3. The Article is virtually identical with Article 40 of of MiFID I in respect of which implementing measures have been adopted in the MiFID I Level 2 Regulation (Commission Regulation (EC) No 1287/2006).
4. The text of those existing implementing provisions is displayed below.

Article 35 (Article 40(1) of Directive 2004/39/EC) Transferable securities

1. Transferable securities shall be considered freely negotiable for the purposes of Article 40(1) of Directive 2004/39/EC if they can be traded between the parties to a transaction, and subsequently transferred without restriction, and if all securities within the same class as the security in question are fungible.

2. Transferable securities which are subject to a restriction on transfer shall not be considered as freely negotiable unless that restriction is not likely to disturb the market.

3. Transferable securities that are not fully paid may be considered as freely negotiable if arrangements have been made to ensure that the negotiability of such securities is not restricted and that adequate

information concerning the fact that the securities are not fully paid, and the implications of that fact for shareholders, is publicly available.

4. When exercising its discretion whether to admit a share to trading, a regulated market shall, in assessing whether the share is capable of being traded in a fair, orderly and efficient manner, take into account the following:

(a) the distribution of those shares to the public;

(b) such historical financial information, information about the issuer, and information providing a business overview as is required to be prepared under Directive 2003/71/EC, or is or will be otherwise publicly available.

5. A transferable security that is officially listed in accordance with Directive 2001/34/EC of the European Parliament and of the Council [7], and the listing of which is not suspended, shall be deemed to be freely negotiable and capable of being traded in a fair, orderly and efficient manner.

6. For the purposes of Article 40(1) of Directive 2004/39/EC, when assessing whether a transferable security referred to in Article 4(1)(18)(c) of that Directive is capable of being traded in a fair, orderly and efficient manner, the regulated market shall take into account, depending on the nature of the security being admitted, whether the following criteria are satisfied:

(a) the terms of the security are clear and unambiguous and allow for a correlation between the price of the security and the price or other value measure of the underlying;

(b) the price or other value measure of the underlying is reliable and publicly available;

(c) there is sufficient information publicly available of a kind needed to value the security;

(d) the arrangements for determining the settlement price of the security ensure that this price properly reflects the price or other value measure of the underlying;

(e) where the settlement of the security requires or provides for the possibility of the delivery of an underlying security or asset rather than cash settlement, there are adequate settlement and delivery procedures for that underlying as well as adequate arrangements to obtain relevant information about that underlying.

Article 36 (Article 40(1) of Directive 2004/39/EC) Units in collective investment undertakings

1. A regulated market shall, when admitting to trading units in a collective investment undertaking, whether or not that undertaking is constituted in accordance with Directive 85/611/EEC, satisfy itself that the collective investment undertaking complies or has complied with the registration, notification or other procedures which are a necessary precondition for the marketing of the collective investment undertaking in the jurisdiction of the regulated market.

2. Without prejudice to Directive 85/611/EEC or any other Community legislation or national law relating to collective investment undertakings, Member States may provide that compliance with the requirements referred to in paragraph 1 is not a necessary precondition for the admission of units in a collective investment undertaking to trading on a regulated market.

3. When assessing whether units in an open-ended collective investment undertaking are capable of being traded in a fair, orderly and efficient manner in accordance with Article 40(1) of Directive 2004/39/EC, the regulated market shall take the following aspects into account:

(a) the distribution of those units to the public;

(b) whether there are appropriate market-making arrangements, or whether the management company of the scheme provides appropriate alternative arrangements for investors to redeem the units;

(c) whether the value of the units is made sufficiently transparent to investors by means of the periodic publication of the net asset value.

4. When assessing whether units in a closed-end collective investment undertaking are capable of being traded in a fair, orderly and efficient manner in accordance with Article 40(1) of Directive 2004/39/EC, the regulated market shall take the following aspects into account:

(a) the distribution of those units to the public;

(b) whether the value of the units is made sufficiently transparent to investors, either by publication of information on the fund's investment strategy or by the periodic publication of net asset value.

Article 37 (Article 40(1) and (2) of Directive 2004/39/EC) Derivatives

1. When admitting to trading a financial instrument of a kind listed in points of Sections C(4) to (10) of Annex I to Directive 2004/39/EC, regulated markets shall verify that the following conditions are satisfied:

(a) the terms of the contract establishing the financial instrument must be clear and unambiguous, and enable a correlation between the price of the financial instrument and the price or other value measure of the underlying;

(b) the price or other value measure of the underlying must be reliable and publicly available;

(c) sufficient information of a kind needed to value the derivative must be publicly available;

(d) the arrangements for determining the settlement price of the contract must be such that the price properly reflects the price or other value measure of the underlying;

(e) where the settlement of the derivative requires or provides for the possibility of the delivery of an underlying security or asset rather than cash settlement, there must be adequate arrangements to enable market participants to obtain relevant information about that underlying as well as adequate settlement and delivery procedures for the underlying.

2. Where the financial instruments concerned are of a kind listed in Sections C (5), (6), (7) or (10) of Annex I to Directive 2004/39/EC, point (b) of paragraph 1 shall not apply if the following conditions are satisfied:

(a) the contract establishing that instrument must be likely to provide a means of disclosing to the market, or enabling the market to assess, the price or other value measure of the underlying, where the price or value measure is not otherwise publicly available;

(b) the regulated market must ensure that appropriate supervisory arrangements are in place to monitor trading and settlement in such financial instruments;

(c) the regulated market must ensure that settlement and delivery, whether physical delivery or by cash settlement, can be effected in accordance with the contract terms and conditions of those financial instruments.

Analysis

5. Again the empowerment in substance is virtually identical with the empowerment contained in Article 40(6) of MiFID I.
6. ESMA notes that the empowerments in Article 40(6) of MiFID I and Article 51(6) of MiFID II consist of three different parts whereas the existing requirements in Articles 35 to 37 of Regulation (EC) No 1287/2006 in essence only provide implementing measures in relation to one of those parts, i.e. the empowerment in letter (a) of Article 40(6) of MiFID I.
7. Therefore, ESMA will take the existing rules in Articles 35 to 37 of Regulation (EC) No 1287/2006 as a basis for developing technical standards under Article 51(6)(a) while ESMA will need to develop technical standards for letters (b) and (c) from scratch.

Article 51(6)(a), MiFID II – Specifying Characteristics of Different Classes of Financial Instruments

8. ESMA conducted an initial fact-finding with competent authorities to assess how the rules in the existing Level 2 Regulation have worked in practice ever since the application of MiFID I from 1 November 2007. The evidence and the information provided in response indicated that overall the above-mentioned provisions have proven to be appropriate and no specific problems in supervisory practice have been reported.
9. It is also important to bear in mind that the requirements for admitting securities to trading on a regulated market can operate and may need to be assessed in conjunction with the requirements for admitting securities to official listing on a stock exchange as prescribed by the Consolidated Listing Directive¹⁷⁵. Generally speaking, the regulatory requirements for admission to trading on a regulated market as prescribed by MiFID should not be stricter than the requirements for being listed on an official list as prescribed by the Consolidated Listing Directive.¹⁷⁶ To be officially listed is normally a label of first rate listing, meaning higher eligibility criteria.
10. In addition, it is worth mentioning that any requirements imposed by the Consolidated Listing Directive cannot be altered in this process but would require a separate legislative process.
11. Taking past supervisory experiences and the continued application of the Consolidated Listing Directive into consideration, ESMA intends to use the existing framework in Articles 35 to 37 of Regulation (EC) 1287/2006 as the benchmark for future RTS in respect of specifying characteristics for

¹⁷⁵ <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:2001L0034:20070120:EN:PDF>

¹⁷⁶ In that context also confer Article 35 (5) Regulation (EC) 1287/2006.

transferable securities, units in collective investment undertaking and derivatives. At this stage ESMA would only consider minor adaptations to the existing regime as necessary.

Q450: What are your views regarding the conditions that have to be satisfied in order for a financial instrument to be admitted to trading?

Q451: In your experience, do you consider that the requirements being in place since 2007 have worked satisfactorily or do they require updating? If the latter, which additional requirements should be imposed?

Q452: More specifically, do you think that the requirements for transferable securities, units in collective investment undertakings and/or derivatives need to be amended or updated? What is your proposal?

12. One of the minor adaptations ESMA is considering at this point in time is in respect of the requirements applicable to units in collective investment undertakings. Article 36 (3)(b) of Regulation (EC) No 1287/2006 currently requires regulated markets to take into account whether there are appropriate market-making arrangements, or whether the management company of the scheme provides appropriate alternative arrangements for investors to redeem the units when assessing whether units can be traded in a fair, orderly and efficient manner.
13. In the context of ETFs, however, the ESMA Guidelines on ETFs and other UCITS issues clarify that ETFs not only need to have at least one market maker but if they are admitted to trading on a regulated market they also need to have alternative arrangements for investors to redeem units at least in cases where the regulated market value of units or shares significantly varies from the net asset value.¹⁷⁷ ESMA therefore considers that all ETFs in order to be capable of being traded in a fair, orderly and efficient manner need to offer market making arrangements and direct redemption facilities at least in cases where the price of units or shares significantly varies from the net asset value.
14. ESMA notes that the ESMA Guidelines on ETFs and other UCITS issues for legal reasons only apply to UCITS ETFs. ESMA however considers the provision of alternative redemption facilities in addition to market making arrangements also important for non-UCITS ETFs so that a future regulatory standard would not differentiate between UCITS ETFs and other ETFs and the new requirement would apply to all ETFs admitted to trading on a regulated market.

Q453: How do you assess the proposal in respect of requiring ETFs to offer market making arrangements and direct redemption facilities at least in cases where the regulated market value of units or shares significantly varies from the net asset value?

Article 51(6)(b) of MiFID II – Clarifying Arrangements for Ensuring Compliance with Disclosure Obligations

15. Article 51(3)(1) of MiFID II requires regulated markets to establish and maintain effective arrangements to verify that issuers of transferable securities comply with obligations of initial, on-going and ad hoc disclosure under Union Law.

¹⁷⁷ http://www.esma.europa.eu/system/files/esma_en_o.pdf, cf. paragraph 23.

16. ESMA shall develop RTS to clarify the arrangements a regulated market has to implement so as to be considered in compliance with this requirement.
17. The obligations under Union law mentioned stem from the Prospectus, the Transparency and the Market Abuse Directive (in the future the Market Abuse Regulation). While it is mainly the issuers who are under the direct responsibility to comply with these obligations, regulated markets shall also have arrangements in place to be able to verify compliance of issuers.
18. Existing practice on regulated markets seems to vary significantly: some regulated markets only require that issuers are aware of their obligation under disclosure rules and transparency rules applicable to listed companies, others require issuers to adopt an appropriate management control system, others require that a sponsor (or other independent financial advisers) undertake the duty to inform the management body with regard to the responsibilities and obligations resulting under the laws in force from admission to trading.
19. Before forming its final view on the level of prescription needed in implementing measures for the arrangements, regulated markets have to have in place for such compliance verifications, ESMA takes note that the substantive requirements to have arrangements in place are already in application since 1 November 2007.
20. ESMA therefore would like to use this Discussion Paper in order to identify best practices in application on European markets at the moment and encourages regulated markets and issuers alike to submit descriptions of arrangements in place, how they operate and views regarding their efficiency.

Q454: Which arrangements are currently in place at European markets to verify compliance of issuers with initial, on-going and ad hoc disclosure obligations?

Q455: What are your experiences in respect of such arrangements?

Q456: What is your view on how effective these arrangements are in performing verification checks?

Article 51(6)(c) of MiFID II – Clarifying Arrangements for Facilitating Access to Information

21. Article 51(3)(2) requires regulated markets to establish arrangements to facilitate the access of members or participants to information being made public under Union law.
22. ESMA shall develop RTS to clarify the arrangements a regulated market has to establish in order to facilitate such access.
23. ESMA notes that this requirement shall promote access of members and participants on regulated markets to information published in accordance with Union law. The relevant Union law for these purposes appear to be the Prospectus, Transparency and Market Abuse Directives (in the future the Market Abuse Regulation) as well as potentially the MiFIR trade transparency information as it shall be ensured that members and participants are aware of relevant information that may have an influence on the valuation of a financial instrument on as equal terms as possible.
24. As in the previous case the substantive requirement without implementing measures is already applicable since 1 November 2007. Therefore ESMA would also in this case like to find out about existing

arrangements and ask for experiences with them before forming its final view on future implementing measures.

Q457: What arrangements are currently in place on European regulated markets to facilitate access of members or participants to information being made public under Union law?

Q458: What are your experiences in respect of such arrangements?

Q459: How do you assess the effectiveness of these arrangements in achieving their goals?

Q460: Do you agree with that, for the purpose of Article 51 (3) (2) of MiFID II, the arrangements for facilitating access to information shall encompass the Prospectus, Transparency and Market Abuse Directives (in the future the Market Abuse Regulation)? Do you consider that this should also include MiFIR trade transparency obligations?

6.2. Suspension and Removal of Financial Instruments from Trading -connection between a derivative and the underlying financial instrument and standards for determining formats and timings of communications and publications

Background/Mandate/Empowerment

1. Article 52(1) of MiFID II empowers a market operator (MO) to suspend or remove from trading financial instruments which no longer comply with the rules of the regulated market (RM), unless such a step would be likely to cause significant damage to investors' interests or the orderly functioning of the market.
2. Article 52(2) MiFID II also requires that "a market operator that suspends or removes from trading a financial instrument also suspends or removes from trading the derivatives as referred to in points (4) to (10) of Section C of Annex 1 that relate or are referenced to that financial instrument where necessary to support the objectives of the suspension or removal of the underlying financial instrument".
3. According to Article 52(2) of MiFID II the NCA in whose jurisdiction the suspension or removal originated has to decide whether one of the three reasons to extend the suspension process (suspected market abuse, a take-over bid or the non-disclosure of inside information about the issuer or financial instrument in breach of MAR Articles 7 and 17) to other regulated markets, MTFs, OTFs and SIs in its jurisdiction, is given. If the competent authority comes to the conclusion that none of the three reasons apply, the competent authority is not required to expand the suspension or removal and to communicate its decision to ESMA and the competent authorities of the other Member States.
4. If the suspension is due to one of the three reasons and in the event of a suspension originating from a MO, Article 52(2) MiFID II details the process that must then be followed:
 - i. The MO suspends the derivatives where this is necessary to support the objectives of the suspension or removal of the underlying financial instrument.
 - ii. The MO makes public their decision to suspend the financial instrument and any related derivatives and communicates relevant information to its relevant competent authority (CA).
 - iii. If the competent authority comes to the conclusion that the suspension is due to suspected market abuse, a take-over bid or non-disclosure of inside information about the issuer or financial instrument in breach of Article 7 and 17 MAR, the CA orders suspension of the financial instrument and any related derivatives on other RMs, MTFs, OTFs and SIs in its jurisdiction trading the suspended instruments or any related derivatives, unless this could cause significant damage to investors' interests or the orderly functioning of the market.
 - iv. This CA makes public such a suspension decision and communicates it to ESMA and other CAs ('notified CAs') including an explanation if the decision was not to follow the suspension.
 - v. The notified CAs order suspension of trading on other RMs, MTFs, OTFs and SIs in their jurisdictions trading the suspended instruments or any related derivatives, unless this could cause significant damage to investors' interests or the orderly functioning of the market in the notified CAs jurisdiction.

- vi. The notified CAs communicate their decision on whether to follow the suspension to ESMA and other CAs, including an explanation if the decision was not to follow the suspension.
5. The process detailed above also applies – in general - in the case of removal of a financial instrument and any related derivatives from trading and when a suspension is lifted, whereas a removal decision by the originating CA does not necessarily lead to mandatory removal by the notified CA(s) but could lead to a mere ‘suspension’ as well.
6. Article 52(2) of MiFID II also stipulates that the above notification process applies in the case where the decision to suspend or remove a financial instrument from trading is taken by the NCA pursuant to Article 69(2) of MiFID II.
7. Article 32 of MiFID II applies the same rules as outlined above where the operator of an MTF or OTF suspends or removes a financial instrument and related derivatives from trading. All the explanations and statements in this section in respect of Article 52 shall be read as applying to Article 32 as well.
8. This regime is without prejudice to the power of NCAs to initiate a suspension or removal from trading at their own initiative under Article 69(2)(m) and (n) of MiFID II.

Article 52(2), MiFID II

In order to ensure that the obligation to suspend or remove from trading such derivatives is applied proportionately, ESMA shall develop draft regulatory technical standards to further specify the cases in which the connection between a derivative relating or referenced to a financial instrument suspended or removed from trading and the original financial instrument implies that the derivative are also to be suspended or removed from trading, in order to achieve the objective of the suspension or removal of the underlying financial instrument.

ESMA shall develop draft implementing technical standards to determine the format and timing of the communications and publications referred to in Paragraph 2.

9. Article 52 of MiFID II contains three empowerments for implementing measures in Level 2. The first one, in Article 52(2), requires ESMA to specify cases in which the connection between a derivative relating or referenced to a financial instrument suspended or removed from trading and the original financial instrument implies that the derivative should also be suspended or removed from trading, in order to achieve the objective of the suspension or removal of the underlying financial instrument.
10. The second one, in Article 52(3) of MiFID II, requires ESMA to develop implementing technical standards to determine the format and timing of all the communications and publications.
11. The third empowerment in Article 52(4) of MiFID II empowers the European Commission to adopt delegated acts in order to specify a list of circumstances constituting significant damage to investors’ interests and the orderly functioning of the market which could then be the basis of a decision not to follow a suspension or removal notification. Such list of circumstances is discussed in the Consultation Paper on technical advice to the European Commission.
12. Article 32 of MiFID II contains a parallel set of empowerments for MTFs and OTFs. Therefore all the proposals shall be read as applying to regulated markets, MTFs and OTFs.

Analysis

Article 52(2) of MiFID II- Specification when derivatives relating or referring to the underlying should also be suspended or removed from trading

13. ESMA considers that the empowerment in Article 52(2) of MiFID II, to further specify the cases in which the connection between a derivative relating or referenced to a financial instrument suspended or removed from trading and the original financial instrument implies that the derivative is also to be suspended or removed from trading, in order to achieve the objective of the suspension or removal of the underlying instrument, necessitates the specification of two aspects:
14. First, there is the aspect of the connection between the derivative and the financial instrument suspended or removed from trading. A difference can be made between derivatives for which the formation of the price or value of the derivative is completely dependent on the prevailing price or value of the single financial instrument as its sole underlying, and derivatives for which its price or value is dependent on multiple price inputs. For instance, derivatives can relate to an index or a basket of financial instruments.
15. Second, there is the aspect of the objective for which the underlying instrument is suspended or removed. The empowerment in Article 52(2) of MiFID II refers to cases in which the connection between a derivative and the original financial instrument implies that the derivative should also be suspended or removed from trading, in order to achieve the objective of the suspension or removal of the underlying financial instrument.
16. In ESMA's view, the objective of a suspension – whether initiated by a trading venue under Article 52 or by a NCA under Article 69 of MiFID II, and whether resulting from suspected market abuse, a take-over bid or the non-disclosure of inside information – would not affect the decision to suspend derivatives which should be suspended to ensure the proportionate application of these obligations.
17. The rationale for extending the obligation to related derivatives is to ensure that behaviour which a suspension is designed to prevent cannot simply transfer to a related market, and to support fair and orderly markets. The inability to correctly price related derivatives, leading to a disorderly market, would be strongest for the cases where the price or value of the related derivative is completely dependent on the prevailing price or value of the financial instrument that is suspended or removed from trading as its sole underlying. When the underlying is a basket of financial instruments or an index of which the suspended financial instrument is only one part, the ability of market participants to determine the correct price would be less affected. Thus, it would be feasible to make a distinction between the connection between the derivative and the underlying.
18. In this context, ESMA would also like to note that it considers access to reliable information about the underlying to be an element of the Market Operators' obligation to provide for the fair, orderly and efficient trading of derivatives (Article 51 MiFID II).

Format and timing of communications

19. ESMA notes that Article 52 MiFID II requires determining the format and timing of communications and publications in a total of ten distinct scenarios:
 - i. the communication by MOs to CAs of the decision to suspend/remove a financial instrument and any derivatives related to the originally suspended instrument;

- ii. the publication by MOs of a suspension or a removal of a financial instrument and any derivatives related to the originally suspended instrument;
 - iii. the communication by the CA to ESMA and to other CAs of a decision to suspend or remove or a decision not to suspend/remove (including an explanation if the decision was not to follow the suspension) in respect of the same and/or related instruments traded on another trading venue or SI in the same jurisdiction;
 - iv. the publication by the CA of a decision to suspend or remove or a decision not to suspend/remove (including an explanation if the decision was not to follow the suspension) in respect of the same and/or related instruments traded on another trading venue or SI in the same jurisdiction;
 - v. the communication of the decision by notified CAs whether to follow the suspension or removal to ESMA and to other CAs, including an explanation if the decision was not to follow the suspension;
 - vi. the communication of the lifting of a suspension by MOs to CAs (following a communication under a));
 - vii. the publication of the lifting of a suspension (following a publication under b));
 - viii. the communication of the lifting of a suspension by a CA to ESMA and other CAs (following a communication under c));
 - ix. the publication by a CA of the lifting of a suspension (following a publication under d)); and
 - x. the communication of the decision by notified CAs whether to also lift a suspension to ESMA and other CAs (following a communication under e)).
20. According to Article 52(2)(subparagraph 6) of MiFID II, the whole notification procedure shall also apply if the original suspension or removal had been effected by a CA pursuant to Article 69(2)(m, n) of MiFID II. Therefore a CA would need to communicate such suspension or removal to ESMA and other CAs and the other CAs would need to communicate to ESMA and other CAs whether they also suspend/remove the financial instrument and any derivatives related to the originally suspended instrument. The same applies to the lifting of the initial suspension.
21. In respect of all the scenarios involving a communication between NCAs and ESMA and/or other NCAs (more precisely, letters iii, v, viii and x. of the table under paragraph 19.) ESMA would like to make stakeholders aware that ESMA is currently already developing a centralised multilateral functionality (ESMA Suspension and Restoration Information System – SARIS) to ensure effective co-operation between competent authorities.
22. The purpose of this system will be to grant investors in Europe additional protection regardless of where they trade based on the principles of immediacy of information and of efficient publication via the ESMA website as the central data repository which shall hold the information on suspensions and removals investors may look for within the EU, in addition to the information published by the trading venues.

Once the process of designing MiFID II implementing measures reaches the Consultation Paper stage ESMA will “translate” the system specifications of that centralised multilateral functionality into im-

plementing technical standards. In addition, SARIS would need to address the publication foreseen under letters iv. and ix.

Proposal

Specification of cases in which the connection between a derivative and the underlying implies that the derivative should also be suspended or removed from trading

23. For the purpose of achieving the objective of the suspension or removal, ESMA considers that a derivative whose price or value is completely dependent on the prevailing price or value of the financial instrument that has been suspended or removed from trading as its sole underlying, should also be suspended or removed as a consequence of the suspension or removal of the relevant instrument, making no difference as to what the original objective of the suspension or removal of the underlying financial instrument was.
24. ESMA realises, however, that financial instruments can be traded or seen as a part of an index or basket of financial instruments. ESMA considers the establishment of a method of calculating the correlation between the development of the price or value of a particular financial instrument and the development of the value of the index or basket of financial instruments as a whole, that takes into account all the issues of (real-time) valuation and changing weights of constituents, to be too complex for the sake of this empowerment. As a consequence, ESMA considers the best approach would be to exclude derivatives that relate to indices, baskets or other tradable financial instruments that consist of multiple price inputs when considering which derivatives should be suspended or removed as a consequence of the suspension or removal of a financial instrument.
25. It should, however, be noted that the suspensions/removals regime is without prejudice to the fair and orderly trading obligations of a trading venue, and so even in cases where a trading venue is not required by its competent authority to suspend a derivative, it is subject to an overarching responsibility to consider whether it is offering particular contracts that can continue to trade in an orderly way.

Q461: Do you agree with the specifications outlined above for the suspension or removal from trading of derivatives which are related to financial instruments that are suspended or removed?

Q462: Do you think that any derivatives with indices or a basket of financial instruments as an underlying the pricing of which depends on multiple price inputs should be suspended if one or more of the instruments composing the index or the basket are suspended on the basis that they are sufficiently related? If so, what methodology would you propose for determining whether they are “sufficiently related”? Please explain.

Format and timing of communications

26. For the purpose of this Discussion Paper ESMA then still needs to look at the timing and format of communications of suspensions, removals and the lifting of suspensions by trading venue operators to competent authorities and the publications by trading venue operators of such suspensions, removals and lifting of suspensions (letters i, ii, vi and vii. of the table under paragraph 19.).

27. Regarding the timing, ESMA considers that the communication to a competent authority as well as the publication of a suspension, removal or lifting of a suspension shall be effected immediately after taking the decision.
28. Regarding the format, ESMA considers that the publication of the suspension, removal or lifting of a suspension shall adhere to the general principles of being easily identifiable on the webpage of the trading venue operator and of being drafted in clear, precise and unambiguous language.
29. Regarding the format of the communications to the competent authorities, ESMA may consider it useful to request the submission of information in a format which ensures a quick and seamless processing by competent authorities so they can easily take their decision in respect of the suspension, removal or lifting of suspensions in respect of the derivatives instruments and effect follow-up communications and publications.

Q463: Do you agree with the principles outlined above for the timing and format of communications and publications to be effected by trading venue operators?

7. Commodity derivatives

7.1. Ancillary Activity

Background/Mandate/Empowerment

1. The review of MiFID aims to prevent market abuse, systemic risk and to achieve a level playing field. In line with these goals the revised Article 2 MiFID II is driven by the intention to provide for a more narrow interpretation of allowed exempt activities thereby capturing within the scope of MiFID II a range of firms previously excluded¹⁷⁸ and addressing any competitive distortions that arise under the existing exemptions for commodity firms under Articles 2(1)(i) and 2(1)(k) of MiFID I.
2. Under the current regulatory regime Article 2(1)(i) of MiFID I exempts persons dealing on own account in financial instruments, or providing investment services in commodity derivatives to the clients of their main business, provided this is an ancillary activity to their main business, when considered on a group basis, and that the main business is not the provision of investment services within the meaning of MiFID or banking services under Directive 2000/12/EC. This exemption and the one currently provided by Article 2(1)(k) of MiFID I are intended to cover commercial users and producers of commodities, under the assumption that commercial firms and specialist commodity firms do not pose systemic risks comparable to traditional financial institutions or interact with investors¹⁷⁹.
3. The exemptions currently available are effectively carried over under Article 2(1)(j) of MiFID II in similar but not identical terms. However, the exemption that is currently available under Article 2(1)(k) of MiFID I will cease to exist thereby additional focus will be placed on those exemptions that are carried over. Article 2(1)(j) sets forth that MiFID II shall not apply to persons:
 - i. dealing on own account, including market makers, in commodity derivatives, emission allowances or derivatives thereof, excluding persons who deal on own account when executing client orders; or
 - ii. providing investment services, other than dealing on own account, in commodity derivatives or emission allowances or derivatives thereof to the customers or suppliers of their main business.
4. In both cases the exemption is subject to the condition that the activity is individually and on an aggregate basis an ancillary activity to the persons' main business, when considered on a group basis, and that main business is not the provision of investment services within the meaning of MiFID II or banking activities under Directive 2013/36/EU, or acting as a market maker in relation to commodity derivatives, and the persons do not apply a high frequency algorithmic trading technique. Furthermore, the exemption is subject to the condition that the persons concerned notify annually the relevant NCA that they make use of this exemption and upon request report to the NCA the basis on which they consider that their activity is ancillary to their main business.
5. Article 2(4) MiFID II requires ESMA to develop draft RTS in respect of exemption 2(1)(j) to specify the criteria for establishing when an activity is to be considered as ancillary to the main business on a

¹⁷⁸EC Public Consultation on the Review of the Markets in Financial Instruments Directive (MiFID), 8 December 2010, p. 40.

¹⁷⁹ Ibid.

group level. When specifying the criteria ESMA will have to consider, the elements mentioned in Article 2(4) of MiFID II. Recital 20 sets forth that the criteria specified by ESMA should ensure that non-financial firms dealing in financial instruments in a disproportionate manner compared with the level of investment in the main business are covered by the scope of MiFID II. The purpose of this DP is to explore how the elements may best be taken into account when determining criteria for establishing when an activity is considered to be ancillary.

Article 2(4), MiFID II

4. ESMA shall develop draft regulatory technical standards to specify, for the purposes of point (j) of paragraph 1 the criteria for establishing when an activity is to be considered to be ancillary to the main business at a group level:

Those criteria shall take into account at least the following elements:

(a) the need for ancillary activities to constitute a minority of activities at a group level;

(b) the size of their trading activity compared to the overall market trading activity in that asset class

In determining the extent to which ancillary activities constitute a minority of activities at a group level ESMA may determine that the capital employed for carrying out the ancillary activity relative to the capital employed for carrying out the main business is to be considered. However, that factor shall in no case be sufficient to demonstrate that the activity is ancillary to the main business of the group

The activities referred to in this paragraph shall be considered at a group level.

The elements referred to in the second subparagraph shall exclude:

(a) intra-group transactions as referred to in Article 3 of Regulation (EU) No 648/2012 that serve group-wide liquidity or risk management purposes;

(b) transactions in derivatives which are objectively measurable as reducing risks directly related to the commercial activity or treasury financing activity;

(c) transactions in commodity derivatives and emission allowances entered into to fulfil obligations to provide liquidity on a trading venue, where such obligations are required by regulatory authorities in accordance with Union law or with national laws, regulations and administrative provisions, or by trading venues.

Analysis and proposal

Combination of exemptions

6. Article 2 of MiFID II provides for additional exemptions. In accordance with paragraphs (e) and (n) of Article 2(1) MiFID II operators covered by the EU emission trading scheme and transmission system operators may be exempt from the scope of MiFID II. In addition, paragraphs (d) and (e) of Article 3(1) MiFID II provide for optional exemptions at the national level in relation to joint venture companies jointly held by local energy utilities or operators covered by the EU emission trading scheme. Moreover, Article 2(1)(d) MiFID II allows for an exemption for persons who deal on own account in financial instruments other than commodity derivatives, emission allowances or derivatives

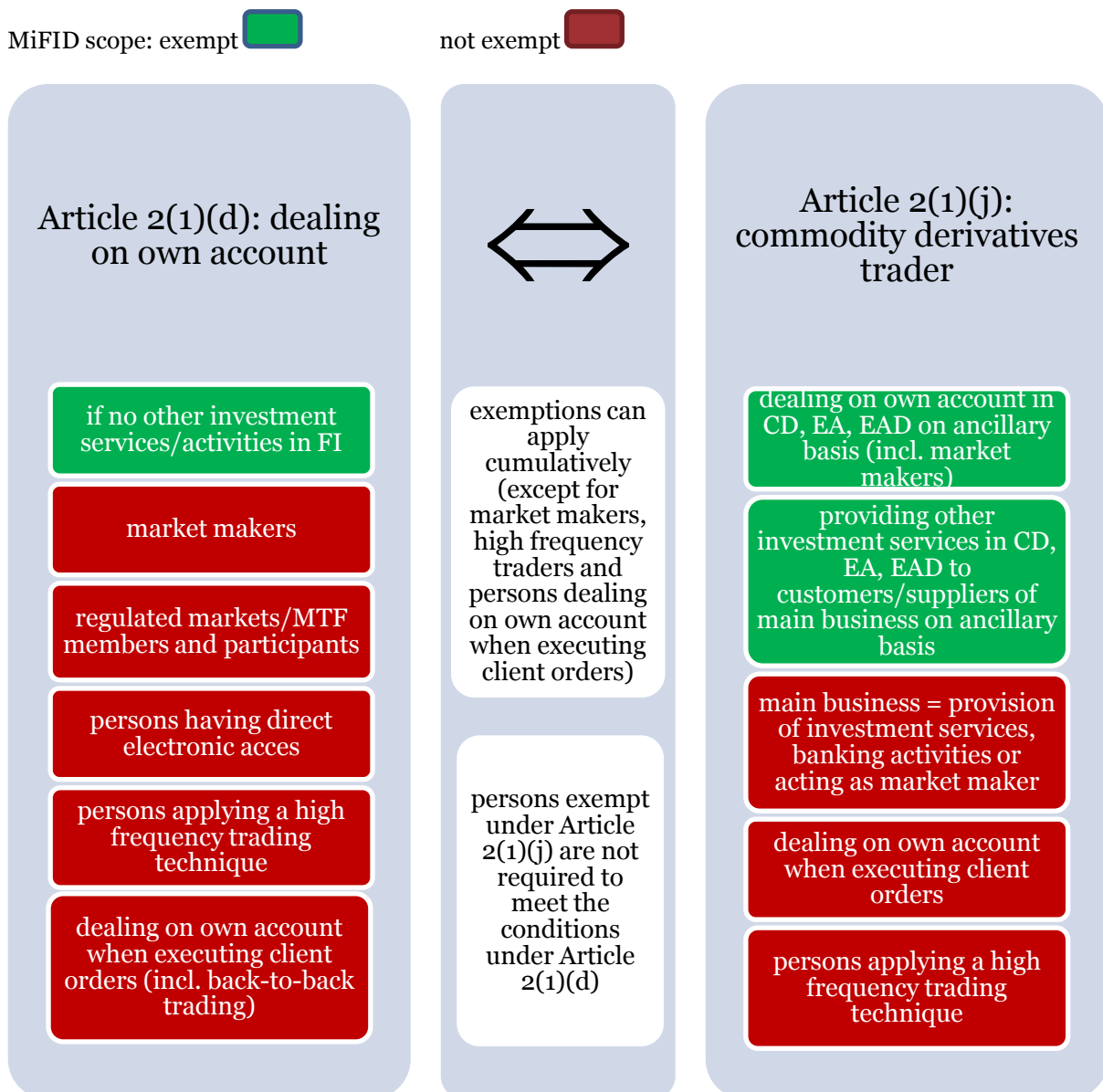
thereof if they do not provide any other investment services or perform any other investment activities in such instruments. This exemption is, however, not available for market makers, members or participants of RM or an MTF, persons having direct electronic access to a trading venue, persons applying a high frequency algorithmic trading technique or persons dealing on own account when executing client orders. The following table provides a brief overview on the content of the exemptions under Article 2(1)(d) and (j) MiFID II:

Article 2(1)(d): Dealing on own account	Article 2(1)(j): Commodity derivatives trader
<ul style="list-style-type: none"> • FIs (other than CDs, EAs, EADs) • no other investment services or investment activities in FIs • not available for: <ul style="list-style-type: none"> • <i>market makers</i> • <i>members/participants of regulated markets or MTFs</i> • <i>persons having direct electronic access to a trading venue</i> • <i>persons applying a high frequency algorithmic trading technique</i> • <i>persons dealing on own account when executing client orders</i> 	<ul style="list-style-type: none"> • CDs, EAs, EADs • dealing on own account (incl. market makers and excl. dealing on own account when executing client orders) or • providing other investment services to customers or suppliers of main business • provided that: <ul style="list-style-type: none"> • <i>activity = ancillary to main business</i> • <i>main business ≠ provision of investment services or banking activities or acting as market maker in relation to CDs</i> • <i>no application of a high frequency algorithmic trading technique</i> • <i>annual notification of use of exemption</i>

FI=financial instrument; CD=commodity derivative; EA=emission allowance; EAD=emission allowance derivative

7. Recital 22 clarifies that exemptions may apply cumulatively. Therefore, in principle, the exemption under Article 2(1)(j) MiFID II can be used in conjunction with the exemption under Article 2(1)(d) MiFID II. However, Recital 23 states that market makers in financial instruments, other than market makers in commodity derivatives, emission allowances or derivatives thereof provided that their market making activity is ancillary to their main business considered on a group basis and provided that they do not apply a high-frequency algorithmic trading technique should be covered by the scope of MiFID II and should not benefit from any exemption. Persons dealing on own account when executing client orders or applying a high frequency algorithmic trading technique should also be covered by the scope of MiFID II and should not benefit from any exemption. Recital 24 clarifies that dealing on own account when executing client orders should include firms executing orders from different clients by matching them on a matched principal basis (back to back trading). However, Recital 25 states that the execution of orders in financial instruments as an ancillary activity between two persons whose main business, on a group basis, is neither the provision of investment services nor


banking activities should not be considered as dealing on own account when executing client orders. Therefore, ESMA is of the view that the execution of orders in financial instruments between two non-financials directly and without any further intermediation by third parties as ancillary activity is not covered by the term ‘dealing on own account when executing client orders’ and would therefore not prevent the persons concerned from using the exemptions under paragraphs (d) and (j) of Article 2(1) MiFID II. The following chart shows the relationship between the two exemptions available under paragraphs (d) and (j) of Article 2(1) MiFID II:




8. Furthermore, Article 1(5) MiFID II sets forth that the organisational requirements for investment firms engaging in algorithmic trading under Articles 17(1) and (6) MiFID II shall apply to members or participants of RMs and MTFs who are not required to be authorised under Article 2(1)(j). Therefore, persons exempt under Article 2(1)(j) MiFID II will have to comply with those organisational requirements if they are a member or participant of a RM or MTF. Organisational requirements for algorithmic trading under Article 17 MiFID II include, *inter alia*, effective systems and risk controls suit-

able to the business including business continuity arrangements, obligations to provide liquidity when pursuing market-making strategies, effective controls on clients' suitability when providing direct electronic access, effective controls to ensure that clearing services are only applied to suitable persons when acting as a general clearing member and record-keeping obligations. Moreover, Article 1(6) MiFID II sets forth that the position limits and reporting regime under Articles 57 and 58 MiFID II shall apply to persons exempt under Article 2 MiFID II. Hence, position limits will always be applicable. However, in accordance with Article 57(1) MiFID II, position limits shall not apply to positions held by or on behalf of a non-financial entity if those positions are objectively measurable as reducing risks directly relating to the commercial activity of that non-financial entity.

9. Physical commodity derivatives traders can combine the exemptions available under Articles 2(1)(d) and 2(1)(j) MiFID II if they meet the requirements set forth by those provisions. However, they are not able to make use of the exemption for dealing on own account in financial instruments other than commodity derivatives, emission allowances and derivatives thereof under Article 2(1)(d) MiFID II if they are either a member or participant of a RM or MTF or if they provide direct electronic access. Furthermore, if they are a member or participant of a RM or MTF and are exempt under Article 2(1)(j) MiFID II, they may have to comply with the organisational requirements for algorithmic trading set forth in Articles 17(1) and (6) MiFID II. Position limits and reporting obligations will always be applicable, even if physical commodity derivatives traders are exempt under Articles 2(1)(d) and 2(1)(j) MiFID II. However, positions held by or on behalf of non-financials which are objectively measurable as reducing risks directly relating to commercial activity will not count towards the limits. In accordance with Article 1(3) MiFIR, the trading and clearing obligations apply to all financial counterparties as defined in Article 2(8) EMIR and to all non-financial counterparties falling under Article 10(1)(b) EMIR. The following chart provides an overview on the potential use of exemptions for physical commodity derivatives traders:

MiFID scope: exempt 

not exempt 

Physical commodity derivatives trader

could be exempt under Article 2(1)(d) - dealing on own account

could be exempt under Article 2(1)(j) - commodity derivatives trader

not if providing any other investment services than dealing on own account in FI or if main business is provision of investment services, banking activities or acting as market maker in relation to CD when dealing in CD, EA, EAD on ancillary basis

not if dealing on own account when executing client orders (execution of orders in FI as ancillary activity directly between two persons whose main business is not provision of financial services or banking activities is not covered by this term)

not if applying a high frequency algorithmic trading technique

if member/participant on regulated market/MTF: not exempt under Article 2(1)(d) and, if exempt under Article 2(1)(j), organisational requirements for algorithmic trading are applicable

if direct electronic access: not exempt under Article 2(1)(d)

if exempt: position limits and reporting are applicable (positions held by or on behalf of non-financials reducing their commercial risks are exempt from limits)

10. The exemptions under Article 2 MiFID II should be viewed in a broader context as they will interact with other legislation and may have a significant impact on firms that currently use the exemptions under MiFID.
11. If firms cannot make use of an exemption under MiFID II, capital requirements under the new banking regulatory framework will apply to them. This new framework consists of CRR and CRD IV, repealing Directives 2006/48/EC and 2006/49/EC. While CRD IV is addressed to NCAs and includes, *inter alia*, qualitative provisions on the Internal Capital Adequacy Assessment Process (ICAAP) and the Supervisory Review and Evaluation Process (SREP), the new CRR imposes quantitative requirements and disclosure obligations pursuant to Basel III recommendations on credit institutions and investment firms, including own funds definition, minimum own funds requirements and liquidity requirements. However, under Article 498 (1) of CRR some commodity dealers falling within the scope of MiFID II are transitionally exempt from the CRR's provisions on own funds requirements until 31 December 2017 at the latest if their main business consists exclusively of providing investment services or activities relating to commodity derivatives.
12. Moreover, investment firms falling within the scope of MiFID II will be considered to be financial counterparties rather than non-financial counterparties under Article 2(8) EMIR. Therefore, they will not be able to benefit from the clearing thresholds or the hedging exemption available to the latter under Article 10 EMIR. An additional consequence of being classified as a financial counterparty will be that the trading obligation (i.e. the obligation to trade derivatives which are subject to the clearing obligation and sufficiently liquid on certain trading venues only, cf. Article 28 MiFIR) would apply in full without being subject to a threshold.
13. For firms that will fall under MiFID II it is also worth keeping in mind that the hedging exemption in relation to the position limits regime will only apply to non-financial entities as Article 57(1) MiFID II states that position limits shall not apply to positions held by or on behalf of a non-financial entity which are objectively measurable as reducing risks directly related to the commercial activity of that non-financial entity. Furthermore, derivative transactions of non-financial counterparties which are objectively measurable as reducing risks directly related to commercial activity or treasury financing activity of the non-financial counterparty or of the group are not subject to pre-trade transparency requirements in accordance with Article 8(1) MiFIR.
14. In relation to derivative contracts mentioned in Annex I Section C paragraph (6) MiFID II relating to coal or oil that are traded on an OTF and must be physically settled the clearing obligation set out in Article 4 EMIR and the risk mitigation techniques set out in Article 11(3) EMIR shall not apply for a transitional period of six years if entered into by non-financial counterparties that meet the conditions of Article 10(1) EMIR or that shall be authorised for the first time as an investment firm under MiFID II (cf. Article 95 of MiFID II). Furthermore, such derivative contracts on coal or oil shall not be considered as OTC derivative contracts for the purpose of the clearing threshold set out in Article 10 EMIR during the transitional period.

Elements to be considered

15. Article 2(4) MiFID II requires ESMA to take into account at least the following elements:
 - i. the need for ancillary activities to constitute a minority of activities at a group level; and
 - ii. the size of their trading activity compared to the overall market trading activity in that asset class.

16. Article 2(4) of MiFID II further stipulates that in determining the extent to which ancillary activities constitute a minority of activities at a group level, ESMA may determine that the capital employed for carrying out the ancillary activity relative to the capital employed for carrying out the main business is to be considered. However, that factor shall in no case be sufficient to demonstrate that the activity is ancillary to the main business of the group. The elements mentioned above shall exclude intra-group transactions as referred to in Article 3 EMIR that serve group-wide liquidity and risk management purposes, transactions in derivatives being objectively measurable as reducing risks directly related to the commercial activity or treasury financing activity and transactions in commodity derivatives and emission allowances entered into to fulfil obligations to provide liquidity on a trading venue where required by regulatory authorities or trading venues.
17. In summary, ESMA envisages that the procedure for determining whether firms fall within the scope of MiFID II under Article 2(1)(j) is as follows: if a firm exceeds the thresholds set in the ancillary activity test (discussed in paragraph 23 onwards), it will fall within the scope of MiFID II. If the firm does not meet the ancillary activity threshold but meets the threshold set in the trading activity test (discussed in paragraph 32 onwards), it will fall within the scope of MiFID II.

Minority of activities

Analysis and proposal

18. Ancillary activities must constitute a minority of activities at group level. In order to define the minority of activities ESMA may consider the capital employed for carrying out the ancillary activity relative to the capital employed for carrying out the main business. This factor is not sufficient to demonstrate that the activity is ancillary to the main business of the group. The ancillary activity can only be considered as constituting a minority of activities if it accounts for less than maximum 50% of the main business of the group.
19. For the definition of the term 'group' Article 4(1)(34) MiFID II refers to the definition of Article 2(11) of Directive 2013/34/EU on the annual financial statements, consolidated financial statements and related reports of certain types of undertakings (Accounting Directive). According to this definition 'group' means a parent undertaking and all its subsidiary undertakings. Articles 4(1)(32) and (33), MiFID II also refer to the Accounting Directive in relation to the terms 'parent undertaking' and 'subsidiary'. Article 2(9) Accounting Directive sets forth that a parent undertaking is an undertaking which controls one or more subsidiary undertakings. Article 2(10) of Accounting Directive stipulates that a subsidiary undertaking is an undertaking controlled by a parent undertaking, including any subsidiary undertaking of an ultimate parent undertaking. Article 22 of the Accounting Directive (to which Articles 4(1)(32) and (33) MiFID II also refer) sets forth the requirement to prepare consolidated financial statements and contains further elements characterising the relationship between a parent undertaking and a subsidiary undertaking which include the following points:
 - i. the parent undertaking has a majority of shareholders' or members' voting rights in a subsidiary undertaking;
 - ii. the parent undertaking has the right to appoint or remove a majority of the members of the administrative, management or supervisory body of a subsidiary undertaking and is at the same time a shareholder in or member of that subsidiary undertaking;

- iii. the parent undertaking has the right to exercise a dominant influence over a subsidiary undertaking of which it is a shareholder or member, pursuant to a contract entered into with that subsidiary undertaking or pursuant to a provision in its memorandum or articles of association;
 - iv. the parent undertaking is a shareholder or member of a subsidiary undertaking and:
 - a) a majority of the members of the administrative, management or supervisory bodies of the subsidiary undertaking who have held office during the financial year, during the preceding financial year and up to the time when the consolidated financial statements are drawn up, have been appointed solely as a result of the exercise of its voting rights (except where a third party has a majority of the shareholders' or members' voting rights or has the right to appoint or remove a majority of the members of the administrative, management or supervisory body or has the right to exercise a dominant influence), or
 - b) controls alone, pursuant to an agreement with other shareholders in or members of the subsidiary undertaking, a majority of shareholders' or members' voting rights in the subsidiary undertaking.
 - v. the parent undertaking has the power to exercise, or actually exercises, dominant influence or control over the subsidiary undertaking; or,
 - vi. the parent undertaking and the subsidiary undertaking are managed on a unified basis by the parent undertaking
20. On this basis ESMA considers that the term 'group' comprises the parent undertaking and all its subsidiary undertakings. Subsidiary undertakings are those undertakings that are controlled by a parent undertaking under consideration of the above mentioned elements of control. This definition entails that non-EU entities of a group are also covered by the term, regardless of whether the group is headquartered inside or outside the EU. This understanding would imply that non-EU activities of a group are also taken into account when assessing whether the activity is ancillary to the main business of the group.
21. Alternatively, only the activities of a group undertaken in the EU could be taken into account when considering whether the activity is ancillary to the main business of the group. If only the EU-activities of a group are taken into account for the assessment of the first criterion mentioned above, then this approach should also be mirrored in relation to the second criterion for reasons of consistency. This would imply that the size of the trading activity of the concerned person should only be compared to the size of the overall market trading activity in the EU.
22. In ESMA's view the first alternative that includes non-EU activities in the assessment of the first criterion is the preferable approach as it would minimise the potential for creating loopholes when defining the scope of the exemption.

Q464: Do you see any difficulties in defining the term ‘group’ as proposed above?

Q465: What are the advantages and disadvantages of the two alternative approaches mentioned above (taking into account non-EU activities versus taking into account only EU activities of a group)? Please provide reasons for your answer.

Q466: What are the main challenges in relation to both approaches and how could they be addressed?

23. In order to assess whether ancillary activities constitute a minority of activities at group level it is necessary to define how to exclude the physical hedging activities discussed below from paragraph 49 onwards and what is considered as ancillary activity and as main activity at group level. ESMA suggests the following approach:

24. For the first step, the sum of the capital employed for intra-group transactions, transactions in derivatives reducing commercial and treasury financing risks, and transactions entered into to fulfil obligations to provide liquidity will be deducted from the capital employed for the overall activity at group level:

Capital for overall activity at group level (= factor a)

- Capital for intra-group transactions (= factor b)
- Capital for transactions in derivatives reducing commercial/treasury financing risks (= factor c)
- Capital for transactions in commodity derivatives and emission allowances to fulfil liquidity obligations (= factor d)

= Capital for remaining activity (= factor e)

25. Secondly, the ancillary activity has to be defined. In this regard it should be kept in mind that Article 2(1)(j) MiFID II clarifies that the ancillary activity must be ancillary on an individual and on an aggregate basis to the main business at group level. By definition of Article 2(1)(j) MiFID II, the ancillary activity can only be the activity relating to dealing on own account and to the provision of other investment services to customers or suppliers of the main business in commodity derivatives, emission allowances or derivatives thereof. Therefore, the ancillary activity is the sum of the capital employed for dealing on own account (excluding the execution of client orders) and the capital employed for the provision of other investment services to customers or suppliers of the main business in commodity derivatives, emission allowances and derivatives thereof minus the sum of the capital employed for the permitted exemptions – intra-group transactions, transactions in derivatives reducing commercial and treasury financing risks, and transactions entered into to fulfil obligations to provide liquidity (factors b, c and d noted above). As the ancillary activity must be ancillary on an individual and on an aggregate basis all three factors - the capital for dealing on own account, the capital for the provision of other investment services to customers or suppliers and the sum of these two factors - must account for less than maximum 50% of the main activity at group level.

Capital for dealing on own account in commodity derivatives, emission allowances and derivatives thereof (= factor f)

+ Capital for provision of other investment services in commodity derivatives, emission

allowances and derivatives thereof to customers and suppliers (= factor g)

= Capital for sum of ancillary activities (factor h)

26. Each of the three factors, f, g and h, must account for less than maximum 50% of the main activity at group level.

27. The next step is to define what constitutes the main activity at group level. This would be done by deducting the capital employed for the sum of ancillary activities from the capital employed for the remaining activity referred to in paragraph 24.

Capital for remaining activity (factor e)

- Capital for sum of ancillary activities (factor h)

= Capital for main activity at group level (= factor i)

28. For the sake of clarity ESMA notes that the sum of the capital for the main activity (factor i) and the capital for the ancillary activities (factor h) and the capital for intra-group transactions, transactions reducing commercial risks and transactions relating to liquidity obligations (factors b, c and d) must equal the capital for the overall activity at group level (factor a).

29. Finally, it has to be assessed whether the ancillary activity constitutes a minority of activities at group level. This will only be the case when the ancillary activities individually and on an aggregate basis account for less than maximum 50%. Therefore, all of the following formulas under a), b) and c) must be fulfilled:

Main activity (i) = remaining activity (e) – sum of ancillary activities (h)

This could also be expressed in the following way: $i = (a - b - c - d) - (f + g)$

a)
$$\frac{\text{Ancillary activity (f)}}{\text{Main activity (i)}} < \text{maximum 50\%}$$

$$\frac{f}{(a - b - c - d) - (f + g)} < \text{maximum 50\%}$$

b)
$$\frac{\text{Ancillary activity (g)}}{\text{Main activity (i)}} < \text{maximum 50\%}$$

$$\frac{g}{(a - b - c - d) - (f + g)} < \text{maximum 50\%}$$

c)
$$\frac{\text{Sum of ancillary activities (h)}}{\text{Main activity (i)}} < \text{maximum 50\%}$$

$$\frac{(f + g)}{(a - b - c - d) - (f + g)} < \text{maximum 50\%}$$

30. The term ‘capital’ may be interpreted in different ways. The capital measure could be regulatory, economic or accounting capital. Due to the lack of a clear definition, economic capital will be difficult to measure. ESMA believes that the capital measure should be calculated by using figures that firms already calculate, rather than requiring new calculations. Working capital, defined as the cost to carry out a business, has been suggested as a more appropriate capital measure. However, this definition of working capital seems to be a revenue rather than a capital measure and difficulties may arise in identifying it in the absence of an accounting convention. The income statement (profit and loss statement) has been identified as a possible proxy for measuring capital. However, it is unclear which items (lines) of the income statement would be relevant for the calculation.

31. ESMA considers that using a regulatory capital measure would be inappropriate as a firm seeking to rely on the exemptions under Article 2(1)(j) MiFID II may not be regulated and so, may not perform a regulatory capital calculation. Therefore, ESMA is of the view that an accounting capital measure should be used and, where this measure is not available, an economic capital measure.

Q467: Do you consider there are any difficulties concerning the suggested approach for assessing whether the ancillary activities constitute a minority of activities at group level? Do you consider that the proposed calculations appropriately factor in activity which is subject to the permitted exemptions under Article 2(4) MiFID II? If no, please explain why and provide an alternative proposal.

Q468: Are there other approaches for assessing whether the ancillary activities constitute a minority of activities at group level that you would like to suggest? Please provide details and reasons.

Q469: How should “minority of activities” be defined? Should minority be less than 50% or less (50 - x)%? Please provide reasons.

Q470: Do you have a view on whether economic or accounting capital should be used in order to define the elements triggering the exemption from authorisation under MiFID II, available under Article 2(1)(j)? Please provide reasons.

Q471: If economic capital were to be used as a measure, what do you understand to be encompassed by this term?

Size of trading activity

Analysis and proposal

32. Furthermore, the size of the firm’s trading activity has to be compared with the size of the overall market trading activity. In this regard, the objective should be to capture the size of the firm’s trading activity in the EU rather than all trading activity, noting that there may be practical difficulties in doing this. Again it is necessary to define how to exclude the physical hedging activities discussed below from paragraph 49 onwards and how to define the size of the trading activity and the size of the overall market trading activity.

33. The size of the trading activity could be defined by deducting the sum of the volume of the transactions that the person enters into in order to hedge the physical activities from the volume of the overall trading activity of the person:

Volume of the overall trading activity at group level (= factor u)

- Volume of intra-group transactions (= factor v)
- Volume of transactions in derivatives reducing commercial and treasury financing risks (= factor w)
- Volume of transactions in commodity derivatives and emission allowances entered into to fulfil liquidity obligations (= factor x)

= Size of the trading activity (= factor y)

34. The size of the trading activity must then be compared with the size of the overall market trading activity in that asset class. The overall market trading activity could be expressed as factor z. The denominator for the comparison would then be as follows:

$$\frac{u - (v + w + x)}{z}$$

35. When defining the size of the trading activity it should be noted that derivatives on wholesale energy products defined under Article 2(4) REMIT are not financial instruments in accordance with Article 4(1)(15) and Annex I C 6 MiFID II provided that they are traded on an OTF and “*must be physically settled*”. Furthermore, it has to be determined how the volume of the overall trading activity of the company at group level and the volume of the transactions entered into in order to hedge physical activities are defined. The trading volume could be measured as number of contracts or nominal value of contracts bought and sold during a specified period of time. ESMA seeks views on this issue.

36. It is unclear on what basis the size of the trading activity should be determined where a company is simultaneously active in different markets (e.g. in electricity and gas markets). ESMA is of the view that where an entity operates simultaneously in different markets, and is captured within one market it will fall under the scope of MiFID II. ESMA suggests that the size of the trading activity could be divided into broad asset classes as follows:

- i. Metals
- ii. Oil and oil products
- iii. Coal
- iv. Emissions
- v. Gas
- vi. Power
- vii. Agricultural products
- viii. Freight

37. The size of the trading activity could then be determined by comparison of the size of activity against other market participants within the same asset class on a European or global level, reflecting the characteristics of particular markets. Where an entity passes the threshold for one asset class, it would be subject to MiFID for all its activities. This is analogous to the application of EMIR whereby when a non-financial firm passes the clearing threshold set for one asset class, it is subject to the clearing obligation for all asset classes.
38. Furthermore, it has to be clarified how the size of the overall market trading activity can be measured. It is unclear on what basis persons could determine the size of the overall trading activity in the different asset classes for the assessment regarding whether they are able to benefit from the exemption. For some asset classes it may prove to be difficult to establish the volume of the overall market trading activity.
39. The use of TRs might be a potential way for persons wishing to benefit from the exemption to obtain the relevant data. Article 9 EMIR sets forth that counterparties and CCPs shall ensure that details of any derivative contract they have concluded and the details of any modification or termination of the contract are reported to a TR. The details shall be reported no later than the working day following the conclusion, modification or termination of the contract. Counterparties shall ensure that the details of their derivative contracts are reported without duplication and they shall keep a record of any derivative contract they have concluded and any modification for at least five years following the termination of the contract. The reports shall specify at least the parties to the derivative contract and, where different, the beneficiary of the rights and obligations arising from it and the main characteristics of the derivative contracts, including their type, underlying maturity, notional value, price and settlement date. The reporting obligation has been further specified by the Commission delegated regulation (EU) No 148/2013 which contains details regarding information on the counterparties to a contract (Annex 1 of that regulation) and details pertaining to the derivative contract concluded between the two counterparties (Annex 2 of that regulation). Moreover, the Commission implementing regulation (EU) No 1247/2012 contains standards on the format of trade reports to TRs (see Annex to that regulation).
40. Details on the counterparties include, inter alia:
 - i. ID, name, domicile, corporate sector and nature (financial/non-financial) of the counterparty;
 - ii. ID of the other counterparty;
 - iii. ID of the beneficiary (i.e. the party subject to the rights and obligations arising from the contract);
 - iv. Trading capacity (identifies whether the reporting counterparty has concluded the contract as principal on own account - on own behalf or on behalf of a client – or as agent for the account of and on behalf of a client);
 - v. Counterparty side (identifies whether the contract was a buy or sell);
 - vi. Contract with non-EEA counterparty (indicates whether the other counterparty is domiciled outside the EEA); and,
 - vii. Directly linked to commercial activity or treasury financing (information on whether the contract is objectively measurable as directly linked to the reporting counterparty's commercial or treas-

ury financing activity as referred to in Article 10(3) EMIR – field is left blank in case the reporting counterparty is a financial counterparty).

41. Details on the derivative contracts include, inter alia:

- i. Product ID;
- ii. Underlying (underlying shall be identified by using a unique identifier for the underlying);
- iii. Trade ID;
- iv. Notional amount (original value of the contract);
- v. Price multiplier (number of units, e.g. number of derivatives represented by one contract);
- vi. Quantity (number of contracts included in the report, where more than one derivative contract is reported);
- vii. Delivery type (indicates whether the contract is settled physically or in cash);
- viii. Maturity date (original date of expiry of the reported contract);
- ix. Termination date (if different from maturity date);
- x. Date of settlement (of the underlying);
- xi. Commodity base: Agricultural, Energy, Freights, Metals, Index, Environmental or Exotic; and,
- xii. Commodity details: Agricultural (Grains oilseeds, Dairy, Livestock, Forestry, Softs), Energy (Oil, Natural gas, Coal, Electricity, Inter-energy), Metals (Precious, Non-precious) or Environmental (Weather, Emissions).

42. In relation to energy (information to be reported according to REMIT):

- i. Delivery point or zone;
- ii. Interconnection point;
- iii. Load type;
- iv. Delivery start date and time;
- v. Delivery end date and time;
- vi. Contract capacity (quantity per delivery time interval);
- vii. Quantity unit (daily or hourly quantity in MWh or kWh/d which corresponds to the underlying commodity); and,
- viii. Price/time interval quantities (if applicable, price per time interval quantities).

43. In accordance with EMIR implementing regulation No 1247/2012, there is also a reporting field showing whether the transaction qualifies as an intra-group transaction.
44. In summary TR data contains information on the quantity (i.e. the number of contracts in the report), the notional amount of the contract (i.e. the original value of the contract) and on the purpose (i.e. whether the contract is objectively measurable as directly linked to the reporting counterparty's commercial or treasury financing activity or whether it is for intra-group transactions). Furthermore, trade reports contain details on the underlying commodities. However, TRs do not collect data on transactions that have been entered into in order to fulfil liquidity obligations established by authorities or trading venues.
45. The TR data may be used for either determining the denominator of the size of trading activity equation only or for identifying both the numerator and the denominator. Accordingly, one option might be that persons wishing to benefit from the exemption could calculate the size of their trading activity on their own and obtain data on the overall market trading activity from the TR. Alternatively, persons may receive data on their own trading activity and on the overall trading activity from the TRs.
46. The advantage of using existing data of TRs is that persons wishing to assess whether they are able to benefit from the exemption under Article 2(1)(j) MiFID II need only to perform calculations in relation to their own trading activity or do not have to calculate their trading activity and the overall market trading activity at all depending on which of the above mentioned approaches is adopted. A further advantage of this approach is that the data is verified by a third party, namely the TR.
47. Pursuant to Article 81(1) EMIR a TR shall regularly, and in an easily accessible way, publish aggregate positions by class of derivatives on the contracts reported to it.
48. When comparing the size of the trading activity with the size of the overall market activity ESMA will have to determine whether the activity can be considered as being ancillary to the main business and, hence, whether the entity should be exempt from the scope of MiFID II. When defining a threshold for determining whether the person's trading activity is high in relation to the overall market trading activity, Recital 20 should be kept in mind. It sets forth that the criteria specified by ESMA should ensure that non-financial firms dealing in financial instruments in a disproportionate manner compared with the level of investment in the main business are covered by the scope of MiFID II. ESMA aims to capture entities that trade to a significant extent in comparison with authorised firms in a specific asset class. In this regard, as discussed above, REMIT-products that are traded on an OTF and must be physically settled will not be considered as financial instruments. Moreover, hedging activities of firms will not be considered. Therefore, ESMA aims to capture firms that have a relatively high level of trading activity in comparison to authorised firms when considering the non-hedging activities. ESMA aims to set a threshold at a relatively low level which needs to be further defined. Firms that reach this threshold would also be captured by MiFID II, even if they do not meet the first threshold (ancillary activity constitutes a minority threshold).

- Q472:** Do you agree with the above assessment that the data available in the TRs will enable entities to perform the necessary calculations?
- Q473:** What difficulties do you consider entities may encounter in obtaining the information that is necessary to define the size of their own trading activity and the size of the overall market trading activity from TRs? How could the identified difficulties be addressed?
- Q474:** What do you consider to be the difficulties in defining the volume of the transactions entered into to fulfil liquidity obligations?
- Q475:** How should the volume of the overall trading activity of the firm at group level and the volume of the transactions entered into in order to hedge physical activities be measured? (Number of contracts or nominal value? Period of time to be considered?)
- Q476:** Do you agree with the level of granularity of asset classes suggested in order to provide for relative comparison between market participants?
- Q477:** What difficulties could there be regarding the aggregation of TR data in order to obtain information on the size of the overall market trading activity? How could these difficulties be addressed?
- Q478:** How should ESMA set the threshold above which persons fall within MiFID II's scope? At what percentage should the threshold be set? Please provide reasons for your response.
- Q479:** Are there other approaches for determining the size of the trading activity that you would like to suggest?
- Q480:** Are there other elements apart from the need for ancillary activities to constitute a minority of activities and the comparison between the size of the trading activity and size of the overall market trading activity that ESMA should take into account when defining whether an activity is ancillary to the main business?

Hedging exemptions

Analysis and proposal

49. Article 2(4) MiFID II sets three exemptions which shall be excluded from the elements mentioned above:
- i. intra-group transactions as referred to in Article 3 EMIR that serve group-wide liquidity and/or risk management purposes;
 - ii. transactions in derivatives which are objectively measurable as reducing risks directly related to the commercial activity or treasury financing activity; and,
 - iii. transactions in commodity derivatives and emission allowances entered into to fulfil obligations to provide liquidity on a trading venue, where such obligations are required by regulatory authorities in accordance with Union or national laws, regulations and administrative provisions or by trading venues.

50. Recital 21 of MiFID II stipulates that the activities that are deemed to be objectively measurable as reducing risks directly related to commercial activity or treasury financing activity and intragroup transactions should be considered in a consistent way with EMIR.
51. ESMA is of the view that Article 3 EMIR is sufficiently clear regarding what is defined as intra-group transactions serving group-wide liquidity and risk management purposes. Therefore, ESMA intends to refer to Article 3 EMIR without providing further guidance.
52. In relation to derivatives transactions objectively mitigating risks relating to the commercial or treasury financing activity ESMA considers that the wording of Article 10 of the Commission Delegated Regulation (EU) No 149/2013 supplementing EMIR, should be taken into account. According to this provision, an OTC derivative contract is objectively measurable as reducing risks directly relating to the commercial activity or treasury financing activity of the non-financial counterparty when, whether by itself or in combination with other derivative contracts, and whether directly or through closely correlated instruments, it meets one of the following conditions:
 - i. it covers risks arising from the potential change in the value of assets, services, inputs, products, commodities or liabilities that the non-financial counterparty or its group owns, produces, manufactures, processes, provides, purchases, leases, sells or incurs or reasonably anticipates owning, producing, manufacturing, processing, providing, purchasing merchandising, leasing selling or incurring in the normal course of business;
 - ii. it covers the risks arising from the potential indirect impact on the value of assets, services, inputs, products, commodities or liabilities referred to in the first bullet point, resulting from fluctuation of interest rates, inflation rates, foreign exchange rate or credit risks;
 - iii. it qualifies as a hedging contract pursuant to International Financial Reporting Standards (IFRS) adopted in accordance with Article 3 of Regulation (EC) No 1606/2002.
53. Furthermore, transactions in commodity derivatives and emission allowances entered into to fulfil obligations to provide liquidity on a trading venue shall not be taken into account, where such obligations are required by regulatory authorities in accordance with EU or national laws, regulations and administrative provisions or by trading venues. An example of such obligations is the mandatory market making requirements established by the UK energy regulator Ofgem obliging the large electricity suppliers to post the prices at which they buy and sell wholesale electricity on power trading platforms up to two years in advance and to trade at these prices. Other examples for obligations to provide liquidity could be established by rules of trading venues. However, ESMA is of the view that the obligation to provide liquidity when engaging in algorithmic trading and pursuing market making strategies under Article 17(3) MiFID II will not be considered as falling under the hedging exemption as the persons performing that activity are excluded from the exemption. Moreover, the requirement imposed by trading venues by means of position management controls under Article 57(8)(d) MiFID II to provide liquidity back into the market at an agreed price and volume on a temporary basis with the express intent of mitigating the effects of a large or dominant position will not be considered as falling into the hedging exemption as this obligation only applies on a temporary basis.

Q481: Do you see any difficulties with the interpretation of the hedging exemptions mentioned above under Article 2(4)(a) and (c) of MiFID II? How could potential difficulties be addressed?

Q482: Do you agree with ESMA's proposal to take into account Article 10 of the Commission Delegated Regulation (EU) No 149/2013 supplementing EMIR in specifying the application of the hedging exemption under Article 2(4)(b) of MiFID II? How could any potential difficulties be addressed?

Q483: Do you agree that the obligations to provide liquidity under Article 17(3) and Article 57(8)(d) of MiFID II should not be taken into account as an obligation triggering the hedging exemption mentioned above under Article 2(4)(c)?

Q484: Could you provide any other specific examples of obligations of "transactions in commodity derivatives and emission allowances entered into to fulfil obligations to provide liquidity on a trading venue" which ESMA should take into account?

Period for calculation in relation to exemption

Analysis and proposal

54. Recital 36 sets forth that, in order to benefit from the exemptions, the person concerned should comply on a continuous basis with the conditions laid down for the exemptions. In particular, if a person provides investment services or performs investment activities and is exempted from the scope of MiFID II because such services or activities are ancillary to the main business, when considered on a group basis, the person should no longer be covered by the exemption related to ancillary services where the provision of those services or activities cease to be ancillary to the main business. Furthermore, persons that intend to make use of the exemptions have to notify the NCA accordingly and then on an annual basis and, upon request, have to report to the NCA the basis on which they consider that their activity is ancillary to their main business. ESMA suggests that the NCA is the authority in the jurisdiction of the place of incorporation of the entity concerned.
55. In order to allow for market participants to plan and operate a business in a reasonable way, the calculation to determine whether a person still fulfils the requirements for the exemption may take place at specified intervals. It would be unhelpful and impractical for the operation of the business if it were possible to 'fall in and out' of regulation due to seasonal patterns of activity. Furthermore, requiring calculations in short time intervals could be prejudicial to smaller firms which are not required to mark-to-market their positions daily. A daily calculation on a rolling basis (as EMIR provides for calculating clearing thresholds) may not be appropriate since falling in and out of the scope of MiFID II has broader implications than falling under the clearing obligation. Falling within the scope of MiFID II, *inter alia*, results in authorisation requirements, being subject to the trading and clearing obligation and potentially being subject to prudential requirements under CRD IV.
56. One potential solution could be to have an annual test regarding whether the requirements of the exemption are still fulfilled based on an audit report. This approach would be in line with the requirement of annual notification.
57. However, it is noted that, even if calculated annually, the amount of capital employed and the size of the trading activity in financial instruments might fluctuate from year to year as, for example, events that occur periodically may require increased hedging activities in certain years. Therefore, a firm may fall within the scope of MiFID II because it fulfils the relevant criteria one year; however, it may

qualify for an exemption from MiFID II in another year. A practical approach to address this issue may be to determine the qualification for exemption on the basis of a rolling average of three years. Nevertheless, notification to the competent authority will have to be made annually as set forth by Article 2(1)(j) MiFID II. In order to establish this process, at the beginning an interim approach would have to be applied. A possible interim approach may be to define a starting date from which the data has to be collected that is necessary for the assessment of whether the person qualifies for the exemption and a second date at which the first calculation and notification to the competent authority has to be made. The first period from collecting the data to the first calculation/notification may be shorter than three years. The following calculations could then be made on an annual basis using a rolling approach until a period of three years can be taken into account on a rolling basis.

Q485: Should the (timeframe for) assessment be linked to audit processes?

Q486: How should seasonal variations be taken into account (for instance, if a firm puts on a maximum position at one point in the year and sells that down through the following twelve months should the calculation be taken at the maximum point or on average)?

Q487: Which approach would be practical in relation to firms that may fall within the scope of MiFID in one year but qualify for exemption in another year?

Q488: Do you see difficulties with regard to the two approaches suggested above?

Q489: How could a possible interim approach be defined with regard to the suggestion mentioned above (i.e. annual notification but calculation on a three years rolling basis)?

Q490: Do you agree that the competent authority to which the notification has to be made should be the one of the place of incorporation?

7.2. Position Limits

Overview

Article 57(1), MiFID II

Member States shall ensure that competent authorities, in line with the methodology for calculation determined by ESMA, establish and apply position limits on the size of a net position which a person can hold at all times in commodity derivatives traded on trading venues and economically equivalent OTC contracts.

1. Article 57(1) MiFID II requires that Member States shall ensure that competent authorities establish and apply position limits on the size of a person's net position in a commodity derivative in order to prevent market abuse and to support orderly pricing and settlement conditions. ESMA is required under MiFID II to develop draft RTS to implement these provisions, taking into account the composition and nature of the market, the promotion of market integrity without prejudicing the price discovery process, and the need to avoid creating barriers to the development of new commodity derivatives, whilst ensuring that the position limits regime is not circumvented.
2. Article 57(12) MiFID II requires ESMA to develop draft RTS to determine certain **factors** that competent authorities will use in establishing the position limits; the purpose of this section of the DP is to explore the approach that ESMA should take in determining these factors.
3. Article 57(3) MiFID II requires ESMA to develop draft RTS to determine the **methodology** for the calculation that competent authorities will apply in establishing the spot month position limits and other months position limits for physically settled and cash settled commodity derivatives based on the characteristics of the relevant derivative.

Matters not covered by mandates to ESMA

4. **Position management controls operated by trading venues.** Article 57(8) MiFID II requires investment firms and market operators operating trading venues to apply position management controls. ESMA's view is that this regime will operate in tandem with position limits set by NCAs.
5. ESMA is not mandated under MiFID II to develop technical standards in respect of this requirement and therefore position management controls applied by trading venues are not discussed further in this DP. However, it should be noted that these controls are a mandatory part of the new control framework and will necessarily interact closely with the ESMA position limits methodology and the relevant competent authority's position limits regime. Any position limits set by a trading venue using its position management powers will of necessity be of an equal or lesser size than that established by the relevant competent authority.

Article 57(12), MiFID II

Background/Mandate/Empowerment

6. Recitals: the position limits regime is described in Recitals 125 to 131 of MiFID II.

7. There is no text with equivalent purpose to Article 57 MiFID II in MiFID I. Therefore this work represents new policy development for ESMA.
8. In approaching its task of developing draft RTS under Article 57 MiFID II, ESMA sets out below questions in three areas:
 - i. first, addressing some of the key overarching considerations on **scope and application** in terms of the requirements of Article 57(12);
 - ii. second, setting out a **broad approach to a methodology** for how limits may be calculated under Article 57(3);
 - iii. third, posing a number of **specific questions** which would apply to the implementation of a position limits methodology.

Article 57(12), MiFID II

ESMA shall develop draft regulatory technical standards to determine:

- (a) the criteria and methods for determining whether a position qualifies as reducing risks directly related to commercial activities;*
- (b) the methods to determine when positions of a person are to be aggregated within a group;*
- (c) the criteria for determining whether a contract is an economically equivalent OTC contract to that traded on a traded venue, referred to in paragraph 1, in a way that facilitates the reporting of positions taken in equivalent OTC contracts to the relevant competent authority as determined in Article 58(2);*
- (d) the definition of what constitutes the same commodity derivative and significant volumes under paragraph 6 of this Article;*
- (e) the methodology for aggregating and netting OTC and on-venue commodity derivatives positions to establish the net position for purposes of assessing compliance with the limits. Such methodologies should establish criteria to determine which positions may be netted against one another and shall not facilitate the build-up of positions in a manner inconsistent with the objectives set out in paragraph 1 of this Article;*
- (f) the procedure setting out how persons may apply for the exemption under the second subparagraph of paragraph 1 of this article and how the relevant competent authority will approve such applications;*
- (g) the method for calculation to determine the venue where the largest volume of trading in a commodity derivative takes place and significant volumes under paragraph 6 of this Article.*

Analysis and proposal

Risk-reducing positions

9. MiFID II provides under Article 57(1) that position limits shall not apply to positions of a non-financial entity that are objectively measurable as reducing risks related to that entity's commercial activity. ESMA is required under Article 57(12)(a) MiFID II to develop a draft technical standard stating the criteria and methods for determining whether a position qualifies as reducing risks directly related to commercial activities.
10. Article 10(4)(a) of EMIR required ESMA to develop a draft RTS based on a similar Level 1 text. ESMA notes that the EMIR text includes reference to "treasury financing activity" which was not included in Article 57(1) MiFID II. ESMA believes that commodity derivatives are not commonly used for the purpose of treasury financing.
11. The standard developed for the purpose of EMIR states that a derivative contract is objectively measurable as reducing risks directly relating to the commercial activity when, by itself or in combination with other derivative contracts it meets one of the following criteria:
 - i. it covers the risks arising from the potential change in the value of assets, services, inputs, products, commodities or liabilities that the non-financial counterparty or its group owns, produces, manufactures, processes, provides, purchases, merchandises, leases, sells or incurs or reasonably anticipates owning, producing, manufacturing, processing, providing, purchasing, merchandising, leasing, selling or incurring in the normal course of its business;
 - ii. it covers the risks arising from the potential indirect impact on the value of assets, services, inputs, products, commodities or liabilities referred to in point (i), resulting from fluctuation of interest rates, inflation rates, foreign exchange rates or credit risk;
 - iii. it qualifies as a hedging contract pursuant to International Financial Reporting Standards (IFRS) adopted in accordance with Article 3 of Regulation (EC) No 1606/2002 of the European Parliament and of the Council.
12. ESMA believes that the interpretation and consequent application of risk-reducing activity should be consistent (recognising that EMIR addressed this question only in relation to OTC trades) as far as possible with the RTS produced under EMIR.

Q491: Do you agree with ESMA's proposal to link the definition of a risk-reducing trade under MiFID II to the definition applicable under EMIR? If you do not agree, what alternative definition do you believe is appropriate?

Non-financial entities

13. The disapplication of position limits for risk-reducing purposes relating to commercial activity under Article 57(1) MiFID II is only available to persons that are a "non-financial entity". This term is not defined within MiFID II. ESMA notes that the term "non-financial counterparty" is defined within Article 2(9) EMIR.
14. ESMA believes that the most appropriate definition of a non-financial entity for the purposes of MiFID II would be one that utilises the existing comparable definition within EMIR. ESMA proposes

that the definition is “a natural or legal person that is neither an investment firm authorised in accordance with Directive 2004/39/EC (MiFID), nor a credit institution authorised in accordance with Directive 2006/48/EC (BCD), nor an insurance undertaking authorised in accordance with Directive 73/239/EEC (First Non-Life Directive), nor an assurance undertaking authorised in accordance with Directive 2002/83/EC (Consolidated Life Directive), nor a reinsurance undertaking authorised in accordance with Directive 2005/68/EC (Reinsurance Directive), nor a UCITS and, where relevant, its management company, authorised in accordance with Directive 2009/65/EC (UCITS IV Directive), nor an institution for occupational retirement provision within the meaning of Article 6(a) of Directive 2003/41/EC (Occupational Pension Funds Directive) nor an alternative investment fund managed by AIFMs authorised or registered in accordance with Directive 2011/61/EU (Alternative Investment Fund Managers Directive)”.

Q492: Do you agree with ESMA’s proposed definition of a non-financial entity? If you do not agree, what alternative definition do you believe is appropriate?

Aggregation of positions within a group

15. ESMA is required by Article 57(12)(b) MiFID II to develop the methods to determine when positions of a person should be aggregated within a group.
16. In the context of MiFID II, the term “group” is defined in Article 2(34) and provides a cross-reference to Article 2(11) of Directive 2013/34/EU (“Accounting Directive”). This states that a group is “a parent undertaking and all its subsidiary undertakings”, and the proposals relating to position limits are to be read using this definition as a context.
17. Article 57(1) MiFID II states that the position limit requirement applies to positions which a ‘person’ can hold. ESMA interprets this as applying to the positions held by the end customer, which may be either a legal person or a natural person. Applying limits at the level of the end customer would address the risk of a customer holding, through several intermediaries, positions which were individually of moderate size but in aggregate may be considered significant.
18. ESMA notes that there is inherently an interaction of the requirement to aggregate positions with the position reporting provisions in Article 58 MiFID II, as the position reporting must provide the means to identify and subsequently calculate the aggregate positions. Hence not only must the position limits and position reporting regimes be consistent, but the effectiveness of the supervision of position limits will be dependent upon the reporting mechanism.
19. Article 57(1) MiFID II requires that the limits shall apply on the basis of all positions held by a person and also those held on its behalf at an aggregate group level. ESMA’s view is that this will require the aggregation of positions of a person (whether held directly by itself or on its behalf by third parties such as investment firms, under a client relationship) together with those of any wholly or partly owned subsidiaries of that entity, but not aggregation with the positions of fellow subsidiaries of a mutual parent or ultimate holding company.
20. Where subsidiaries of a person are not wholly owned by that person, it is possible to construct rules for aggregation of positions based upon either a simple threshold of ownership, such as 50% which would generally be viewed as giving effective control, or upon a more subjective assessment of the degree of control of the entity exercised by the group. There may also be circumstances where it is appropriate to aggregate positions even for unconnected persons where they are tied together in a common purpose.

21. Where a person has effective control of, but does not wholly own, a subsidiary (i.e. it has an ownership percentage of between 50% and 100%) ESMA proposes that the full amount of the relevant positions are aggregated, and not merely a percentage that reflects its proportion of ownership. This proposal is made for two reasons: firstly that positions will be reported under Article 58 MiFID II on the basis of legal entities, and not on the basis of percentage legal ownership; and secondly that the person that has effective control may act to use the full amount of the position held and not merely the portion of it that represents its economic interest.

Positions held on behalf of customers

22. For the avoidance of doubt, ESMA wishes to make clear that positions that are held by an intermediary on behalf of an end consumer do not count towards that intermediary's own position limits regardless of whether, for reasons of market practice, operational structure or legal framework, the positions are held by the intermediary as principal.

Q493: Should the regime for subsidiaries of a person other than entities that are wholly owned look to aggregate on the basis of a discrete percentage threshold or on a more subjective basis? What are the advantages and risks of either approach? Do you agree with the proposal that where the positions of an entity that is subject to substantial control by a person are aggregated, they are included in their entirety?

Q494: Should the regime apply to the positions held by unconnected persons where they are acting together with a common purpose (for example, “concert party” arrangements where different market participants collude to act for common purpose)?

Economically equivalent OTC contracts

23. ESMA is required to specify the criteria for determining whether an OTC contract that is a financial instrument within the scope of MiFID II is an “economically equivalent OTC contract” to a listed contract that is traded on a trading venue, in the form of a RM, MTF or OTF. This is necessary in order to facilitate the reporting of positions taken in equivalent OTC contracts to the relevant competent authority and the application of position limits for the purposes of the prevention of market abuse and the support of orderly pricing and settlement conditions.
24. ESMA understands that the purpose of determining whether an OTC contract is economically equivalent to a contract listed on a trading venue is to protect the integrity of the position limits regime, by preventing it from being circumvented by persons holding OTC positions that are effectively the same as listed contracts or have the same effect on the relevant market.
25. Therefore, the scope of ‘economically equivalent’ should be broad enough to protect the integrity of position limits, by capturing lookalike OTC contracts in a way that enables position limits to be applied effectively and efficiently by competent authorities. The relevant competent authority will determine ultimately what OTC contracts are equivalent to listed contracts and are therefore available for netting. Persons must be able to demonstrate the allocation of the economically equivalent OTC contract against the listed contract, always considering that an OTC contract may be used for the purpose of netting or aggregation once only, and should not be “double-counted” in either the reduction or increase of positions in different listed contracts.
26. The fundamental characteristic of a physically settled commodity derivative is that it is deliverable into the underlying commodity. In the case of exchange-traded contracts, the terms of the physical

delivery (e.g. quantity per lot, grade, delivery point, etc.) are defined in the contract specification, which is publicly available. In the case of a cash-settled contract, the comparison will be in the equivalence of the underlying commodity that is the basis of the settlement payment.

27. In the case of an OTC commodity derivative, the underlying commodity will be defined in the terms of the agreement between the two counterparties. This may, or may not, be identical to the terms of an exchange-traded contract. ESMA believes that in order to be equivalent in economic terms (i.e. the financial effect on the purchaser or seller of the OTC contract is in overall terms identical) then both the cost and the outcome of the OTC contract should, when combined together, produce the same result as the economic result of purchasing (or selling) the relevant on-exchange contract.

28. ESMA proposes two approaches for discussion. The first approach is derived from the usage of the term “economically equivalent” in other parts of MiFID II and the second approach is derived from consideration of the market practices in other jurisdictions.

29. First approach:

In assessing the characteristics of any OTC contract, the following factors are considered relevant:

- i. economically equivalent OTC contracts would present the same risk profiles as the contracts that are traded on a trading venue;
- ii. economically equivalent OTC contracts must have equivalent maturities and same deliverables as contracts that are traded on a trading venue;
- iii. economically equivalent OTC contracts are subject to equivalent margining and netting treatment to contracts that are traded on a trading venue.

30. An OTC contract must meet all three of these criteria in order to be considered economically equivalent to an exchange traded contract.

Q495: Do you agree with the approach to link the definition of economically equivalent OTC contract, for the purpose of position limits, with the definitions used in other parts of MiFID II? If you do not agree, what alternative definition do you believe is appropriate?

Q496: Do you agree that even where a contract is, or may be, cash-settled it is appropriate to base its equivalence on the substitutability of the underlying physical commodity that it is referenced to? If you do not agree, what alternative measures of equivalence could be used?

31. Second approach:

A second approach to defining an economically equivalent OTC contract could be to refer to the market practice of other jurisdictions, as ESMA is required to do under Article 57(3) MiFID II. A widely known and purposively similar regime for position limits is that maintained by the CFTC. Recent CFTC proposals have stated that a contract is economically equivalent to a “Core Referenced Futures Contract” if it is either:

- i. a “look-alike” contract i.e., it settles off of the Core Referenced Futures Contract or contracts that are based on the same commodity for the same delivery location as the Core Referenced Futures Contract;
- ii. linked or priced at a fixed differential to the price of a Core Referenced Futures Contract; or
- iii. linked or priced at a fixed differential to the price of the same commodity that underlies the contract with the same delivery location.

Q497: Do you believe that the definition of “economically equivalent” that is used by the CFTC is appropriate for the purpose of defining the contracts that are not traded on a trading venue for the position limits regime of MiFID II? Give reasons to support your views as well as any suggested amendments or additions to this definition.

32. A notable difference between the proposed CFTC rules and the requirements of MiFID II is the number of affected financial instruments. The CFTC position limits regime applies to 28 Core Referenced Futures Contracts that are identified and listed by the CFTC. The MiFID II regime will apply to all contracts in commodity derivatives, as defined by MiFID II. This is numerically a significantly greater scope.

Q498: What arrangements could be put in place to support competent authorities identifying what OTC contracts are considered to be economically equivalent to listed contracts traded on a trading venue? ?

Homogeneity of derivative contracts

33. ESMA is required under Article 57(12)(d) MiFID II to determine the definition of what constitutes the same commodity derivative.
34. In the view of ESMA, “same” is a subset of economically equivalent. A commodity derivative is the same if it is at least economically equivalent and in addition has other equivalent properties, such as accepting the same deliverable supply for settlement.
35. There are a number of examples of the cross-listing of the same derivative contract on legally separate exchanges. An example of the same contract being listed on different trading venues is the KOSPI 200 contract which was launched for trading in August 2010 on Eurex. This contract trades in parallel to the original contract that has been listed on the Korea Exchange.
36. In contrast, ESMA believes that, by definition, an economically equivalent OTC contract cannot be the same as a contract that is traded on a trading venue under the rules of that trading venue.

Q499: Do you agree with ESMA’s proposal that the “same” derivative contract occurs where an identical contract is listed independently on two or more different trading venues? What other alternative definitions of “same” could be applied to commodity derivatives?

Aggregation and netting of a person’s positions

37. Article 57(1) MiFID II requires that the methodology determined by ESMA shall be applied to the “net positions” held by a person. The definition of “person” has already been set out above.

38. In ensuring that the position limits methodology considers all relevant factors and is applied in the correct manner, ESMA must establish what is meant by a net position, how it should be calculated, and how contracts that are economically equivalent but have different characteristics can be netted (for example, the netting of futures and equivalent options in the same commodity). This will require a set of rules for converting economically equivalent contracts into the same metric as the on venue derivative they are deemed equivalent to. Once converted they can then be aggregated or netted. For converting options into futures equivalents the rules should be aligned with the regime for position reporting. But additional rules will be required where the equivalent contract has a different tenor or maturity, different lot sizes or pricing currency or a similar but different underlying commodity. This includes establishing criteria to determine which positions may be netted against one another and it should not facilitate the build-up of positions in a manner inconsistent with the objectives of Article 57. It will fall to NCAs to oversee and to validate the correct usage of netting of OTC and listed contracts.
39. Although MiFID II does not set out how a net position should be calculated, or the extent to which a position executed on a trading venue should be aggregated or netted with activity elsewhere. Article 57(1) MiFID II does refer to the holdings of a person in a commodity derivative and economically equivalent OTC contracts. It does not refer to holdings of an underlying commodity.
40. Therefore ESMA has interpreted Article 57(1) MiFID II as requiring that physical holdings should be **excluded** from the calculation of a person's net positions (although such positions may be relevant for consideration in utilising the exemption for the reduction of risk for commercial purposes).
41. The question of aggregation and/or netting arises in a number of dimensions: across the tenor of positions that are on a trading venue, and across OTC markets as well as in handling identical or correlated on-venue contracts. In broad terms ESMA proposes that holdings in identical contracts, whether listed on the same trading venue or cross-listed on multiple trading venues, or contracts that meet the criteria of "economically equivalent OTC contract", should be **included** within the calculation of a person's position whether held on the same venue, across multiple venues, or executed bilaterally OTC.
42. Contracts in securities (such as exchange traded products (ETPs)) which have a commodities underlying are **included** within the definition of "commodity derivatives" that is given in Article 4(30) MiFID II. Therefore these contracts are included within the scope of both Article 57 and Article 58 MiFID II.

Q500: Do you agree with ESMA's proposals on aggregation and netting? How should ESMA address the practical obstacles to including within the assessment positions entered into OTC or on third country venues? Should ESMA adopt a model for pooling related contracts and should this extend to closely correlated contracts? How should equivalent contracts be converted into a similar metric to the exchange traded contract they are deemed equivalent to?

Notification and approval of exemptions

43. ESMA is required under Article 57(12)(f) MiFID II to determine the procedure by which non-financial entities that are holding positions for the purpose of risk-reduction may be exempted from the position limits regime. ESMA is also required to specify how the relevant competent authority will approve such applications.

44. For the avoidance of doubt, ESMA notes that both Article 57 and Article 58 MiFID II apply to all persons, regardless of whether they are persons that are exempt from the scope of MiFID II under the provisions of Article 2 MiFID II: the requirements of Article 57(12)(f) MiFID II are to be considered separately.
45. MiFID II does not define to whom the notification of exemption should be made. As the notification is an exemption from the position limits regime in relation to holdings in a specific contract, ESMA considers that this is the basis for the notification. Therefore ESMA proposes that, for both persons that are incorporated in an EU member state and persons that are incorporated in a third country, the notification is made to the NCA of the relevant trading venue.
46. ESMA considers this to be an appropriate proposal as a person may be eligible for an exemption in relation to certain contracts, i.e. related to its commercial activities, and not eligible for an exemption in relation to other, speculative, activities.
47. ESMA proposes that a similar procedure is defined to that required under EMIR for the notification of exemptions from the EMIR clearing obligation. Applications for the use of, and the subsequent approval of, the exemption by the person do not have to be made prior to entering into a position in the relevant contracts. However in order to avoid the use of position management powers, a person should ensure that a relevant exemption has been obtained before approaching the limits set for the size of a position. Submissions should be made online to the relevant competent authority by means of an electronic portal.
48. ESMA proposes that each competent authority has up to 30 calendar days to consider the notification and decide whether to approve it, after which a reply will be given. Where a competent authority expects to oppose the use of the exemption, it may contact the person and give a short period of time in order to provide any relevant additional information before a final decision is made.

Market size

49. As a foundation for many aspects of the Article 57 MiFID II regime, it is necessary to establish the overall size of the relevant market. It is important to note that the deliverable supply and open interest should be applied in a manner that is consistent with the calculation of a person's position in terms of the treatment of physical stocks, lookalike contracts, etc.
50. For physically delivered contracts, ESMA proposes that the prompt reference contract position limit would be expressed in relation to deliverable supply or, for example in the case of power contracts, capacity constraints on delivery acceptance in the underlying commodity. It is expected that for contracts that are listed on trading venues, the trading venue that lists the contract will provide its calculation of the current volume of deliverable supply to the competent authorities and to ESMA.
51. For cash settled contracts, ESMA proposes that the prompt reference contract position limit would be based upon open interest at the point at which it becomes the prompt contract.
52. For both physical and cash-settled types of contract all subsequent month's contracts would be based upon open interest.
53. An alternative approach that may be considered more appropriate even for cash settled contracts is to assess a position limit against the underlying physical market in all circumstances and to take account of the deliverable supply/capacity constraints in the underlying.

Q501: Do you agree with ESMA's approach to defining market size for physically settled contracts? Is it appropriate for cash settled contracts to set position limits without taking into account the underlying physical market?

54. In order to avoid the position limits changing in real-time as the deliverable supply or open interest fluctuates, ESMA believes it would be preferable to set the limit so as to be fixed for a certain period of time on a forward looking basis e.g. the market size basis for the calculation would be held static for e.g. a three-month period. ESMA has a preference for this period of time as a number of commodity contracts are based around three-month expiry cycles.
55. Such an approach would have to take into account the estimated variations in deliverable supply and open interest over such a time period, including any estimated growth in the market. Recent history may be useful to inform this forecast. It may also, however, be appropriate to allow for a more immediate change in the limits in the case of exceptional fluctuations in the deliverable supply. The approach would also need to consider whether, and if so how, to grandfather positions based on contracts entered into before position limits were revised.

Q502: Do you agree that it is preferable to set the position limit on a contract for a fixed (excluding exceptional circumstances) period rather than amending it on a real-time basis? What period do you believe is appropriate, considering in particular the factors of market evolution and operational efficiency?

Q503: Once the position limits regime is implemented, what period do you feel is appropriate to give sufficient notice to persons of the subsequent adjustment of position limits?

Q504: Should positions based on contracts entered into before the revision of position limits be grandfathered and if so how?

56. Article 57(12)(g) MiFID II requires that ESMA develops the method of determining the venue on which the largest volume of trading in a commodity derivative takes place. For the avoidance of doubt, ESMA notes that this will only be required where the same contract in a commodity derivative is traded on two or more trading venues within the EU.
57. ESMA proposes that the venue is that on which the largest volume of open interest is held, measured in the number of lots of the relevant contract.
58. ESMA is also required to develop a method to establish the volume that is significant and above which the central, or primary, venue is established. ESMA believes that it would be contrary to the objective of Article 57 MiFID II for the prevention of market abuse to facilitate a different treatment of the same contract on different trading venues. This could permit the avoidance of a position limit by the mere selection of an alternative trading venue.
59. Therefore as an anti-avoidance measure ESMA proposes that where the same commodity derivative contract is traded on two or more alternative trading venues, the determination referred to above is conducted whenever there are more than three (3) lots of open interest in the same contract across more than one (1) trading venue.

Q505: Do you agree with ESMA’s proposals for the determination of a central or primary trading venue for the purpose of establishing position limits in the same derivative contracts? If you do not agree, what practical alternative method should be used?

Q506: Should the level of “significant volume” be set at a different level to that proposed above? If yes, please explain what level should be applied, and how it may be determined on an ongoing basis?

Methodology for calculation of position limits

Background/Mandate/Empowerment

Article 57(3), MiFID II

ESMA shall develop draft regulatory technical standards to determine the methodology for calculation that competent authorities are to apply in establishing the spot month position limits and other months’ position limits for physically settled and cash settled commodity derivatives based on the characteristics of the relevant derivative. The methodology for calculation shall take into account at least the following factors:

- (a) the maturity of the commodity derivative contracts;*
- (b) the deliverable supply in the underlying commodity;*
- (c) the overall open interest in that contract and the overall open interest in other financial instruments with the same underlying commodity;*
- (d) the volatility of the relevant markets, including substitute derivatives and the underlying commodity markets;*
- (e) the number and size of the market participants;*
- (f) the characteristics of the underlying commodity market, including patterns of production, consumption and transportation to market;*
- (g) the development of new contracts.*

ESMA shall take into account experience regarding the position limits of investment firms or market operators operating a trading venue and of other jurisdictions.

Analysis and proposal

60. This part of the DP is divided into two elements. Firstly, there is consideration of the various factors which ESMA is required to take into account within a position limits methodology. Secondly there is a discussion of the proposed methodology itself.

Factors affecting position limits

61. Article 57(3) MiFID II sets out a list of seven factors which ESMA is required to take into account in developing the draft RTS. It should be noted that Article 57(3) MiFID II refers to commodity derivatives, which can be physically settled or are cash settled. Therefore the application of individual factors may be different depending on the nature of intended settlement. Additionally, Article 57 MiFID II applies not just to all commodities contracts on RMs but also to MTFs and OTFs and to economically equivalent OTC contracts, and requires consideration of the different characteristics of financial instruments that are traded in different ways.
62. Article 57(3)(a) MiFID II refers to the **maturity** of the commodity derivative contracts, which is relevant to establishing the market size for physically delivered contracts, and the open interest for cash settled contracts. ESMA recognises that the size and other characteristics of the market at any point will be affected by the period of time that a specific contract has remaining until it expires, and for this reason the methodology should recognise the variability that this factor creates.
63. The wording of Article 57(3) MiFID II requires competent authorities to determine two separate position limits for a specific contract, to be applied separately to the spot month (the “spot limit”) and to all other months’ positions, considered in aggregate (the “forward limit”).

Q507: In using the maturity of commodity contracts as a factor, do you agree that competent authorities apply the methodology in a different way for the spot month and for the aggregate of all other months along the curve?

Q508: What factors do you believe should be applied to reflect the differences in the nature of trading activity between the spot month and the forward months?

64. Article 57(3)(b) MiFID II refers to the **deliverable supply** in the underlying commodity, which is relevant to establishing the market size for physically delivered contracts, and may also need to be considered for cash settled contracts.
65. ESMA proposes that in the first instance the competent authority of a trading venue should obtain and use the data on deliverable supply that is maintained by that trading venue for the purpose of its own market oversight needs and obligations.
66. However the competent authority may choose to adjust the level of the deliverable supply as stated by the trading venue in order to reflect some or all of the factors given below in order to deliver an outcome that is better aligned with the objectives of Article 57 MiFID II.
67. Where delivery is limited to a named port or other location, the deliverable supply definition may be adjusted to take account of the capacity constraints of that location. For power markets, it may be more appropriate to look in terms of delivery capacity rather than supply.
68. In assessing the deliverable supply of a commodity, consideration should also be given to the accuracy by which supply may be determined; where delivery is from licenced warehouse stocks, deliverable supply is capable of precise and frequently updated measurement. In other circumstances, it may be appropriate to calculate it on a defined and consistent basis, perhaps drawing on industry research or governmental statistics.
69. The inclusion of geographical scope in deliverable supply will necessarily reflect the practicalities relating to different types of underlying: for some contracts it will reflect their nature as a global market whilst others will operate on a more regional or local basis.

70. ESMA also notes the progress being made under G20 initiatives to improve transparency in commodity markets; these initiatives may in time prove beneficial in the calculation of deliverable supply. The introduction of reporting of transactions to TRs under EMIR and the availability of data from physical market regulators – notably of gas and power markets – will also aid in the calculation process performed by NCAs.

Q509: Do you agree with ESMA’s proposal for trading venues to provide data on the deliverable supply underlying their contracts? If you do not agree, what considerations should be given to determining the deliverable supply for a contract?

71. Article 57(3)(c) MiFID II refers to the **overall open interest** in the respective commodity derivative contract **and** the overall open interest in **other** financial instruments with the same underlying commodity. For clarity, this provision should not be applied to instruments that are merely correlated but not related to the same underlying commodity.
72. ESMA proposes that the open interest is treated in an identical manner to deliverable supply, and that the data maintained by trading venues is used by NCAs in their processes to establish position limits

Q510: In the light of the fact that some commodity markets are truly global, do you consider that open interest in similar or identical contracts in non-EEA jurisdictions should be taken into account? If so, how do you propose doing this, given that data from some trading venues may not be available on the same basis or in the same timeframe as that from other trading venues?

73. Article 57(3)(d) MiFID II refers to the level of **volatility** in the relevant markets, including substitutable derivatives and the underlying commodity markets. ESMA notes that it will not always be possible to have information on volatility of underlying markets, as these are not always transparent traded markets.

Q511: In the absence of published or easily obtained information on volatility in derivative and physical commodity markets, in what ways should ESMA reflect this factor in its methodology? Are there any alternative measures that may be obtained by ESMA for use in the methodology?

74. Article 57(3)(e) MiFID II refers to the **number and size of the market participants**. Where there are fewer participants, it is axiomatic that an individual participant is likely to have a larger market share. However, ESMA is aware that there should not be an automatic relaxation of limits in such circumstances because of the heightened susceptibility to abusive behaviour where there are few market participants.
75. A liquid market in a particular product is characterised by a high number of active market participants, including a balanced mix of liquidity providers and liquidity takers, who execute frequent trades of or below normal market size. In such a market it is more difficult for a participant to undertake market abuse or create a disorderly market.
76. ESMA notes that the issues relating to this factor are similar to the issues faced when dealing with new and/or illiquid contracts, and indeed there may be a relationship between them. In considering the number and size of participants, ESMA proposes that this factor is applied as in a “normal market”, meaning that where there are more participants to “share” the contracts, a person’s position becomes dominant at a lower level. In a new/illiquid market, the reverse is true where the lack of partic-

ipants may lead to a participant having a sizeable and dominant market share, perhaps regardless of whether they intend to or not.

77. Concentration of positions in a market will particularly be a factor in national gas and power markets, which may need to set limits to reflect the existence of ‘national champions’, depending on the extent of fragmentation of former state-owned incumbents and the terms of any market maker schemes operated by venues as necessary for proper market operation. This is accommodated in the use of separate factors for different asset classes, which can reflect the individual market structures.

Q512: Are there any other considerations related to the number and size of market participants that ESMA should consider in its methodology?

78. Article 57(3)(f) refers to the characteristics of the **underlying commodity market**, including patterns of production, consumption and transportation to market.
79. The limit structure methodology may need to take account of seasonality, both in relation to seasonal supply outages in the physical market (e.g. for maintenance) which reduce physical supply, and with respect to the size of positions that participants may run at certain times of the year (hedging programmes or compliance periods that necessitate the taking of specific positions e.g. at year-end). This would be equally relevant to both physically delivered and cash settled contracts. This factor is also relevant to the question of fixing a specific position limit for a pre-defined period of time.
80. The perishability of deliverable material should also be considered. Perishable deliverable material will mean that it would be harder to maintain warehouse stocks over a prolonged period.
81. Consideration of transportation to market overlaps with deliverable supply, which will need to be calculated on what can actually be delivered to a specified delivery point taking into account capacity constraints.

Q513: Are there any other considerations related to the characteristics of the underlying commodity market that ESMA should consider in its methodology?

82. Article 57(3)(g) of MiFID II refers to the development of **new contracts**. The introduction of complementary or competing contracts may act to either increase or decrease the demand for trading in a particular commodity derivative. It may also act to split liquidity between venues, requiring a recalculation of the existing position limit to reflect a smaller volume of open interest.
83. Until a new contract becomes established, it may be appropriate to provide for its particular characteristics: there may be a small number of market participants who will hold positions that are large in percentage terms of the whole market, but small in absolute financial value. There are alternative approaches to address these issues in setting position limits:
- i. take each new or illiquid contract separately and consider a reasonable multiple of current transaction size as a position limit to permit trading to develop. This position limit may or may not have a time limit;
 - ii. set a minimum level of position limits that might apply across venues generally, below which trading would be allowed regardless of the size of the position in proportion to market size (as measured in terms of deliverable supply or open interest as appropriate). This would not be time-limited or otherwise restricted to new contracts.

84. ESMA notes that there may similarly be certain long-established contracts which remain illiquid and narrow in terms of participation. These are considered under Article 57(3)(c) MiFID II in relation to the overall open interest in a contract.

Q514: For new contracts, what approach should ESMA take in establishing a regime that facilitates continued market evolution within the framework of Article 57?

Overall assessment of the factors

Q515: The interpretation of the factors in the paragraphs above will be significant in applying ESMA's methodology; do you agree with ESMA's interpretation? If you do not agree with ESMA's interpretation, what aspects require amendment?

85. The list of factors set out in Article 57(3) of MiFID II which ESMA is asked to take into account in developing the RTS explicitly permits that other factors can be considered.

Q516: Are there any other factors which should be included in the methodology for determining position limits? If so, state in which way (with reference to the proposed methodology explained below) they should be incorporated.

Proposed approach

86. The EU faces the challenge that the range of markets to which Article 57 MiFID II will apply across Europe possesses a variety of individual characteristics. The regime will have to work for venues as diverse as power exchanges, which have developed from physical roots and still in some cases retain dominant market participants, through to the daily contract structure seen on the London Metal Exchange and some power markets.

87. Because of the range of venues and asset classes to which Article 57 of MiFID II applies, ESMA considers it is necessary to allow a degree of variation in setting the position limits methodology for specific market structures.

88. ESMA proposes developing a framework which considers each of the factors in Article 57(3) of MiFID II in turn and sets out how each factor would need consideration and have an influence on the calculation of a position limit.

Prompt and/or forward expiries

89. Article 57(1) of MiFID II states the rationale for establishing position limits is to prevent market abuse and support orderly pricing and settlement conditions, particularly to ensure convergence between the price of derivatives in the delivery month and the spot price of the underlying commodity. ESMA believes that the application of position limits in the prompt¹⁸⁰ reference contract address both of these objectives.

¹⁸⁰ The term 'prompt reference contract' means the futures contract period closest to expiry or the forward contract which acts as the most prompt reference price. This is the same as the term 'spot month' used in regulations in other jurisdictions. It should not be confused with the 'cash' market or "spot" transactions in the underlying physical commodity for immediate settlement.

90. “All months” forward position limits in subsequent maturities covering total net or gross positions, are imposed to limit abusive behaviour by acting as a warning mechanism to prevent a build-up of positions that may, if maintained over time, become a concern as they become near prompt.
91. Whilst open interest is typically (but not exclusively) greatest in the prompt reference contract, there may in some cases be a different contract that is generally used as a reference price or a proxy for the whole year. Examples are the ‘third Wednesday’ in LME base metal daily contracts and the December monthly contract in emissions. In such circumstances abusive behaviour may target a contract other than the prompt.
92. ESMA notes the risk that if the forward limit is calculated on a different basis than for the prompt reference contract, it might cause a dislocation in market activity as the position moves into the prompt. ESMA believes that this risk will be significantly reduced by clear and widespread communication of the position limits that are set by competent authorities for each contract on a trading venue.

Q517: What do you consider to be the risks and/or the advantages of applying a different methodology for determining position limits for prompt reference contracts compared to the methodology used for the position limit on forward maturities?

Q518: How should the position limits regime reflect the specific risks present in the run up to contract expiry?

Q519: If a different methodology is set for the prompt reference contract, would it be appropriate to make an exception where a contract other than the prompt is the key benchmark used by the market?

Methodology adjustment factors

93. ESMA is required to determine a methodology to enable NCAs to calculate the limit to be applied for any particular contract on a trading venue. ESMA proposes a methodology that uses a baseline that is then adjusted upwards or downwards depending on the specific characteristics of a contract. The objective of the methodology is to permit position limits to be flexible whilst at the same time constraining them within a boundary that preserves market integrity.
94. ESMA proposes that the baseline used as the foundation for the position limits methodology is the deliverable supply that is available in the commodity underlying the particular commodity derivative contract. This figure will be supplied by the trading venue that has listed the particular commodity derivative contract.

Q520: Do you agree that the baseline for the methodology of setting a position limit should be the deliverable supply? What concrete examples of issues do you foresee in obtaining or using the measure?

Q521: If you consider that a more appropriate measure exists to form the baseline of the methodology, please explain the measure and why it is more appropriate. Consideration should be given to the reliability and availability of such a measure in order to provide certainty to market participants.

95. As an example, this baseline may be expressed by the competent authority in terms of either a percentage (e.g. being 25% of an initial reference value), an absolute value (e.g. 10m tonnes; 500,000 kWh; etc.) or a number of lots as traded on the trading venue (e.g. 5,000 lots of a contract or its equivalents). The competent authority is responsible for selecting the measurement type that is most

appropriate for the contract. This may reflect the vocabulary of existing exchange position limits regimes.

96. The baseline figure, which could be different for each asset class, will then be adjusted according to the following methodology, referring to the factors listed in Article 57(3)(a) to (g) MiFID II:
- i. maturity – the longer to maturity, the higher the limit may be as this gives market participants time to adjust to ensure an orderly meeting of their settlement obligations;
 - ii. deliverable supply – the larger the supply, the higher the limit due to a simple scaling of the limit to the size of the market;
 - iii. open interest – the larger the open interest, the higher the limit due to a simple scaling of the limit to the size of the market;
 - iv. volatility – the more volatile the market, the lower the limit that will be applied, in order to encourage orderly pricing and avoid wide swings;
 - v. number and size of participants – the more participants, the lower the limit will be set, in order to discourage market abuse by preventing the use of dominant power over other parties;
 - vi. characteristics of underlying market – the more inflexible the market, the lower the limit will be set in order to discourage market abuse by squeezes on supply;
 - vii. new contracts – when a contract is new, the higher the limit in order to prevent the participation of limited numbers of persons being seen as dominant in the “nurturing” stages of a new product launch.
97. In order to support orderly pricing and settlement conditions, ESMA believes that the overall amount of the adjustment permitted should not exceed 15% from the baseline figure, or an equivalent amount expressed in lots or other units, i.e. the position limit = 25% +/- 15% (depending on the factors set out above).
98. This approach would therefore set a central baseline figures with a put cap and collar, to enable a position limit for a particular contract or asset class to be calculated on a basis that reflects the specific characteristics of that market, but is narrow enough to establish an appropriate level of conformity across the market. ESMA acknowledges that such a structure would necessarily be based at least in part on qualitative assessments of the individual factors rather than the prescriptive use of specific numbers in a wholly formulaic manner. Competent authorities would propose such baselines and adjustments for ESMA to consider as per Article 57(5) MiFID II which would ensure a harmonised approach within the EU.

Q522: Do you agree with this approach for the proposed methodology? If you do not agree, what alternative methodology do you propose, considering the full scope of the requirements of Article 57 MiFID II?

Q523: Do you have any views on the level at which the baseline (if relevant, for each different asset class) should be set, and the size of the adjustment numbers for each separate factor that ESMA must consider in the methodology defined by Article 57 MiFID II?

Recognition of different asset classes

99. It is recognised by ESMA that whilst a common methodology has the benefits of standardisation, its application may require flexibility to take account of the prevailing different characteristics of different asset classes within commodity markets. This approach is consistent with the intent of Article 57(9) MiFID II which states that position limits shall take account of the nature and composition of the participants and the use that they make of the contracts that are subject to trading.

100. The concept proposed in this section is to group similar commodity markets or contracts under high-level categorisations which would then permit the application of certain key variable factors to each commodity under a given categorisation as a basis for deriving the limits. The differing basis of measurement (e.g. barrels, MWh, tonnes) is used as one possible indication of where the asset class groupings could be assembled.

101. The broad asset classes to consider would be as follows:

- i. Metals
- ii. Oil and oil products
- iii. Coal
- iv. Gas
- v. Power
- vi. Agricultural products
- vii. Freight
- viii. Climatic variables
- ix. Inflation rates and economic statistics

The key characteristics that have been considered in grouping contracts into asset classes are:

102. **Metals.** Base metals trading tends to be by way of daily contracts, physically settled from non-perishable stock in warehouses. Because liquidity is fragmented across daily contracts, the position limit per daily maturity will be a relatively high percentage of deliverable supply, which would be calculated from prompt reference contracts and warehouse stock. Between contracts in different base metals, the key variable may be the number of market participants for each particular metal.

103. **Oil and oil products.** Contracts are a mixture of cash and physically settled, tend to be monthly contracts and will vary from very liquid to relatively illiquid contracts. A methodology that covers such a range of liquidity may require further attention to sub-divisions to accommodate this spread.
104. **Coal and dry freight.** Trading tends to be by cash settled monthly contracts of relatively low liquidity. A methodology for this asset class may reflect this lack of liquidity.
105. **Gas.** Trading tends to be physically settled at specific notification points. There are additional safeguards provided by energy regulators, though the underlying commodity lends itself to storage more easily than power and so the balancing needs are not quite so immediate. There may be dominant market participants, although the gas markets operate less narrowly on national lines compared to power markets. In considering this asset class, attention may be given to the amount and mechanism of deliverable supply.
106. **Power.** Trading tends to be physically settled at specific notification points. There are additional safeguards provided by energy regulators and balancing mechanisms to ensure orderly settlement. Additionally, the market tends to be narrow and liquidity low; there may be a dominant market participant which may often be a “national champion”. It is likely that the position limits regime for this asset class reflects the various structural restrictions on liquidity, supply, participation and delivery.
107. **Agricultural products.** Trading tends to be physically settled in contracts of monthly or less frequent settlement. Where settlement of a contract is effected by delivering perishable stock from or into a licenced warehouse, this stock should be taken into account when participants assess their compliance with the limits, as the contracts approach expiry. Market participation tends to be relatively narrow and much of it from physical market participants who will be able to use the exemption for risk reducing trades relating to commercial activity. Position limits in other months will tend to be lower than or near the limit for the prompt reference contract.
108. **Climatic variables, inflation rates and economic statistics.** Trading in commodity derivatives on these asset classes tends to be of a low volume with relatively low liquidity. A methodology for this asset class may reflect this lack of liquidity.

Q524: Does the approach to asset classes have the right level of granularity to take into account market characteristics? Are the key characteristics the right ones to take into account? Are the conclusions by asset class appropriate?

Specific questions

109. The following questions cover more granular details of the application of the position limits regime.

Experiences of other venues or jurisdictions

110. Article 57(3) MiFID II states that ESMA shall take into account the experience regarding position limits of investment firms or market operators operating a trading venue and other jurisdictions. ESMA interprets this provision as a requirement for a dialogue with stakeholders and other interested parties as part of preparing these proposals. This is not in itself a separate factor for the calculation.
111. In particular, ESMA is interested to learn about the practical aspects of any previous experience with position limits regimes, any operational issues that should be taken into consideration, and any lessons that can be learned as a consequence.

Q525: What trading venues or jurisdictions should ESMA take into consideration in defining its position limits methodology? What particular aspects of these experiences should be included within ESMA's work?

Units of expression of limits

112. Article 57(2) MiFID II requires that the position limits are 'clear quantitative thresholds'. It is possible to state position limits in a number of ways:

- i. as a percentage relationship between a position and some measure of absolute deliverable supply or overall market size measure;
- ii. as an amount of lots of a specific contract on a trading venue; or expressed as a quantity of the underlying in the contract (which may be tonnes, barrels, MWh, etc).

113. ESMA views both of these different measures as meeting the requirement for being 'clear quantitative thresholds'.

Q526: Do you agree that the RTS should accommodate the flexibility to express position limits in the units appropriate to the individual market? Are there any other alternative measures or mechanisms by which position limits could be expressed?

114. Article 57(3)(a) of MiFID II refers to the **maturity** of the commodity derivative contracts. Under this heading frequency of expiries should also be considered, noting that position limits will apply to markets with daily contract expiries as well as those with monthly or less frequent expiries.

115. So, for example, where the traded volume or open interest of a specific contract is 'smaller' because it is daily rather than monthly expired, a higher percentage of the deliverable supply or open interest held by a person would be both expected and permissible because the total market size of a single day will be a smaller proportion of the whole market.

Q527: How should the methodology for setting limits take account of a daily contract structure, where this exists?

116. ESMA believes that there is little alternative to treating options in a position calculation on the basis of a delta equivalent position. However, the calculation of delta equivalent is usually carried out by a firm on the basis of its own internal models for risk management purposes. There is a risk that firms could manipulate the outcomes of such calculations and it may not be feasible for trading venues to undertake calculations themselves to validate firms' reports.

117. A possible approach would be to use the delta calculation values used by and published by trading venues. This would enable persons to align their calculation of overall futures-equivalent positions with that which may be used for other purposes, and does not need the establishment of a second, separate, equivalence calculation.

118. If such a trading venue delta value is not publicly available, a standard delta of 0.5 should be applied. This reflects that, on average, there may be an equal probability of an option being exercised at expiry, regardless of whether, at its current position on the forward curve, it is in- or out-of-the-money, and regardless of the extent.

Q528: Do you agree that limits for option positions should be set on the basis of delta equivalent values? What processes should be put in place to avoid manipulation of the process?

Q529: Do you agree that the preferred methodology for the calculation of delta-equivalent futures positions is the use of the delta value that is published by trading venues? If you do not, please explain what methodology you prefer, and the reasons in favour of it?

119. The requirement placed upon ESMA is that RTS shall be developed in accordance with Article 57(9) MiFID II which states that position limits and position management controls shall be transparent and non-discriminatory. In order to demonstrate this, Article 57(10) MiFID II requires ESMA to publish a database on its website with summaries of position limits and position management controls.

Q530: Do you agree that the description of the approach outlined above, combined with the publication of limits under Article 57(9), would fulfil the requirement to be transparent and non-discriminatory?

120. Currently not all venues have position limits on commodity derivatives in place, so there would need to be a period of transition. Clear implementation and transition provisions would help to avoid any market dislocation caused by firms having to reduce positions in a hurried manner. Such arrangements would need to consider how participants manage their positions ahead of new position limits being put in place, how much notification might be required, and how positions arising from existing contracts might be handled

Q531: What challenges are posed by transition and what areas of guidance should be provided on implementation? What transitional arrangements would be considered to be appropriate?

7.3. Position Reporting

Background/Mandate/Empowerment

Article 58, MiFID II

1. *Member States shall ensure that an investment firm or a market operator operating a trading venue which trades commodity derivatives or emission allowances or derivatives thereof:*
 - (a) *make public a weekly report with the aggregate positions held by the different categories of persons for the different commodity derivatives or emission allowances or derivatives thereof traded on their trading venue, specifying the number of long and short positions by such categories, changes thereto since the previous report, the percentage of the total open interest represented by each category and the number of persons holding a position in each category in accordance with paragraph 4 and communicate that report to the competent authority and to ESMA; ESMA shall proceed to a centralised publication of the information included in those reports;*
 - (b) *provide the competent authority with a complete breakdown of the positions held by all persons, including the members or participants and the clients thereof, on that trading venue, at least on a daily basis.*

The obligation laid down in point (a) shall only apply when both the number of persons and their open positions exceed minimum thresholds.
2. *Member States shall ensure that investment firms trading in commodity derivatives or emission allowances or derivatives thereof outside a trading venue provide the competent authority of the trading venue where the commodity derivatives or emission allowances or derivatives thereof are traded or the central competent authority where the commodity derivatives or emission allowances or derivatives thereof are traded in significant volumes on trading venues in more than one jurisdiction at least on a daily basis with a complete breakdown of their positions taken in commodity derivatives or emission allowances or derivatives thereof traded on a trading venue and equivalent OTC contracts, as well as of those of their clients and the clients of those clients until the end client is reached, in accordance with Article 26 of Regulation (EU) No .../2014* and, where applicable, of Article 8 of Regulation (EU) No 1227/2011.*
3. *In order to enable monitoring of compliance with Article 57(1), Member States shall require members or participants of regulated markets, MTFs and clients of OTFs to report to the investment firm or market operator operating that trading venue the details of their own positions held through contracts traded on that trading venue at least on a daily basis, as well as those of their clients and the clients of those clients until the end client is reached.*
4. *Persons holding positions in a commodity derivative or emission allowance or derivative thereof shall be classified by the investment firm or market operator operating that trading venue according to the nature of their main business, taking account of any applicable authorisation, as either:*
 - (a) *investment firms or credit institutions ;*
 - (b) *investment funds, either an undertaking for collective investments in transferable securities (UCITS) as defined in Directive 2009/65/EC, or an alternative investment fund manager as defined in Directive 2011/61/EC;*

- (c) *other financial institutions, including insurance undertakings and reinsurance undertakings as defined in Directive 2009/138/EC, and institutions for occupational retirement provision as defined in Directive 2003/41/EC;*
- (d) *commercial undertakings;*
- (e) *in the case of emission allowances or derivatives thereof, operators with compliance obligations under Directive 2003/87/EC.*

The reports referred to in point (a) of paragraph 1 shall specify the number of long and short positions by category of persons, any changes thereto since the previous report, percent of total open interest represented by each category, and the number of persons in each category.

The reports referred to in point (a) of paragraph 1 and the breakdowns referred to in paragraph 2 shall differentiate between:

- (a) *positions identified as positions which in an objectively measurable way reduce risks directly relating to commercial activities; and*
- (b) *other positions.*

5. *ESMA shall develop draft implementing technical standards to determine the format of the reports referred to in point (a) of paragraph 1 and of the breakdowns referred to in paragraph 2.*

...

6. *The Commission shall be empowered to adopt delegated acts in accordance with Article 89 to specify the thresholds referred to in the second subparagraph of paragraph 1 of this Article, having regard to the total number of open positions and their size and the total number of persons holding a position.*

7. *ESMA shall develop draft implementing technical standards to specify the measures to require all reports referred to in point (a) of paragraph 1 to be sent to ESMA at a specified weekly time, for their centralised publication by the latter.*

1. In summary, Article 58 MiFID II requires investment firms, trading venue members and participants, and trading venues to provide data and to produce and publish position reports for commodity derivatives, emission allowances, and derivatives of emission allowances.
2. Additionally, Article 58(3) MiFID II requires that this data is provided to enable the monitoring of compliance with the position limits that are established under Article 57 MiFID II.

Analysis and proposal

Trading venues

3. Article 58 MiFID II requires two separate reports to be produced by trading venues:
4. Article 58(1)(a) MiFID II requires that trading venues produce and make public a weekly report of the aggregate positions in commodity derivatives, emission allowances, and derivatives of emission al-

allowances that are held by certain categories of persons on that trading venue. For the purpose of Article 58, “aggregate” means the summation of all positions in an individual contract that is listed on a trading venue; one report will be prepared for each contract, subject to the *de minimis* thresholds for publication.

5. These reports will be provided by trading venues to their relevant competent authority and to ESMA. For the purpose of identification, these reports are described as ‘**Commitment of Trader Reports**’.
6. ESMA will additionally publish the reports that are submitted by trading venues.
7. Article 58(1)(b) MiFID II requires that trading venues provide a detailed breakdown of positions held by participants of that trading venue, and the participants’ underlying clients, in commodity derivatives, emission allowances, and derivatives of emission allowances to their relevant competent authority on at least a daily basis. These reports are described as ‘**Position Reports to Regulators**’.

Members and participants of trading venues, and other investment firms

8. In order to enable compliance with the position limits regime of Article 57 MiFID II, members and participants of trading venues are required by Article 58(3) MiFID II to provide those trading venues with details of their own positions and their clients’ positions in on-venue contracts. These reports are required on a daily basis.
9. Additionally, investment firms that trade outside a trading venue in commodity derivatives, emission allowances, and derivatives of emission allowances, either for their own account or for clients, are required by Article 58(2) MiFID II to provide a breakdown of their own positions and their clients’ positions that are traded both on trading venues and in equivalent OTC contracts. This information is to be provided to the relevant competent authority for the trading venue of the related on-venue contract.
10. ESMA notes that legal or natural persons that are located outside the EU and that are members or participants of RMs, MTFs or clients of OTFs will be required to report their own positions and those of their clients.
11. Under Article 58(5) MiFID II ESMA is required to draft the format of the Commitment of Trader Reports that will be provided by trading venues under Article 58(1)(a) MiFID II and the format of the Position Reports to Regulators that will be provided by investment firms to the relevant competent authority under Article 58(2) MiFID II.
12. ESMA considers that the efficiency and effectiveness of reporting would be enhanced by standardising the data definitions and the format of the reporting information required by MiFID II, and other Directives, to the greatest extent possible. This will assist investment firms and trading venues with implementation, and reduce the quantity of duplicate reporting that is produced.
13. Article 57(1) MiFID II states, amongst other matters, that position limits do not apply to positions that are held for the reduction of risk relating to commercial activities by non-financial entities. As Article 58(3) of MiFID II requires that the reports made of positions enable monitoring of position limits, it follows that the data fields included within position reports must also include an indicator of whether a position is risk reducing for commercial purposes or not.

Q532: Do you agree that, in the interest of efficient reporting, the data requirements for position reporting required by Article 58 should contain elements to enable competent authorities and ESMA to monitor effectively position limits? If you do not agree, what alternative approach do you propose for the collection of information in order to efficiently and with the minimum of duplication meet the requirements of Article 57?

The basis of position reporting

14. For the purpose of reporting under Article 58(2) MiFID II ESMA considers that a position is the net accumulation of buy and sell transactions in a particular commodity derivative, emission allowance or derivative on an emission allowance at a specific point in time that has yet to be closed out, expired, or exercised, as appropriate to the instrument concerned. An alternative expression of this definition would be the “open interest” that is controlled by a person.
15. Due to the linkage between the position reporting regime and the position limits regime, the same definition of position will carry through to the application of Article 57 MiFID II.

Q533: Do you agree with ESMA’s definition of a “position” for the purpose of Article 58? Do you agree that the same definition of position should be used for the purpose of Article 57? If you do not agree with either proposition, please provide details of a viable alternative definition.

16. In reporting positions, all positions must be reported on a gross basis, indicating whether they are either long or short. Positions should not be netted in the reports. Any subsequent adjustments for the application of the position limits regime of Article 57 MiFID II will be made after the data has been received by the trading venue or competent authority.
17. The requirement on investment firms under Article 58(2) MiFID II for ‘a complete breakdown of their positions’ means that details of all positions in all maturities of all contracts must be provided.
18. For the avoidance of doubt, ESMA notes that the application of any exemptions from the Article 57 MiFID II position limits regime for positions that are held in order to reduce risks directly relating to commercial activities is not to be used for the purpose of Article 58 MiFID II, and therefore all positions must be reported.
19. ESMA considers, on the basis of existing market practice for the recording and reporting of transactions to clients and regulators, that positions that have arisen as a consequence of spread trades or other complex strategies should be reported on a disaggregated basis. This will require the separate reporting of each of the constituent elements that are within the scope of the reporting obligation rather than the reporting of these positions in aggregate.
20. This approach has the benefit of avoiding the necessity for investment firms, trading venues and competent authorities to construct and maintain separate additional position identifiers for all specific strategies and product combinations.

Q534: Do you agree with ESMA’s approach to the reporting of spread and other strategy trades? If you do not agree, what approach can be practically implemented for the definition and reporting of these trades?

Identification of underlying clients

21. Both Article 58(2) and Article 58(3) MiFID II require investment firms, trading venue members and participants to report their own positions and the positions of their clients, down to and including the end-client, in on-venue contracts or in economically equivalent OTC contracts to either a trading venue or directly to a competent authority. This means that it is explicitly stated in MiFID II that the identity of the end-client is passed to the reporting investment firm or the competent authority for Article 58(2) MiFID II or the reporting trading venue member or participant for Article 58(3) MiFID II.
22. For the avoidance of doubt, ESMA notes that Article 58 MiFID II neither requires nor permits an end client to report details of its position directly to either the relevant competent authority or to ESMA.
23. ESMA believes that the appropriate definition of a client for the purpose of Article 58 MiFID II is that a client is a natural person or a legal person to whom an investment firm provides investment or ancillary services.
24. It is envisaged by ESMA that the same method of identification of a person that is used for other areas of MiFID II, such as transaction reporting, is also used for position limits. ESMA proposes following the approach for identifying legal persons used for transaction reporting under MiFID II, which sets the following order of priority:
 - i. LEI;
 - ii. where the legal person is not eligible for a LEI, a BIC shall be used;
 - iii. where the legal person is not eligible to obtain a LEI or BIC, a national code shall be used.
25. For branches, the designation of the parent entity shall be used. The reporting field shall include the designation specifying the particular type of identifier (i.e. LEI, BIC or national code). In cases where a national code is used, the field shall specify what type of national code it is.
26. There is no existing international standardised protocol for identifying clients who may be natural persons. ESMA plans to consider and, if appropriate, follow the approach for transactions reporting under MiFID II, which proposes the use of existing national identifiers, including passport numbers.

Q535: Do you agree with ESMA’s proposed approach to use reporting protocols used by other market and regulatory initiatives, in particular, those being considered for transaction reporting under MiFID II?

Q536: Do you have any specific comments on the proposed identification of legal persons and/or natural persons? Do you consider there are any practical challenges to ESMA’s proposals? If yes, please explain them and propose solutions to resolve them.

27. The requirement on trading venues, competent authorities and ESMA to aggregate together the positions of individual persons that may be held across different investment firms or venues additionally requires the use of a common identifier of a person. It is also necessary for the common identifier to enable the monitoring of the position limit requirements that are set out in Article 57 MiFID II.
28. A strict reading of the requirements of Article 58 MiFID II means that the ultimate, “top-most”, investment firm that is reporting to a competent authority or a trading venue must obtain, in order to be able to report it, the identity of the ultimate end client. If the client of an investment firm is itself

an investment firm that has, in turn, its own underlying clients ESMA recognises that there are issues of confidentiality and commercial interest in passing these client identification details upwards through the chain of account relationships that should be given due regard. This could be addressed in a number of ways.

29. One alternative would be to require all investment firms in the execution chain to pass upwards the end-client details in “plain language”, i.e., the LEI of a legal person or identification of the natural person that is the ultimate position holder. This has the advantage of simplicity, as it simplifies the aggregation of the positions of the end-client for the production of position reports and the application of the Article 57 MiFID II position limits regime. It would not require further fields to be included in the report in addition to those that are described below. The primary disadvantage of this alternative is the disclosure of the end-client identity to all of the intermediaries in the transaction chain.
30. A second alternative would be to follow the format of the proposed report given below, but in place of a “public” identifier of the end-client, the report would contain the end-client’s internal client identifier (e.g. “ABC12345”) at the investment firm that ultimately holds the end-client’s account. This has the advantage that, subject to the transparency of the internal code itself, the end-client’s identity is not disclosed to any intermediary involved in the transaction chain.
31. This approach however has a number of disadvantages. It would require the use of additional data fields in the report. At a minimum, fields would have to indicate that an “internal code” was being used, and would have to give the identification of the ultimate investment firm to enable a cross-reference to convert the internal code back into a public identifier in order to aggregate positions that may be held across a number of investment firms. It further imposes additional operational complexity and associated cost on the competent authority and ESMA in maintaining and using the necessary data and look-up mechanism to decode the received reports.
32. A third approach may be a hybrid between the two previous approaches. The position report provided by the investment firm to the trading venue or to the relevant competent authority may include the identification of its own immediate client and an indicator on whether that client is itself an investment firm. That firm would also be required to provide a position report to the trading venue or competent authority, giving the positions that it holds and on whose behalf. This would identify whether they are proprietary positions for its own account or positions held on behalf of its own client. It would also need to include a further indicator of whether its client was an investment firm. This process would have to be repeated until the investment firm that holds the ultimate end-client account is reached.
33. The advantage of this approach is again that each investment firm only discloses the details of its immediate client. There are again a number of disadvantages of this approach, of which the primary one is the risk of double-counting of positions by the trading venue or the competent authority due to the multiple potential reporting that could take place of the same position as separate reports are made by the various participants in the chain. It also imposes on the intermediating investment firms an additional reporting obligation directly to the trading venue or competent authority with whom they may have no other direct relationship. For the trading venue or competent authority it imposes a significant operational challenge in identifying the related position reports, and eliminating any double counting, prior to the aggregation of positions for the end-client that may anyway be held with different investment firms.

Q537: What are your views on these three alternative approaches for reporting the positions of an end client where there are multiple parties involved in the transaction chain? Do you have a preferred solution from the three alternatives that are described?

Q538: What alternative structures or solutions are possible to meet the obligations under Article 58 to identify the positions of end clients? What are the advantages or disadvantages of these structures?

Where to report positions under Article 58(2) MiFID II

34. Where the same contract is traded on multiple trading venues in different member states, then the positions should be reported to the central competent authority where the most significant volume of on-venue contract is traded. ESMA proposes that for consistency and efficiency the central competent authority that has been determined for the purpose of implementing position limits under Article 57 MiFID II should be used for the purpose of Article 58(2) MiFID II.
35. ESMA believes that due to the practical difficulties in establishing accurate data on the location of the trading of commodity derivatives outside a trading venue, the determination of the competent authority to which position reports are made should be decided solely by the volume of activity undertaken on trading venues.

Q539: Do you agree with ESMA's proposal that only volumes traded on-exchange should be used to determine the central competent authority to which reports are made? If you do not agree, what alternative structure may be used to determine the destination of position reports?

Identification of financial instruments

36. Position reporting will need to be granular enough to report each individual maturity held in each commodity derivative, emission allowance or derivative on an emission allowance. Competent authorities will also need to link together on-venue contracts which are the "same" on-venue contracts and economically equivalent OTC contracts that are related to them.
37. Article 58(3) MiFID II requires that position reporting information should be used to enable the monitoring, and subsequent application, of position limits under Article 57 MiFID II. The relevant competent authorities and ESMA will aggregate positions arising from on-venue transactions and economically equivalent OTC positions together in order to achieve this goal.
38. ESMA considers that, where appropriate, position reporting requirements should, to the greatest extent possible, seek to use reporting formats from other market or regulatory initiatives. In particular, position reporting should seek to use reporting formats that are in place or being considered for EMIR trade reporting under EMIR or for transaction reporting under MiFID II.
39. However, there may be limits to the extent to which this is possible, as such reports focus on transaction rather than position reporting and do not necessarily cover OTC transactions. There are certain position reporting requirements which are not covered by existing or new market and regulatory initiatives.
40. For example, for EMIR trade reporting:

- i. product identification under EMIR trade reporting may not be granular enough to enable regulators to determine whether position limits in specific contracts have been breached;
 - ii. product identification under EMIR trade reporting does not incorporate the concept of linking positions in on-venue contracts with “economically equivalent OTC contracts”.
41. ESMA proposes that in order to support the position reporting of investment firms trading venues will be required to provide reference data on on-venue and economically equivalent OTC contracts. This has the benefits of efficiency of common usage and systems implementation, a simplification of reporting requirements, and assists in facilitating position limits monitoring.
 42. There is currently no universally adopted and harmonised set of product codes for identifying commodity derivatives. The two primary alternatives are the use of Alternative Instrument Identifier codes (AII) or the use of ISIN codes. A third, less optimal and more complicated alternative is to use a combination of both. ESMA does not propose the use of the third alternative.

Q540: Do you agree that position reporting requirements should seek to use reporting formats from other market or regulatory initiatives? If not mentioned above, what formats and initiatives should ESMA consider?

Q541: Do you agree that ESMA should require reference data from trading venues and investment firms on commodity derivatives, emission allowances, and derivatives thereof in order to increase the efficiency of trade reporting?

43. In considering what technical arrangements could best support the position reporting regime required by MiFID II, ESMA is aware of the work that TRs have performed to implement the trade reporting of exchange traded and OTC derivatives under EMIR. ESMA believes that trade repositories may be able to support the reporting of on-venue and economically equivalent OTC positions for the purpose of MiFID II. This service would, as with reporting under EMIR, be provided on a commercial basis by the trade repositories to the relevant investment firms.
44. An alternative approach to the development of a position reporting infrastructure would be to use the reporting facilities of Approved Reporting Mechanisms (“ARMs”) that are established for the purpose of position reporting.
45. If either, or a combined, approach is adopted where the existing market infrastructure is utilised, NCAs would have to ensure that they have appropriate powers to maintain oversight of the functions that are out-sourced or delegated by investment firms.

Q542: What is your view on the use of existing elements of the market infrastructure for position reporting of both on-venue and economically equivalent OTC contracts? If you have any comments on how firms and trading venues may efficiently create a reporting infrastructure, please give details in your explanation.

Option contracts

46. In order to make the reported data on option positions meaningful for the purposes of assessing compliance with position limits, ESMA believes that options positions should be reported on a gross basis. In establishing compliance with a position limit under Article 57 MiFID II a conversion will be performed by the trading venue or competent authority using a pre-defined delta value to determine an equivalent futures position. Persons that are required to comply with the Article 57 MiFID II posi-

tion limit regime will also need to use a consistent method for the conversion of option positions in order to ensure that they remain within the position limits that apply to their activities.

Q543: For what reasons may it be appropriate to require the reporting of option positions on a delta-equivalent basis? If an additional requirement to report delta-equivalent positions is established, how should the relevant delta value be determined?

Format of the position report

47. ESMA considers that to ensure the appropriate collection of data to meet the objectives of MiFID II a template of the position report required under Article 58(1)(b) MiFID II should contain the following fields:

	Field	Explanatory comments
1.	Date of the business day of the reported positions	The report is required to be provided by trading venues to competent authorities daily. It therefore is expected to be produced at the close of the business day and submitted within the following 24 hours
2.	Reporting investment firm ID	LEI or interim LEI
3.	End client ID	LEI or interim LEI for legal entities <i>or</i> other IDs for natural persons. Note: if the position is held as a proprietary position of the reporting firm, this field will be identical to field 2 above
4.	Unique product identifier of on-venue contract	ESMA proposes that AII should be used. See field 5 below for treatment of economically equivalent OTC contracts
5.	Trading venue identifier	Either the Market Identifier Code (“MIC”) or for off-exchange positions in economically equivalent OTC contracts, the code “XOFF”
6.	Position quantity	Position expressed in the number of contracts
7.	Indicator of whether position is long or short	Indicated by the use of “+” (long) or “-” (short)
8.	Indicator of whether the position is risk reducing in	Indicated by the use of “yes” or “no”. Note: this field is not used for the purpose of Article 58 MiFID II but is required

	relation to commercial activity	for Article 57 MiFID II
--	---------------------------------	-------------------------

Q544: Does the proposed set of data fields capture all necessary information to meet the requirements of Article 58(1)(b) MiFID II? If not, do you have any proposals for amendments, deletions or additional data fields to add the list above?

Format of the Commitment of Trader Reports

48. Article 58(1)(a) MiFID II requires the Commitment of Trader Report that is prepared by trading venues and made public each week to specify:

- i. “the aggregate positions held by the different categories of persons for the different commodity derivatives or emission allowances or derivatives thereof traded on [a] trading venue;
- ii. specifying the number of long and short positions by such categories;
- iii. changes thereto since the previous report;
- iv. the percentage of the total open interest represented by each category and the number of persons holding a position in each category”.

49. ESMA believes that a *pro forma* Commitment of Trader report should be constructed as follows:

{Name of trading venue}		{Date of the report}									
{Commodity derivative contract}											
Current week's report		Investment firms		Investment funds		Other financial institutions		Commercial undertakings		Emissions operators	
	Total	Long	Short	Long	Short	Long	Short	Long	Short	Long	Short
	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}
Changes from last week's report (+/-)	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}
Percentage of open interest	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}



number of position holders in each category	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}	{value}
---	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------	---------

50. ESMA notes the importance of anonymity in the publication of the position reports in order to preserve the confidentiality of traders. It should not be possible to calculate the size of the holding of any specific market participant on the basis of the published position reports alone.

Q545: Are there any other fields that should be included in the Commitment of Traders Report published each week by trading venues other than those shown above?

8. Market data reporting

8.1. Obligation to report transactions

Background/Mandate/Empowerment

1. Article 26(9) of MiFIR requires ESMA to develop technical standards in relation to the obligation to report transaction:

Article 26(9), MiFIR

ESMA shall develop draft regulatory technical standards to specify:

- (a) Data standards and formats for the information to be **reported** in accordance with paragraphs 1 and 3, including the methods and arrangements for reporting financial transactions and the form and content of such reports;*
- (b) The criteria for defining a relevant market in accordance with paragraph 1;*
- (c) The references of the financial instruments bought or sold, the quantity, the dates and times of execution, the transaction prices, the information and details of the identity of the client, a designation to identify the clients on whose behalf the investment firm has executed that transaction, a designation to identify the persons and the computer algorithms within the investment firm responsible for the investment decision and the execution of the transaction, **a designation to identify the applicable waiver under which the trade has taken place, the** means of identifying the investment firms concerned, the way in which the transaction was executed, **■** data fields necessary for the processing and analysis of the transaction reports in accordance with paragraph 3; **and***
- (d) The designation to identify short sales of shares and sovereign debt as referred to in paragraph 3;*
- (e) The relevant categories of financial instrument to be reported in accordance with paragraph 2;*
- (f) The conditions upon which legal entity identifiers are developed, attributed and maintained, by Member States in accordance with paragraph 6, and the conditions under which those legal entity identifiers are used by investment firms so as to provide, pursuant to paragraphs 3, 4 and 5, for the designation to identify the clients in the transaction reports they are required to establish pursuant to paragraph 1;*
- (g) The application of transaction reporting obligations to branches of investment firms;*
- (h) What constitutes a transaction and execution of a transaction for the purposes of this Article.*
- (i) When an investment firm is deemed to have transmitted an order for the purposes of paragraph 4.*

What constitutes a transaction and execution of a transaction

2. Article 26(1) of MiFIR requires investment firms executing transactions in financial instruments to submit reports to the competent authority with details of those transactions. As set out in Article 24 and Recital 32 of MiFIR, those details should enable the NCAs to detect and investigate potential instances of market abuse, and to monitor the fair and orderly functioning of markets and investment firms' activities.
3. The concept of 'execution' is a crucial element in defining the scope and application of the obligation to report transactions under MiFIR. The term 'execution' is widely used throughout MiFID II and MiFIR in various forms, however the proposals which ESMA has set out below should be strictly read as only applying to defining 'execution of a transaction' and a 'transaction' for the purposes of transaction reporting. The proposals on 'execution' and 'transaction' described in this section do not affect the operation of other areas of MiFID II or MiFIR such as best execution obligations or the scope of what constitutes an investment service or activity.
4. The notion of 'execution' for the purposes of transaction reporting is a tailored concept because it is designed to capture all relevant information about activities and transactions which may potentially constitute market abuse. To detect and investigate market abuse, NCAs are interested in actions at a specific point in time which result in changes to an investment firm's position or that of their client. Those actions do not include activities related to settlement or clearing.
5. Further to what was set out previously in Directive 2004/39/EC and subsequent guidance produced by CESR (now ESMA), ESMA believes that determining what constitutes a transaction and 'execution' of a transaction will provide further clarity as to what firms' reporting obligations are in certain scenarios such as the following:
 - i. where there are several investment firms in a transaction chain and not every investment firm transmits the relevant information (eg. client information) along the chain;
 - ii. where investment firms issue instructions pursuant to investment decisions they make on behalf of clients under a discretionary mandate and these result in a transaction. It is important for NCAs to receive information where investment firms act under a discretionary mandate and receive it in a consistent way in order to successfully automate the flagging up of potentially abusive transaction reports and effectively monitor for market abuse; or
 - iii. where investment firms make modifications during the life of existing derivatives contracts such as credit default swaps (lifecycle events).
6. ESMA believes certain actions, which might not have been clearly foreseen or referred to at the time the Directive 2004/39/EC and subsequent CESR guidance were made, need to be reported in order for NCAs to carry out the regulatory functions contemplated in Article 24 of MiFIR. Furthermore, this determination is also taking into account the context set out in Article 26(4) of MiFIR.
7. Therefore, ESMA has set out a number of principles for determining whether an investment firm has executed a transaction for the purposes of Article 26 of MiFIR. To assist firms in understanding the scope of their reporting obligations, ESMA has also outlined a list of actions in paragraph 15 which are not considered execution of a transaction for the purposes of Article 26 of MiFIR.

'Transaction'

8. ESMA considers that for the purpose of Article 26 of MiFIR, a ‘transaction’ means any change (not related to corporate actions or valuations) in an investment firm’s position and/or their client’s position in a reportable financial instrument.¹⁸¹

‘Execution’ of a transaction

9. ESMA considers that the concept of ‘execution’ of a transaction for the purposes of Article 26 of MiFIR should not be limited to transactions concluded between the final intermediary (in a chain of intermediaries) and the trading venue or investment firm where the order was ultimately filled. ‘Execution of a transaction’ for the purposes of Article 26 is a broader concept than just market-side trades and (in a chain of intermediaries) covers the actions necessary for bringing about the transaction concluded between the final intermediary and the trading venue or investment firm where the order was ultimately filled.
10. For the purposes of Article 26 of MiFIR, ESMA defines ‘execution’ as any action that results in a transaction (i.e. a change in the investment firm’s position and/or its client’s position in a reportable financial instrument) and also includes compressions¹⁸².
11. ESMA is proposing that these actions will include:
- i. purchases or sales of a reportable financial instrument;
 - ii. assignments, novations, terminations¹⁸³ (totally or partially) of a reportable financial instrument, compressions¹⁸⁴ or entering into a derivative contract in a reportable financial instrument;
 - iii. exercises of options, warrants or convertible bonds; and
 - iv. when acting under a discretionary mandate on behalf of a portfolio or on behalf of a client, undertaking any of the actions in (a) to (c) or instructing another party to do any of the actions in (a) to (c), pursuant to an investment decision by the investment firm;
- irrespective of whether or not:
- v. the action was performed directly by the investment firm itself or through a third party; or
 - vi. it took place on a trading venue; or
 - vii. the investment firm undertook any of the above actions as principal on own account (either on its own behalf or on behalf of a client) or as agent for the account of, and on behalf of a client.

¹⁸¹ In the case of options, this also includes the ‘potential’ a change of position. This is particularly relevant in the case where an investment firm enters into an option contract. At that date, the investment firm may not know with certainty that entering into the option will lead to a change in position because this is contingent on the option being exercised at a later point in time. Therefore this clarification is to confirm that the entering into option contracts is considered a reportable transactions.

¹⁸² Compressions are specifically included as a form of execution because even though a compression does not itself lead to a change in position in the financial instrument it is required in order to be able to report the lifecycle event.

¹⁸³ Note that ‘termination’ refers to any termination before the expiry date.

¹⁸⁴ Where possible this should be aligned with ESMA advice provided under Article 25a.

12. For the avoidance of doubt, ESMA also regards the following to fall within the meaning of ‘execution’ for the purposes of Article 26 of MiFIR:
- i. issuance, allotment or subscription, placements and the exercise of pre-emption rights, provided that the relevant financial instrument has been admitted to trading or a request for admission to trading has been made;
 - ii. transactions conducted within the same investment firm where there is a change in beneficial ownership or where the firm hits its own order on a trading venue;
 - iii. transactions between different legal entities belonging to the same group. This includes transactions between an investment firm and one of its subsidiaries or between two subsidiaries of the same investment firm;
 - iv. transactions where an investment firm transmits an order to a third party which is subsequently filled;¹⁸⁵
 - v. buy back contracts entered into in the context of a buy-back programme;
 - vi. transactions in the rights to scrip dividends; and
 - vii. repurchases under repurchase agreements (repos and reverse repos)¹⁸⁶.
13. ESMA notes that according to Article 2(1)(i) of MiFID II, collective investment undertakings and pension funds whether coordinated at European Union level or not and the depositaries and managers of such undertakings are exempted from MiFIR and therefore from transaction reporting. However, investment firms providing portfolio management services which do not fall under this specific exemption shall be required to report when they execute transactions within the meaning of Article 26 of MiFIR.

Q546: Do you agree with ESMA’s proposal for what constitutes a ‘transaction’ and ‘execution of a transaction’ for the purposes of Article 26 of MiFIR? If not, please provide reasons.

Q547: Do you anticipate any difficulties in identifying when your investment firm has executed a transaction in accordance with the above principles?

Actions which are not reportable under Article 26 of MiFIR

14. In order to avoid imposing unnecessary administrative burden on investment firms, actions or agreements not susceptible to market abuse should be excluded from the transaction reporting obligation.

¹⁸⁵ Even though we consider transmission of an order to be ‘execution’, under certain circumstances this is not reportable (see the relevant section of the Discussion Paper entitled ‘Transmission of an order’ for further information).

¹⁸⁶ The decision on the inclusion of these types of transaction is closely linked to the developments in the negotiation of the European Commission’s proposal for a regulation on reporting and transparency of securities financing transactions (COM (2014)40 Final)

15. On this basis, ESMA proposes that the following actions shall not be reportable for the purposes of Article 26 of MiFIR:
- i. issue of scrip dividends and the creation and redemption of exchange traded funds;
 - ii. redemptions or expiration of securities;
 - iii. using financial instruments as collateral;
 - iv. give ups for settlement/clearing;
 - v. corporate events, including mergers, takeovers and stock splits. This will also include similar instances where conditions for the transaction have been clearly pre-established and published, such as exchange bids on bonds, structured finance products, convertible/exchangeable bonds and certificates, where they meet this condition; and
 - vi. transactions within the same legal entity which are purely internal – i.e. are not executed on a trading venue and do not have any change in beneficial ownership, unless reporting is required in order to correctly reflect the change in a firm's position.
16. Investment firms shall only submit transaction reports for actions that are considered reportable according to the above principles and where those actions involve reportable instruments that fall within the scope of Article 26(2) of MiFIR. Where an investment firm submits a report for a non-reportable action or non-reportable instrument, it shall cancel these transaction reports without delay.

Q548: Is there any other activity that should not be reportable under Article 26 of MiFIR?

Transmission of an order

17. Investment firms that execute transactions have an obligation to transaction report under Article 26(1) of MiFIR. This includes for example, firms that pass on details of orders received from their clients to other investment firms and firms acting on a discretionary basis that place orders with other investment firms.
18. However, under Article 26(4) of MiFIR an investment firm that transmit orders to another investment firm may choose either:
 - i. to transmit all of the specified details to the investment firm they are passing the order to; or
 - ii. if it does not transmit all of the specified details to the receiving firm, to itself report.
19. Where the firm elects to send a transaction report itself it must include a flag in the report indicating that the transaction was for a transmitted order.
20. In order to avoid confusion, and to ensure that the competent authority receives all of the information required and does not receive duplicate reports identifying the same client for whose benefit the order was filled from both the transmitting and receiving firms (which would provide a misleading impression of the client's change in position), it must be clear to both the transmitting firm and the receiving firm whether or not transmission of an order has taken place for the purposes of Article 26(4) of MiFIR.
21. It is proposed that an order is deemed to have been transmitted **for the purposes of Article 26(4) of MiFIR** if and only if all of the following conditions are met:
 - i. the information specified in paragraphs 1 and 3 of Article 26 of MiFIR has been sent to the receiver by the transmitting firm¹⁸⁷. For example, this would include:
 - a. information on the financial instrument;
 - b. buy/sell indicator;
 - c. quantity and price and any conditions such as limit price, minimum quantity etc.;
 - d. client information (designation + additional details)¹⁸⁸;
 - e. short selling information relating to the client; and
 - f. where the order is aggregated for several clients the information must be provided for each allocation.
 - ii. there is a written agreement between the order transmitter and the receiver that specifies the circumstances under which the relevant details will be deemed to be passed and confirms that the

¹⁸⁷ Not all the fields required under paragraphs 1 and 3 of Article 26 of MiFIR will necessarily be applicable for a given order.

¹⁸⁸ This includes information on the decision maker as well as the beneficiary if these are different.

receiver is an EEA investment firm with reporting responsibilities¹⁸⁹ and that in the circumstances specified the receiver will send a transaction report that contains the details of the information passed to them by the order transmitter; and

- iii. the details have been passed in accordance with the agreement; and
 - iv. the transmitting firm must have adequate systems and controls to ensure that the information it transmits is complete and accurate.
22. The intention is that the NCA will receive all the necessary details of the transaction, regardless of whether the report is made by the order transmitter or by the receiving firm.
23. If a transmitting firm fulfils the conditions in i-iv then the order shall be deemed to have been successfully transmitted and the transmitting firm shall not transaction report.
24. If a transmitting firm does not fulfil the conditions in i-iv then it must transaction report.
25. If any of the conditions are not met, the receiving firm shall report the order transmitter as their client/counterparty.

Q549: Do you foresee any difficulties with the suggested approach? Please elaborate.

The fields of the transaction report

26. Under Article 26 of MiFIR, the number of fields which must be populated in a transaction report will increase. This is due to the expanded scope of reportable financial instruments as set out in Article 26(2) of MiFIR and to accommodate the requirements stated in Article 26(3) of MiFIR. For example, Article 26(3) of MiFIR requires the inclusion of new flags such as a short selling flag, waiver flag and a commodity derivatives flag in transaction reports. ESMA also has a mandate to specify the data fields necessary for the processing and analysis of transaction reports.
27. Maximum harmonisation of reporting obligations under MiFIR implies that all investment firms will have to report in the same way to their NCAs regardless of the Member State in which they are located. This will in particular prohibit national authorities from requiring additional reporting fields. Harmonisation will entail great benefits for the purpose of high level supervision in the EU.
28. Article 26(9) (c) of MiFIR lists some specific set of fields that are to be defined through RTS drafted by ESMA. These include:
- i. the references of the instruments bought or sold;
 - ii. the quantity, the dates and times of execution, the transaction prices;
 - iii. the information and details of the identity of the client, a designation to identify the clients on whose behalf the investment firm has executed that transaction;

¹⁸⁹ This includes EEA branches of third country firms.

- iv. a designation to identify the persons and the computer algorithms within the investment firm responsible for the investment decision and the execution of the transaction;
 - v. a designation to identify the applicable waiver under which the trade has taken place;
 - vi. the means of identifying the investment firms concerned; and
 - vii. the way in which the transaction was executed.
29. ESMA has produced a table of fields (see Annex 8.1.1) to provide firms with an indication of the type of fields which may be reportable under MiFIR.
30. ESMA recognises that there might be technical complexities and legal barriers around the population of the fields and will consider firms' specific responses on particular fields.

Q550: We invite your comments on the proposed fields and population of the fields. Please provide specific references to the fields which you are discussing in your response.

Client identification

Legal requirements and background

31. According to Articles 26(3) and 26(9)(c) of MiFIR, transaction reports submitted by investment firms shall include 'details of the identity of the client' and 'a designation to identify the clients on whose behalf the investment firm has executed the transaction'.
32. This represents a significant change from current transaction reporting obligations under Directive 2004/39/EC as Article 26(9) (c) of MiFIR makes reporting of client designations and details mandatory. Previously, investment firms were not generally required under the EU legislative framework to report client details in transaction reports. However, Member States had the power to exercise national discretion and impose this as an additional requirement on investment firms within their jurisdiction and some Member States chose to do so. Therefore, under Directive 2004/39/EC, the decision to collect client details was made at an individual Member State level whereas under MiFIR, similar standards and requirements will now apply to identifying clients across the EEA.

Purpose of the field and supervisory use

33. Article 24 of MiFIR states that NCAs 'shall monitor the activities of investment firms to ensure that they act honestly, fairly and professionally and in a manner which promotes the integrity of the market'.
34. Transaction reporting is therefore not only used for market abuse surveillance but also for achieving and monitoring market integrity. By including a designation to identify the client in transactions executed by investment firms, MiFIR will allow a more thorough and efficient monitoring of the market. These new details, providing complete, unified and robust client identification, will grant NCAs with ready access to, and more detailed information about, trading and will enhance the surveillance of the market.

35. In addition to establishing a designation to identify the client, MiFIR enables NCAs to obtain additional information and details to supplement the client identifier. This information may include for instance, the first name and surnames of the natural person or the name of the legal entity, date of birth and address information.
36. As a result, the client identifier will act as a consistent and robust means to uniquely identify the client involved in the transaction, while the additional client information and details will provide meaningful information to NCAs about the client which the identifier alone cannot provide. This additional client information will help NCAs to clearly identify the client, cross-check it and detect patterns that would not be evident from the client codes themselves.

Assigning client designations

Natural persons

37. At present, there is a lack of a single harmonised client identifier that applies uniformly across the EEA for natural persons that trade on financial markets. The cost of developing, implementing and maintaining an EEA-wide client identifier for the purposes of transaction reporting is likely to be significant. As a result, ESMA considers that an appropriate solution to client designation would be to leverage currently existing national identifiers which are already being used in Member States (such as national ID numbers, taxpayer numbers and social security numbers) rather than advocating a single EEA-wide client identifier.
38. For natural persons the attribution of a code for the purpose of transaction reporting would be based on four different tiers depending on the available information and details for each client:
 - i. **tier 1:** If the client is an EEA national, the client shall be identified using a unique national number based on the **client's nationality**;
 - ii. **tier 2:** If the client is not an EEA national but resides (partly or wholly) within the EEA, the client shall be identified using a unique national number based on the **client's residency** within the EEA;
 - iii. **tier 3:** Where the client cannot be identified using a unique EEA national number (such as for non-EEA nationals that are also not resident within the EEA), the client shall be identified using their **passport number**;
 - iv. **tier 4:** As a final resort, clients which cannot be identified by any of the above means shall be identified using a **unique client identifier assigned by the investment firm**.
39. ESMA believes that as a starting point, all clients should ideally be identified according to a unique national number based on their nationality if they are an EEA national (Tier 1). This is because a client's nationality is a more robust and stable basis for a client identifier because it is less likely to change over time compared to residency status. However, not all clients are nationals of an EEA country. Therefore Tier 2 covers clients which are not EEA nationals but may live within the EEA and may therefore possess a unique national number. In those cases, the client must be identified using a unique national number based on their country of residence within the EEA.
40. Under Tier 2, there can be complicated situations in relation to a client's residency. For example, a client may live in more than one country. In that case:

- i. if the client has a place of residence in more than one EEA country, then the client must be identified according to a unique national number for the first EEA country, sorted in alphabetical order according to ISO codes for countries (ISO codes 3166);
 - ii. if the client lives in an EEA country as well as another country which is outside of the EEA, then the client must be identified according to the unique national number of the EEA country in which they reside (even if this is not their principal place of residence).
41. A passport number will be used to deal with situations where the client cannot be identified using a unique national number within the EEA (tier 3).
42. A client should only be identified with a unique internal client identifier that has been assigned by the investment firm (tier 4) where the client cannot be identified using a unique national number or passport.
43. If an internal client identifier needs to be used, this client identifier must be unique, consistent and persistent in time. This means:
 - i. an exclusive designation must be given to each client;
 - ii. once a designation has been assigned to a client, the same designation should always be used when referring to that client;
 - iii. the client designation must be unique over time. For example, this would mean that the same client designation should not be used to identify any other clients (present or future), even if the original client is no longer a client of the investment firm.
44. ESMA intends for this four tier procedure to be applied sequentially. This means the client must be identified under tier 1 first and only where the tier 1 requirements cannot be met, can the client be identified under tier 2 and so on. This means that clients cannot pick and choose between which form of identification they provide to an investment firm. In this way, client identifiers will be assigned consistently across the EEA.
45. For a further explanation of how client identifiers would be assigned (see the diagram in Annex 8.1.2). Some examples include:
 - i. example 1: Client A is a Spanish national: In this situation, Client A shall be identified according to the unique national number that is in use in Spain;
 - ii. example 2: Client B is a U.S client who lives in Germany and France. Client B will be identified according to the unique national number used in Germany because Germany's ISO code (DE) is first in alphabetical order. If the client does not have a German national number then they shall be identified using the French national number. If Client B does not have a French national number, they shall be identified according to their passport number. Finally, if Client B does not have a passport number, they shall be identified using a unique client identifier assigned by the investment firm.
46. This client information would then be included in each transaction report involving the client. For some Member States, several types of national numbers may be listed. In such a case, the identifier

shall be chosen according to the priority level in the list ID1, ID2, etc. For instance: ID1 shall be used; in the exceptional case where ID1 is not available, ID2 shall be used, and so on.

47. Investment firms will need to adopt robust onboarding procedures to ensure that they follow the list hierarchy for each of their clients. Client identifiers that comply with the list of acceptable national numbers will also have to be assigned for existing clients of the investment firms.
48. When applied properly, this set of rules will mean that each client will be identified consistently across the EEA. For example, a client with Austrian nationality who opens a client account at a UK investment firm and at a French investment firm will be identified using their Austrian national ID number at both the UK investment firm and the French investment firm.

Legal persons

49. Where the client is a legal person, the investment firm must always identify the client using the Legal Entity Identifier (LEI), as defined by ISO 17442, where the legal person is eligible to receive a LEI. In line with Article 26(6) of MiFIR, ESMA will develop guidelines about the implementation of LEI in Europe. Where the client is eligible to receive a LEI but has not yet applied for one, the client must apply for an LEI before it can commence or continue trading. If the legal person is not eligible to receive an LEI, a Business Identifier Code (BIC), as defined by ISO 9362, shall be used.
50. In exceptional cases, and only for non-EU entities, where the legal person cannot be identified with either a LEI or BIC, the investment firm shall then use any national code available in the EEA country where its head-office is established; in this case, the investment firm must specify what type of national number has been used.
51. The client designation attribution process for legal persons would therefore be based on the following mandatory prioritized list:
 - i. LEI;
 - ii. where the legal person is not eligible for a LEI, a BIC shall be used;
 - iii. where the legal person is not eligible to obtain a LEI or BIC, a national code shall be used.
52. For branches, the designation of the parent entity shall be used. The ISO 3166 two character code of the host Member State of the branch shall also be given as discussed in section on “The application of transaction reporting obligation to branches of investment firms.
53. The reporting field shall include the designation specifying the particular type of identifier (i.e. LEI, BIC or national code). In case a national code is used the field shall specify what type of national code it is.

Other issues

54. Some issues require further consideration, including how to identify joint accounts, power of attorney and accounts held on behalf of minors.
55. These types of client accounts share similar characteristics. They each involve accounts where there is more than one relevant ‘client’ in the sense that the person who benefits from trades done on the ac-

count (beneficiary) is not necessarily the same person who has made the decision to trade on that account (decision maker). For example, in cases of power of attorney or accounts held on behalf of minors, the person making the decision to invest (e.g. person with power of attorney, parent or legal guardian etc.) is not the same as the beneficiary to the account (e.g. the minor). Nevertheless, for market abuse monitoring purposes, NCAs need to receive information about both the decision maker and the beneficiary. This enables NCAs to detect cases where a person is trading for the benefit of their own account or for the benefit of others.

Additional information regarding the identity of the client

56. Further to the client designation previously discussed, Article 26(9)(c) of MiFIR mandates ESMA to prepare technical standards specifying ‘the information and details of the identity of the client’.
57. ESMA considers appropriate to require additional information and details consisting of the client’s first name and surnames.
58. In addition, ESMA is considering requiring the following data regarding client information and details:
 - i. address of residence, including country, city, postcode, street; and
 - ii. date of birth.
59. ESMA considers that requiring the two data items a) and b) above would be especially important in the absence of a robust identification of clients through national ID codes.
60. In addition, this information helps NCAs to identify connections between persons of interest as well as cross reference it with other information such as insider lists. Currently, this information is obtained by NCAs on an ad hoc request basis. By requiring this information in transaction reports, the client details will be directly available to NCAs without having to make frequent requests to investment firms as is currently the case under Directive 2004/39/EC. This will reduce the administrative burden on NCAs and investment firms involved in regularly sending and responding to those requests for information and will facilitate a more expeditious and effective surveillance process.

Confidentiality requirements and data protection

61. ESMA is conscious that any solution that is developed for client identification in transaction reports has to be compliant with all relevant European legislation on data protection. In particular Directive 95/46/EC “on the protection of individuals with regard to the processing of personal data and on the free movement of such data” requests that Member States “shall protect the fundamental rights and freedoms of natural persons, and in particular their right to privacy with respect to the processing of personal data” (Article 1).
62. MiFIR reporting obligations fall mostly under the exemption cases foreseen by the Directive (Article 13) such as “monitoring, inspection or regulatory function”. MiFIR implementation shall nonetheless take into account that personal data are to be “processed fairly and lawfully”, “collected for specified, explicit and legitimate purposes” and “accurate, relevant and not excessive” (Article 6).
63. In addition, significant attention shall be paid to ensuring confidentiality and protection of the data when transmitted in the transaction report or when exchanged among CAs. The confidentiality re-

quirements are already strong for current MiFID reporting but they shall be reinforced and further adapted to the processing of personal data through the future transaction reporting regime. The technical, operational and organizational arrangements related to confidentiality and security shall be taken into account while defining the methods and arrangements for reporting financial transactions as discussed in section on data standards and formats for the information to be reported.

Q551: Do you have any comments on the designation to identify the client and the client information and details that are to be included in transaction reports?

The “Trader ID” and the “Algo ID”

The “Trader ID”

- 64. According to Recital 34 of MiFIR, the identification of the persons responsible for the decision making and trade execution enhances the role of transaction reports as a market monitoring tool. NCAs will have immediate visibility on who has carried out these functions in relation to the transaction without having to gather this type of information from the investment firms on an ad-hoc basis.
- 65. Moreover, capturing the above information in transaction reports enables NCAs to detect instances where the same person within an investment firm has been involved in suspicious trading¹⁹⁰.
- 66. Since the persons responsible for the investment decision might not necessarily be the persons executing the transaction, these two sets of information will have to be displayed separately and therefore several new fields would have to be created in a transaction report.
- 67. The requirement applies to persons within the investment firm and as such where the investment decision is made by a person outside of the investment firm such as the client, this field would not be applicable. As an example, in some situations, the investment firm might provide advice or recommend certain investments to the clients, but the final decision rests with the clients. This would be treated as an execution-only transaction which means that the field for the ‘person within the investment firm responsible for the investment decision’ would not be applicable.¹⁹¹

Scenarios	Person within the investment firm responsible for the investment decision	Person within the investment firm responsible for the execution
Agency Capacity (Execution only) The client contacts the investment firm to place an order where the client specifies instrument, price, volume and/or any other element	This field will not be applicable	a) Trader who worked the order (manually worked orders)
Agency Capacity (Discretionary mandate) An investment manager has a	Investment manager (usually the decision making is down to an individual even	b) Trader who pressed the

¹⁹⁰ Under the current transaction reporting requirements, any suspicious trading activity is attributed to the firm as a whole since there is insufficient granular information about the actual individuals involved in the transactions.

¹⁹¹ ESMA is currently considering whether fields which are not applicable should be left blank or populated with a code such as ‘NA’.

discretionary mandate to make investment decisions on behalf of the client (usually high net worth individuals or funds)	though the head of desk might have some oversight)	button to initiate the execution (e.g. person who presses the button to submit the order to the order management system ¹⁹²) c) If an algorithm was responsible for execution, this field will not be applicable.
Principal Capacity (Transactions not triggered by client orders) The investment firm trades exclusively for its own account	- Individual proprietary trader - If an algorithm made the investment decision, this field will not be applicable	
Principal Capacity (Transactions triggered by client orders) • Back to back transactions in response to a client order	<u>Market side</u> : same indication as for the principal capacity case above where transactions are not triggered by client orders <u>Client side</u> : This field would not be applicable for the client side transaction report.	
• Matching a buying client with a selling client	This field would not be applicable	

68. The choice of the person to be identified in the Trader ID field depends on the investment firm’s organization. The trader designation must be unique, consistent and persistent. Its designation shall rely on the same process as described in the sub-section on “Assigning client designations” for natural persons above.
69. For committee decisions, ESMA proposes that investment firms should assign a separate trader ID designation for each committee, which starts with the prefix ‘COM’, for example ‘COM1234’. This will enable NCAs to distinguish between investment decisions made by a particular committee and decisions made by an individual trader. In addition, investment firms should not use a generic committee designation to identify all committee decisions. This means that individual committees should be separately identified (e.g. ‘COM1234’ and ‘COM5678’) and should not be simply classified broadly as being a committee decision under a general code (e.g. ‘COMMITTEE’).

¹⁹² The order management system is essentially a smart order routing system that decides to which broker the order for execution should be sent (to satisfy best execution requirements).

- 70. A change in the composition of the committee (e.g. individual committee members joining or leaving) should not cause a change in the committee’s trader ID designation.
- 71. Investment firms will have responsibility for assigning the committee code and will be required to comply with the same key principles in line with assigning individual trader IDs and algorithm identifiers, meaning that the designations for each committee must be unique, consistent and persistent. While investment firms will have flexibility in how they assign the committee trader ID designations, they must keep adequate records about changes to the composition of the committee.
- 72. ESMA intends to give further consideration to how the trader ID field should be populated in instances of Direct Market Access and Sponsored Access.

Q552: What are your views on the general approach to determining the relevant trader to be identified?

Q553: In particular, do you agree with ESMA’s proposed approach to assigning a trader ID designation for committee decisions? If not, what do you think is the best way for NCAs to obtain accurate information about committee decisions?

Q554: Do you have any views on how to identify the relevant trader in the cases of Direct Market Access and Sponsored Access?

The “Algo ID”

- 73. The identification of the computer algorithms responsible for the decision making and trade execution enhances the role of transaction reports as a market monitoring tool. NCAs will have immediate visibility of the algorithm(s) involved in the transaction without having to gather this type of information from the investment firms on an ad-hoc basis.
- 74. Moreover, capturing the above information in transaction reports enables NCAs to more efficiently detect instances where certain algorithms are used in potential market abuse or disorderly trading activities¹⁹³.
- 75. Since the computer algorithms responsible for the investment decision might not necessarily be those executing the transaction, these two sets of information will have to be displayed separately and therefore two fields would have to be created in transaction reports. Also, the requirement applies to algorithms within the investment firm reporting the transaction and as such where the investment decision is made by the client (who then instructs the broker firm), the field for the algorithm responsible for the investment decision should be populated so as to indicate that it is not applicable.

Below is a table that summarises two general scenarios.

Scenario	Algorithm responsible for the investment decision	Algorithm responsible for the execution

¹⁹³ Under the current transaction reporting requirements, any suspicious trading activity is attributed to the firm as a whole since there is insufficient granular information to identify any specific algorithms used in the transactions.

<p>An order worked manually <i>i.e. where a trader receives an order and employs an algorithm to execute the order</i></p>	<p>This field would not be applicable</p>	<p>Identity of the algorithm</p>
<p>‘Automatic’ trade <i>E.g. The algorithm is used to search and take advantage of market inefficiencies but is not acting in response to a particular order</i></p>	<p>Identity of the algorithm</p>	<p>Identity of the algorithm</p>

76. Some other issues may need further consideration such as where there might be inter-relationships between algorithms. For example, there may be chains of algorithms involved where one algorithm feeds into another algorithm. In other situations, several algorithms may be running simultaneously on the same order. In these situations, ESMA considers that the investment firm should be permitted to decide how to identify the relevant algorithm or chain of algorithms.

Identifier for the algorithm

77. In general, the industry already seems to use some form of identification for its algorithms which ESMA believes could also be used to identify their algorithms for the purposes of transaction reporting.
78. An important characteristic of algorithms is that they may change very frequently. This may mean that there may be uncertainty about whether a variation to the characteristics of an existing algorithm is considered to be a new algorithm or whether it is simply a new version of an existing algorithm. There is also a related issue of how firms should identify updates to an algorithm.
79. As a result, a pragmatic solution should be adopted for identification of algorithms. The investment firm will have responsibility and discretion over how it identifies its algorithms throughout the lifecycle of the algorithm, provided that the identifier meets criteria defined below.
80. In addition, investment firms will have to retain adequate records under Article 17 of MiFID about the algorithms which it uses, including a description of the nature of its algorithm and the trading strategy or strategies that it has been deployed to undertake. Under Article 25(1) of MiFIR, investment firms must keep adequate records in relation to orders and transactions. These records must be adequate to enable the investment firm to answer requests for information from NCAs in relation to matters such as which algorithm(s) was responsible for a particular transaction, the particular characteristics of the relevant algorithm(s) at the time of the transaction and what role the algorithm(s) played in the execution or investment decision for that transaction.
81. ESMA believes this approach will provide firms with flexibility when managing variations to the algorithm and assigning identifiers for each of its algorithms while still allowing NCAs to receive meaningful information to assist in detecting and investigating market abuse and disorderly trading.

82. While determining identifiers for its algorithms an investment firm shall ensure that these identifiers are unique, consistent and persistent. This means:
- i. an exclusive designation must be given to each unique set of code that constitutes an algorithm. A firm must not use a general algorithm designation to identify all its algorithms;
 - ii. once an identifier has been assigned to an algorithm, the same designation should always be used when referring to the algorithm or version of the algorithm;
 - iii. the same algorithm identifier should apply for a specific algorithm code regardless of the products or markets that the algorithm applies to. Where a firm has assigned an algorithm identifier for other purposes, then for consistency, it should also use the same identifier to identify that algorithm in transaction reports. For example, if a firm identifies an algorithm as ‘Algo 1’ when marking an order on a trading venue, then the same algorithm should also be identified as ‘Algo 1’ in transaction reports. This will enable NCAs to compare data more easily and provide them with a fuller understanding of how the algorithm operates; and
 - iv. an algorithm’s designation must be unique over time. This means that where an algorithm is retired, the firm must not assign that algorithm’s designation to any other algorithms in the future. This will assist NCAs in detecting and analysing a particular algorithm’s behaviour pattern over a period of time.

Q555: Do you believe that the approach outlined above is appropriate for identifying the ‘computer algorithm within the investment firm responsible for the investment decision and the execution of the transaction’? If not, what difficulties do you see with the approach and what do you believe should be an alternative approach?

A designation to identify the applicable waiver

Legal requirement/description of the field

83. For clarification, the ‘waivers under which the trade has taken place’ refer only to waivers in relation to pre-trade transparency requirements and not to deferred publication of trade reports (post trade transparency).
84. In particular:
- i. Article 4(1) of MiFIR - Granting of waivers related to pre-trade transparency requirements for trading venues in respect of shares, depositary receipts, ETFs, certificates and other similar financial instruments states that “NCAs shall be able to waive the obligation for market operators and investment firms operating a trading venue to make public the information referred to in Article 3(1)¹⁹⁴ for: ...”;

¹⁹⁴ According to Article 3(1) MiFIR “Market operators and investment firms operating a trading venue shall make public current bid and offer prices and the depth of trading interests at those prices which are advertised through their systems for shares, depositary receipts, ETFs, certificates and other similar financial instruments traded on a trading venue. This requirement shall also apply to actionable indication of interests.

- ii. Article 9(1) of MiFIR - Granting of waivers related to pre transparency requirements for trading venues in respect of bonds, structured finance products, emission allowances and derivatives states that “NCAs shall be able to waive the obligation for market operators and investment firms operating a trading venue to make public the information referred to in Article 8(1)¹⁹⁵ for: ...”

85. In addition, in order to ensure that the use of the waivers provided for in Article 9(1) of MiFIR does not unduly harm price formation, Article 4(a) of MiFIR prescribes that trading under these waivers is restricted accordingly to a volume cap mechanism¹⁹⁶.

Supervisory purpose of the field

86. Transaction reporting is not only meant for market abuse purposes but also for achieving market integrity. The inclusion of a designation to identify the applicable waiver under which the trade has taken place follows this latter goal and allows a broader oversight of the markets.

87. Therefore, Article 26 of MiFIR on transaction reporting has included this provision in order to provide CAs with sufficient information to carry out the tasks mentioned above.

88. The mandate states: “...a designation to identify the applicable waiver under which the trade has taken place...” As Articles 4 and 8 of MiFIR describe several situations under which pre transparency obligations may be waived, each waiver should be identified with a relevant flag. MiFIR considers pre-trade transparency waivers for the following cases:

- i. Equity:

Article (4) (1) (a) reference price waiver: transactions executed under the reference price waiver and which are subject to the volume cap mechanism. (R);

Article (4) (1) (b) negotiated transactions:

- volume weighted spread or market makers quotes (NTV),
- illiquid equity (NTI),
- conditioned (NTC);

Article 4(1)(c) large in scale (L)

- ii. Non-equity:

Market operators and investment firms operating a trading venue shall make this information available to the public on a continuous basis during normal trading hours.”

¹⁹⁵ According to Article 7(1) MiFIR “Market operators and investment firms operating a trading venue shall make public current bid and offer prices and the depth of trading interests at those prices which are advertised through their systems for bonds, structured finance products, emission allowances and derivatives traded on a trading venue. This requirement shall also apply to actionable indication of interests. Market operators and investment firms operating a trading venue shall make this information available to the public on a continuous basis during normal trading hours.”

¹⁹⁶ In particular, according to Article 4a(1) MiFIR, “...trading under these waivers is restricted as follows:

- i) the percentage of trading in a financial instrument carried out on a trading venue under these waivers shall be limited to 4% of the total volume of trading in that financial instrument on all trading venues across the Union over the previous 12-month period;
- ii) overall EU trading in a financial instrument carried out under these waivers shall be limited to 8% of the total volume of trading in that financial instrument on all trading venues across the Union over the previous 12-month period.

This volume cap mechanism shall not apply to negotiated transactions which are in an illiquid share, depositary receipt, ETF, certificate or other similar financial instrument and are dealt within a percentage of a suitable reference price as referred to in Art 4(1)(b)(i*), or to negotiated transactions that are subject to conditions other than the current market price of that financial instrument as referred to in Art 4(1)(b)(ii).”

Article 9(1) (a) large in scale (L);

Article 9(1) (b) indications of interest in request-for-quote and voice trading systems above a size (S);

Article 9(1) (d) Transactions executed under the waiver for instruments for which there is not a liquid market (I)

Q556: Do you foresee any problem with identifying the specific waiver(s) under which the trade took place in a transaction report? If so, please provide details.

The designation to identify short sales of shares and sovereign debt

89. According to Article 26(3) of MiFIR, transaction reports must include a designation to identify a short sale (as defined in the Short Selling Regulation (EU) 236/2012 ‘SSR’) in relation to shares or sovereign debt. Flagging of short sales under MiFIR differs from the disclosure obligations under the SSR as the SSR relates to disclosure of net short positions to the market or NCAs (depending on whether the net short position exceeds a certain threshold). According to Recital 34, it is envisaged that collecting short sale information will supplement the information gained under the short position reporting regime and enable NCAs to monitor levels of short selling in their markets.
90. The precise requirements of Article 26(3) call for the transaction report to include a designation to identify a short sale as defined in Article 2(1) (b) of SSR in respect of any shares and sovereign debt within the scope of Article 12, 13 and 17 of that Regulation.
91. Therefore, ESMA considers that a designation to identify a short sale as defined in Article 2(1)(b) of the SSR in respect of any shares or sovereign debt within the scope of Articles 12 and 13 of the SSR should mean the following:
- i. where an investment firm itself has entered into a covered short sale either by pre-borrowing the financial instruments to be sold or by entering into an agreement/making an arrangement that cover the short sale, the investment firm should, after the execution of the short sale transaction and within the prescribed deadline (in addition to the other information to be reported under Article 26(3) of MiFIR), specify in the report that it has executed a short sale as defined in Article 2 (1) (b) of the SSR of shares or debt instruments, as the case may be; or
 - ii. where the investment firm is acting as a financial services provider and is executing a transaction on behalf of its client who has ordered the execution of a short sale transaction, the investment firm should, after the execution of the short sale transaction and within the prescribed deadline; report the information mentioned in point (i). above.
92. Further, ESMA considers that a designation to identify a short sale as defined in Article 2(1)(b) of the SSR in respect of any shares or sovereign debt within the scope of Article 17 (Exemption for market making activities and primary market operations) of the SSR should mean the following:

Where an investment firm is subject to transaction reports pursuant to Article 26(3) of MiFIR and where no restriction on uncovered short sales in shares or in sovereign debt (i.e. Articles 12 and 13 of the SSR) are applicable to it, the investment firm should include in the report that it has executed a short sale as defined in Article 2(1)(b) of the SSR of shares or debt instruments while performing an activity which is exempted from the relevant provisions of the SSR under Article 17 of that Regulation.

93. ESMA proposes that this information could be represented in a transaction report using two fields: a short selling flag to indicate whether a short sale took place within the meaning of Article 2(1) (b) of the SSR and a separate flag to indicate whether the short sale was undertaken under an exemption covered by Article 17 of the SSR.

Designation to identify a short sale

94. ESMA proposes that a simple flagging regime should be adopted for identifying short sales in transaction reports. Under ESMA’s proposed approach, every reportable transaction in shares or sovereign debt would be marked with one of two possible identifiers to indicate whether it was a short sale or not a short sale.
95. There would be no differentiation between partial short sales (e.g. where the seller held 50 shares and sold 100 shares) and full short sales (e.g. where a seller held 0 shares and sold 100 shares). This would be the simplest solution and would not require the investment firm to determine what portion of the sale was short. However, ESMA acknowledges that this would not result in granular information about the quantity being short sold in any given transaction. As an alternative, more detailed data could be reported under a “partial” flag indicating through a percentage the proportion of the instruments sold which are short.

Q557: Do you agree with ESMA’s proposed approach to adopt a simple short sale flagging approach for transaction reports? If not, what other approaches do you believe ESMA should consider and why?

Market making activities and primary market operations

96. As mentioned in paragraph 92, transaction reports will be required to identify whether a short sale that is being reported is within the scope of Article 17 of the SSR. This would be achieved by introducing a flag to indicate whether the short sale took place under a market making activity or primary market operations exemption. An example of how this field may be populated is outlined below:

	Action	Proposal	
Flag field		Short selling flag under Article 26 of MiFIR	Market making activity and Primary Market Operations under SSR
Market making activity or activity falling under ‘primary market operations’ ¹⁹⁷	Buy	No	Not applicable ¹⁹⁸
	Sell	No	Not applicable
	Short sale	Yes	Yes
Investment firm other activity	Buy	No	Not applicable
	Sell	No	Not applicable
	Short sale	Yes	Not applicable

¹⁹⁷ For further information, please see Article 17 of the Short Selling Regulation (Regulation (EU) 236/2012).

¹⁹⁸ ESMA will give further consideration to the precise way these fields should be populated at a later stage.

97. Further, ESMA acknowledges that flagging short sales in transaction reports is a potentially complex issue and therefore would like to seek feedback on a number of key issues:

Client's relationship with the investment firm

98. Other short selling regimes around the world impose an obligation for clients to disclose to their broker whether their sale is a short sale, which then enables the investment firm to accurately disclose this information to the relevant authority on the client's behalf. This approach will have the greatest impact in situations where a client may have accounts with several investment firms or where the investment firm is not a custodian since, in those cases; the investment firm will not have visibility of their client's entire position and therefore will not know whether the client is short.
99. There appears to be two possible options to address the flagging of short sales. The first option could be to require the investment firm to determine whether the client is making a short sale on a best efforts basis. This would involve the investment firm asking the client whether the sale is a short sale and the client voluntarily disclosing the information. A second option could be to require the investment firm to flag short sales solely based on the information that the investment firm possesses about the client's holding in their own systems.
100. The first option involving the client voluntarily disclosing information may potentially result in a complete and accurate indication of whether the sale is a short sale from the client's perspective as it will take into account the client's other holdings. On the other hand, it may result in unreliable and inconsistent information since it depends on whether and what the client chooses to disclose. Clients may not always wish to voluntarily disclose confidential information about their holdings at other investment firms because they could potentially disadvantage themselves by giving an indication of their overall position.
101. The second option is based on information which the investment firm is able to calculate from their own systems. Although this may potentially lead to reliable and consistent information, a significant drawback to this approach is that investment firms are not necessarily custodians. As a result, investment firms will not necessarily have visibility of their clients' holdings even within their own systems. In those cases, investment firms would be unable to populate the short sale flag field and therefore NCAs would not receive any short sale information from the investment firm. Another disadvantage to this approach is that it does not take into the account the fact that the client may hold other positions in those shares or sovereign debt at another investment firm.
102. NCAs will still be able to maintain general oversight of a client's overall trading under both options because they will be able to view transaction report information received from multiple investment firms in relation to the same client.

Q558: Which option do you believe is most appropriate for flagging short sales? Alternatively, what other approaches do you think ESMA should consider and why?

Investment firm acting in a principal capacity

103. There may also be difficulties with flagging short sales where the investment firm is acting in a principal capacity. Where the investment firm is dealing as principal and selling short to the client or market, the investment firm would always be required to flag the short sale in their transaction report because the investment firm is actually short. However, where the investment firm is **buying** from the

client as principal and the client is short, there is a question of whether an investment firm should flag that a short sale has taken place.

104. Option 1: One possible approach may be to require investment firms acting in a principal capacity to only mark their transaction reports with a short sale flag where the investment firm has short sold the shares or sovereign debt. This would mean that in the case where the investment firm has bought from the client (who is short selling) on a principal basis, this short sale would not be flagged in the investment firm's transaction report. This is because the investment firm is not actually short selling.
105. This approach would be consistent with the general principle that investment firms acting on a principal capacity report details of the transaction from their own perspective. This approach would also prevent duplicate short sale flagging where the client is also an investment firm and would therefore also be submitting its own transaction report with a short sale flag.
106. Option 2: The alternative approach would be to require the investment firm to use the short sale flag whenever the investment firm or the client has short sold in that transaction. The disadvantage of this approach is that it is counterintuitive to have a 'principal buy' transaction marked with a short sale flag. This approach may also be more complicated for investment firms and could potentially result in duplicate transaction reports where the client is also an investment firm that has transaction reporting obligations.

Q559: What are your views regarding the two options above?

Aggregated transactions

107. An investment firm may aggregate several orders on behalf of different clients while acting in an agency capacity and execute them in a single transaction. For example, an investment firm may have orders to sell 10,000 shares on behalf of Client A, 30,000 shares on behalf of Client B and 60,000 shares on behalf of Client C. In this situation, some or all of the clients may be short. The investment firm may then aggregate these orders into a single order for 100,000 shares which it then executes on the market.
108. In this situation, ESMA proposes the following solution where the investment firm aggregates orders while acting in an agency capacity:
 - i. for the market side leg: the investment firm should not use the short sale flag for the aggregated transaction;
 - ii. for the individual client legs: the investment firm should use the short sale flag depending on whether the individual client is short.
109. This approach avoids any duplication of the short sale flag in the individual client legs and the market side leg.

Q560: Do you agree with ESMA's proposed approach in relation to reporting aggregated transactions? If not, what other alternative approaches do you think ESMA should consider and why?

Q561: Are there any other particular issues or trading scenarios that ESMA should consider in light of the short selling flag?

The relevant financial instruments to be reported

Background

110. According to Article 26(9)(e) of MiFIR, ESMA shall develop technical standards to specify 'the relevant categories of financial instrument to be reported in accordance with [Article 26] paragraph 2'.
111. This provision therefore gives ESMA the power to specify the three categories of reportable financial instruments for transaction reporting purposes as opposed to having to develop an exhaustive list of reportable financial instruments.
112. While investment firms have previously expressed a desire for NCAs or ESMA to publish a single 'golden source' of reportable financial instruments which they could rely on, producing an exhaustive list of reportable financial instruments would be challenging and impractical, due to the difficulty in capturing information about all OTC derivatives and overseas traded derivatives. This in turn could lead to potential gaps in reporting.

Proposed approach

113. ESMA elaborates the following approach to further specify which categories of financial instruments should be subject to transaction reporting:
114. The first category of financial instruments shall include all financial instruments which are admitted to trading or traded on a trading venue or for which a request for admission to trading has been made. This applies regardless of whether the instrument is contained in the list of instruments published by ESMA for the purposes of Article 4 of MAR and Article 27 of MiFIR ('ESMA MIFIR database').
115. This is because instruments which can be traded on a trading venue or for which a request for admission to trading has been made fall within the scope as set out in Article 26(2)(a) of transaction reporting. By requiring firms to report all financial instruments that are traded on a trading venue independently of the ESMA MiFIR database, will reduce the risk of firms not reporting transactions where the financial instrument has been inadvertently omitted from the ESMA MiFIR database.
116. The second category of ESMA's specified financial instruments is intended to capture financial instruments (namely derivatives) which are not admitted to trading or traded on a trading venue and, as a consequence, not published on ESMA's MiFIR database but which fall within the transaction reporting scope as set out in Article 26(2)(b) of MiFIR. Such instruments would, for example, include overseas (i.e. outside the EEA) traded derivatives (where the underlying is traded on a trading venue).
117. The third category specified by ESMA shall include financial instruments where the underlying is an index or a basket composed of financial instruments traded on a trading venue. In particular, ESMA

sets out below a number of considered options as to which underlying baskets and indices should fall within the scope of transaction reporting obligations.

118. Summarising the above, the following categories of financial instruments would be reportable:

- i. financial instruments which are;
 - a. admitted to trading on a trading venue;
 - b. traded on a trading venue; or
 - c. subject to a request for admission to trading on a trading venue. Further specifications may be envisaged in order to precisely determine whether a financial instrument is included in this category.
- ii. financial instruments where the underlying is a financial instrument covered by Article 26(2)(a) which corresponds to a financial instrument mentioned in points (i)(a) and (i)(b) above;
- iii. financial instruments where the underlying is an index or a basket (please see the following section for further details) composed of financial instruments traded on a trading venue.

119. In addition, it has to be pointed out that article 26(2) of MiFiR requires that the obligation to report transactions shall apply to transactions in financial instruments referred to in points (a) to (c) irrespective of whether or not such transactions are carried out on the trading venue.

Indices and baskets

120. Article 26(2)(c) of MiFiR states that investment firms must submit transaction reports where the firm executes a transaction in a financial instrument where the underlying is an index or a basket composed of financial instruments traded on a trading venue.¹⁹⁹ Firms will also need to identify the underlying financial instruments in their transaction reports.

121. By their nature, indices and baskets contain multiple financial instruments, some or all of which may be traded on a trading venue.

122. In the case of financial instruments over indices or baskets where those financial instruments are admitted to trading or traded on a trading venue or for which a request for admission has been made, these financial instruments will always be considered reportable financial instruments. This applies regardless of the composition of the index or basket. This is because those types of financial instruments explicitly fall within Article 26(2)(a) of MiFiR. The proposals outlined below therefore apply to OTC derivatives over indices and baskets as well as indices and baskets based overseas as exchange traded derivatives.

¹⁹⁹ In relation to indices, Article 26(2)(c) of MiFiR could be read as 'financial instruments where the underlying is an index' (without further qualification) or 'financial instruments where the underlying is an index composed of financial instruments traded on a trading venue'. See paragraph 124 where Option (i) and (ii) are based on the latter interpretation while Option c) is based on the former.

123. For baskets, ESMA proposes that investment firms shall be required to report the transaction where at least one of the financial instruments in the basket is traded on a trading venue. This is because the number of components in a basket is expected to be less than in an index.
124. For indices, ESMA considers that there are three possible approaches. Investment firms would either have to report the transaction:
- i. where all components of the index are traded on a trading venue;
 - ii. based on a threshold (for example, where at least 50% of the index, based on weighting, is traded on a trading venue); or
 - iii. where the index is used as the underlying for a financial instrument captured by Article 26(2)(a) of MiFIR.
125. Requiring firms to report where all the components of the index are traded on a trading venue is the simplest approach but may be potentially onerous for investment firms as it would require them to populate the transaction report with all the components of the index. However, this approach would potentially reduce the number of instances where firms would have to transaction report since it would only apply to indices fully composed of financial instruments traded on a trading venue.
126. The second approach (threshold approach) focuses on indices where a certain weighting of the index consists of financial instruments traded on a trading venue. This would focus on indices which are of greater interest to NCAs; however ESMA wishes to consult with investment firms about the practical difficulties with adopting this approach. In particular, whether there would be any difficulties in accessing this type of information and secondly, in calculating the weightings.
127. The third approach would capture OTC derivatives where the ultimate underlying is an index used as the underlying for a derivative traded on a trading venue. This would create a mirror reporting obligation for OTC derivatives over indices, similar to what exists for exchange-traded derivatives over indices. This would be on the basis that at least in theory, there should not be a distinction between the scope for capturing OTC derivatives and derivatives over indices traded on trading venues. Conversely, this approach may lead to an undesirable result as it could potentially capture OTC derivatives over indices where none of the components of the index are traded on a trading venue and where the financial instrument itself (i.e. the derivative) is also not traded on a trading venue. Such financial instruments may be of limited interest to NCAs from a market surveillance perspective. ESMA would also be interested in obtaining the industry's views about whether it would have any difficulty in assessing whether an index is an underlying in another financial instrument.

Q562: Do you agree with ESMA's proposed approach for reporting financial instruments over baskets? If not, what other approaches do you believe ESMA should consider and why?

Q563: Which option is preferable for reporting financial instruments over indices? Would you have any difficulty in applying any of the three approaches, such as determining the weighting of the index or determining whether the index is the underlying in another financial instrument? Alternatively, are there any other approaches which you believe ESMA should consider?

The application of transaction reporting obligations to branches of investment firms

128. Current provisions of MiFID determine branches' reporting obligations based on whether or not the relevant service was provided by the branch within the territory of the Member State in which it is located. In practice this means that branches report some transactions to the host NCA and some transactions to the home NCA. There are no harmonised rules defining the criteria under which the branches have to report to the host or to the home NCA. This has resulted in the same transaction reports being submitted to both the home and the host NCAs and in some cases, transactions not being reported at all.
129. Article 26(9)(8) of MiFIR provides for ESMA to determine the application of the transaction reporting obligations to branches of investment firms.
130. According to Article 41(2) of MiFID II, the host NCA is responsible for ensuring the services provided by the branch within its territory comply with Article 26 of MiFIR (transaction reporting). Therefore, the branch transaction reporting requirements have to be set out in a way that ensures the host NCA has access to the relevant information to supervise the branch. The requirements need to ensure the information included in the transaction report is sufficient to be forwarded to each and every NCA of all the branches involved in the transaction. Moreover, the requirements should be as simple as possible as otherwise the risk is high that investment firms will face difficulties in applying the rules and thus might send incorrect, insufficient or duplicate information.
131. Following the above, ESMA proposes that the head office of the branch reports the transaction to the home NCA. Under this model no transaction report is submitted by the branch to the host NCA.
132. In order for other NCAs to receive the relevant information submitted by the head office to the home NCA, additional criteria need to be developed in relation to the routing of transaction reports between authorities. ESMA suggests that transaction reports shall be sent by the home authority of the investment firm to other national authorities according to the following criteria:
- i. most liquid market of the **instrument**;
 - ii. host Member State of the branch that holds/maintains the **client relationship**;
 - iii. host Member State of the branch of the **executing trader**;
 - iv. host Member State of the branch that holds the **membership of the trading venue**, where the transaction was conducted.
133. Where a transaction takes place involving different branches as per the criteria set out above, each of the criteria shall be correctly flagged in the transaction report by populating the ISO 3166 country code of the Member State in which the involved branch is located. This more granular information enables the home NCA to then forward the information to other relevant NCAs. Where the same branch is involved in a transaction for multiple reasons, each of those reasons shall be identified. This will help to avoid duplicate reports being received by NCAs.
134. ESMA's proposal aims to simplify the reporting requirements for investment firms that establish different branches in other Member States by requiring a single connection point between the head office and the home NCA. It is essential that the head office submits sufficient detail of its branches'

involvement in the transactions so that the home competent authority can forward the information to NCAs with responsibility for those branches.

Q564: Do you think the current MiFID approach to branch reporting should be maintained?

Q565: Do you anticipate any difficulties in implementing the branch reporting requirement proposed above?

Q566: Is the proposed list of criteria sufficient, or should ESMA consider other/extra criteria?

Data standards and formats for the information to be reported

135. Pursuant to Article 26(9)(a) of MiFIR, ESMA is asked to develop draft RTS to determine data standards and formats for the information to be reported in accordance with paragraphs 1 and 3, including the methods and arrangements for reporting financial transactions and the form and content of such reports.
136. Except where otherwise stated, this section applies to investment firms and trading venues that submit transaction reports to NCAs.
137. The obligations on ARMs in relation to methods and arrangements for reporting financial transactions are based on Article 26 of MiFIR according to the provisions laid down in Article 66 of MiFID.
138. ESMA is committed to align to the extent possible, the MiFIR reporting with the standards for reporting to trade repositories under EMIR.
139. To date, NCAs require investment firms to submit transaction reports to them in a different format for each EU country. The current formats in use are:
 - i. XML (often very similar to that used for the exchange of transaction reports amongst NCAs as per Article 25 of MiFID);
 - ii. fixed length;
 - iii. CSV;
 - iv. Excel.
140. The structure and the syntax of the various formats accepted by NCAs also widely differ.
141. Due to the ever-growing internationalisation of financial markets, there is a strong case and demand for more harmonisation in this field. Pursuant to Article 26(9)(a) ESMA is asked to develop draft RTS to determine data standards and formats for the information to be reported in accordance with paragraphs 1 and 3, including the methods and arrangements for reporting financial transactions and the form and content of such reports.

142. The reports of transactions in financial instruments shall be made in an electronic and machine readable form.
143. The format shall be based on generally accepted standards and have a common structure and syntax across Europe.
144. It shall be suitable for NCAs receiving high volumes of data.
145. NCAs shall be free to implement national arrangements for the sake of those firms whose trading volumes do not justify the costs for implementing an automated transaction reporting system. However, those submissions shall still be made in electronic and machine readable form.

Q567: Which format, not limited to the ones above, do you think is most suitable for the purposes of transaction reporting under Article 26 of MiFIR? Please provide a detailed explanation including cost-benefit considerations.

146. The methods and arrangements by which those reports are made shall satisfy the following conditions:
 - i. ensure the security and confidentiality of the data reported as set out in Article 26(7) of MiFIR for trading venues, and Article 16 of MiFID for investment firms;
 - ii. incorporate mechanisms for authenticating the source of the transaction report;
 - iii. include appropriate precautionary measures to enable the timely resumption of reporting in the case of system failure;
 - iv. incorporate mechanisms for identifying and correcting errors in a transaction report. These errors will include under-reporting of reportable transactions in reportable instruments and inaccuracies in transaction reports. Such inaccuracies will include the submission of duplicate reports for reportable transactions and the reporting of the non-reportable transactions set out in the section on 'Actions which are not reportable under Article 26 of MiFIR'. Where such errors are identified, the NCA will require errors in historical reports to be corrected for a period going back to a maximum period of 5 years.

Investment firms

147. Investment firms shall have adequate arrangements in place to ensure they detect and correct errors in their transaction reports and that their transaction reporting is complete and accurate. These arrangements shall include comprehensive testing of their full reporting process and regularly performing end-to-end reconciliations. This can include for instance the reconciliation of the firm's trading activity against data samples of its transaction reports provided by the NCA at the request of the firm. The end-to-end reconciliations should include checking the accuracy and completeness of the individual data fields and their compliance with the RTS.
148. Where an investment firm has outsourced submission of its transaction reports to a third party (other firms, ARMs or trading venues), the investment firm is still responsible for the timeliness, completeness and accuracy of its transaction reports and needs to ensure that it has the arrangements set out above to ensure that its reporting is accurate and complete. In addition the checks will also include

checking the information sent by the investment firm to the third party where applicable and also checking that the information has been sent accurately by the third party to the NCA.

149. Where the ARM cancels or corrects a transaction report pursuant to an agreement with the investment firm, the investment firm shall ensure that it receives details of the corrections and cancellations and retains these records in order to be able to track the cancellations or corrections.

Trading venues

150. Trading venues shall have systems in place to enable them to detect errors in the transaction reports that the trading venue submits to the NCA where the error or omission is caused by the trading venue itself. The trading venue shall also have systems in place to enable it to correct those errors or omissions and submit corrected transaction reports to the NCA.

Annex 8.1.1. Table of fields

	FIELD	DETAILS TO BE REPORTED
<p>NOTE: ESMA is currently considering whether fields which are not applicable should be left blank or populated with a code such as ‘N/A’</p>		
1	Reporting firm identification code	LEI (or BIC or national code) of the firm which executed ²⁰⁰ the transaction.
2	Submitting entity identification code	<p>LEI (or BIC or national code) of the entity that submitted the transaction report. This may be the reporting firm itself, an ARM acting on its behalf or the trading venue through whose system the transaction was completed.</p> <p>Where the submitting entity is the reporting firm, the information provided in this field shall be the same as the reporting firm identification in Field 1.</p>
3	Branch of the reporting firm which received the order from the client(*)	The ISO 3166 two character country code shall be used to identify the country where the branch is located.
4	Branch of the reporting firm whose trader executed the transaction (*)	The ISO 3166 two character country code shall be used to identify the country where the branch is located.
5	Branch of the reporting firm whose market membership was used for executing the transaction(*)	The ISO 3166 two character country codes shall be used to identify the country where the branch is located.
6	Trading day	The trading day on which the transaction was executed. ISO 8601 date format. UTC time shall be used.
7	Trading time	The trading time on which the transaction was executed. ISO 8601 time format. UTC time shall be used.
8	Buy/Sell indicator	<p>This field indicates whether the transaction was a buy or a sell.</p> <p>If the reporting firm was acting in a principal capacity: this field shall be populated from the reporting firm’s perspective.</p> <p>If the reporting firm was acting in an agency capacity: this field shall be populated from the client’s perspective.</p>

(*) Subject to the outcome of the Discussion Paper – for further information, please see the relevant section of the Discussion Paper entitled ‘The application of transaction reporting obligations to branches of investment firms’

²⁰⁰ For the purposes of Article 26 of MiFIR, ESMA regards an investment firm as a reporting firm where the investment firm undertakes any of the actions set out in Section “What constitutes a transaction and execution of a transaction”

		B = Buy S = Sell
9	Trading capacity	This field indicates whether the reporting firm has executed the transaction: <ul style="list-style-type: none"> - as principal on own account (either on its own behalf or on behalf of a client); or - as agent for the account of, and on behalf of a client P = Principal A = Agent
10	Quantity (**)	Number of units of the financial instrument, nominal value of bonds or number of lots on derivative contracts in the transaction. Where the financial instrument is a spread bet, this field shall contain the monetary value wagered.
11	Quantity Notation (**)	Indication as to whether the quantity is expressed in number of units or in nominal value.
12	Price (**)	Traded price of the transaction, excluding commission and (where relevant) accrued interest. Where price is expressed in monetary value, the price shall be reported in the major unit.
13	Price notation (**)	Indication as to whether the price is expressed in monetary value, in percentage or in yield.
14	Currency 1 (**)	Currency in which the price is expressed (where the price notation field is populated with the notation for monetary value). This field shall be populated with the ISO 4217 Currency Code.
15	Currency 2 (**)	Currency in which the reference price of the ultimate underlying instrument is expressed where applicable.
16	Price multiplier (**)	Number of units of underlying instruments represented by a single derivative contract.

(**) The information reported in the price, price notation, currency 1, currency 2, quantity, quantity notation, price multiplier and consideration fields shall be consistent. As an example, for equity derivatives, the monetary value determined by multiplying the price, quantity and price multiplier fields must accurately reflect the consideration of the transaction in major currency.

17	Consideration	Monetary value of the transaction based on settlement values ²⁰¹ - excluding commission and accrued interest.
18	Venue of execution	<p>Identification of the venue by a unique code.</p> <p>Where the transaction is executed on a market (MiFID trading venue or any non-EEA valid trading market), the four-character ISO 10383 Market Identifier Code (MIC) shall be used.</p> <p>If the financial instrument is admitted to trading or traded on a trading venue and the transaction is OTC, the venue identification shall contain the code “XOFF”.</p> <p>If the financial instrument is admitted to trading or traded on a trading venue and the transaction is on a Systematic Internaliser (SI), the venue identification shall contain the SI’s LEI code or SI’s MIC [subject to consultation]²⁰²</p> <p>If a firm does not know that they are dealing with an SI they may report the venue as “XOFF”.</p> <p>If the transaction is in a derivative contract where the underlying is a financial instrument admitted to trading or traded on a trading venue and the derivative contract is traded OTC, the venue identification shall contain the code “XXXX”.</p>
19	Counterparty identification code type	<p>Code type used to identify the counterparty of the transaction.</p> <p>If the counterparty is a legal entity: populate this field with the word “LEI” (or word indicating the code type for BIC or national code)²⁰³.</p> <p>If the reporting firm is acting in a principal capacity with their client as their counterparty: This field shall indicate what type of identifier was used to identify the counterparty (eg ‘national identifier’).</p>

²⁰¹ For example, NCAs are interested in not only seeing the margin paid/received for CFDs, but the total value of the transaction.

²⁰² ESMA is currently considering whether the SI should be identified using its LEI or MIC.

²⁰³ See sub-section “Assigning client designations” on legal persons

20	Counterparty identification code	<p>Code to identify the reporting firm’s counterparty to the transaction.</p> <p>Legal entity: If the counterparty is a legal entity, populate this field with the LEI code (or BIC or national code)²⁰⁴ of the counterparty.</p> <p>Where the transaction is executed on an anonymous order book, the firm shall populate this field with the LEI of the CCP or the MIC of the market. ESMA is considering which of the two options (i.e. LEI of the CCP or MIC of the market) should be adopted and would welcome feedback on the issue.</p> <p>Natural person: If the counterparty is a client of the reporting firm and a natural person, this field shall be populated with either a unique national number, passport number or a unique client identifier assigned by the investment firm²⁰⁵.</p>
Fields 21 to 27 are only applicable where the client is the reporting firm’s counterparty and is a natural person. ESMA is currently considering the most effective way of populating the client and decision maker information in transaction reports:		
21	Counterparty - first name	Text field.
22	Counterparty - surname 1	Text field.
23	Counterparty – surname 2	Text field. This will contain the second surname of the counterparty (if applicable)
24	Counterparty - date of birth	ISO 8601 date format.
25	Counterparty - country of residence	ISO 3166 two character country code.
26	Counterparty -post code or ZIP code	Post code or ZIP code in a standardised format.
27	Counterparty - detailed address	Text field.
Fields 28 to 36 are only applicable where the client is the reporting firm’s counterparty. ESMA is currently considering the most effective way of populating the client and decision maker information in transaction reports:		
28	Decision maker for the counterparty (where	Code type used to identify the decision maker where the investment decision is not made by the counterparty and the

²⁰⁴ See sub-section “Assigning client designations” on legal persons

²⁰⁵ To determine which identifier must be used, please see the relevant section of the Discussion Paper entitled ‘assigning client designation’, subsection on ‘natural persons’ (paragraphs 37-48) and the diagram on client ID (Annex 8.1.2).

	different from counterparty) - identification code type	<p>counterparty is the reporting firm's client.</p> <p>Legal entity: If the decision maker is a legal entity, populate this field with the word "LEI" (or word indicating the code type for BIC or national code)²⁰⁶; or</p> <p>Natural person: If the decision maker is a natural person, this field shall indicate what type of identifier was used to identify the decision maker.</p>
29	Decision maker for the counterparty (where different from counterparty) - identification code	<p>Identification of the decision maker where the investment decision is not made by the counterparty and the counterparty is the reporting firm's client.</p> <p>Legal entity: If the decision maker is a legal entity, populate this field with the LEI code (or BIC or national code)²⁰⁷ of the decision maker.</p> <p>Natural person: If the decision maker is a natural person, this field shall be populated with either a unique national number, passport number or a unique identifier assigned by the investment firm. To determine which identifier must be used, please see the relevant section of the Discussion Paper entitled 'the information and details of the client and a designation to identify the clients on whose behalf the investment firm has executed the transaction'.</p>
Fields 30 to 38 are only applicable where the client is the reporting firm's counterparty and the decision maker is a natural person. ESMA is currently considering the most effective way of populating the client and decision maker information in transaction reports:		
30	Decision maker for the counterparty - first name	Text field.
31	Decision maker for the counterparty – surname 1	Text field.
32	Decision maker for the counterparty – surname 2	Text field. This will contain the second surname of the decision for the counterparty (if applicable).
33	Decision maker for the counterparty - date of birth	ISO 8601 date format.
34	Decision maker for the counterparty - country of residence	ISO 3166 two character country code.

²⁰⁶ See sub-section "Assigning client designations" on legal persons

²⁰⁷ See sub-section "Assigning client designations" on legal persons

35	Decision maker for the counterparty - post code or ZIP code	Post code or ZIP code in a standardised format.
36	Decision maker for the counterparty - detailed address	Text field.
37	Client identification code type	<p>The type of code used to identify the beneficiary of the transaction.</p> <p>Legal entity: Populate this field with the word “LEI” (or word indicating the code type for BIC or national code)²⁰⁸.</p> <p>Natural person: If the client is a natural person, this field shall indicate what type of identifier was used to identify the client.</p>
38	Client identification code	<p>Identification of the beneficiary of the transaction.</p> <p>Legal entity: Populate this field with the LEI code (or BIC or national code)²⁰⁹ of the client.</p> <p>Natural person: If the client is a natural person, this field shall be populated with either a unique national number, passport number or a unique identifier assigned by the investment firm²¹⁰.</p>
Fields 40 to 46 are only applicable where the client is a natural person. ESMA is currently considering the most effective way of populating the client and decision maker information in transaction reports:		
40	Client - first name	Text field.
41	Client – surname 1	Text field.
42	Client – surname2	Text field. This shall contain the second surname of the client (if applicable).
43	Client - date of birth	ISO 8601 date format.
44	Client - country of residence	ISO 3166 two character country code.
45	Client - post code or ZIP code	Post or ZIP codes in a standardised format.
46	Client - detailed address	Text field.
47	Decision maker for the client (where different from the client)	Type of code used to identify the decision maker where the investment decision is not made by the beneficiary of the transaction.

²⁰⁸ See sub-section “Assigning client designations” on legal persons

²⁰⁹ See sub-section “Assigning client designations” on legal persons

²¹⁰ To determine which identifier must be used, please see the relevant section of the Discussion Paper entitled ‘assigning client designation’, subsection on ‘natural persons’ (paragraphs 37-48) and the diagram on client ID (Annex 8.1.2).

	identification code type	<p>Legal entity: Populate this field with the word “LEI” (or word indicating the code type for BIC or national code)²¹¹.</p> <p>Natural person: If the decision maker for the client is different from the client and is a natural person, this field shall indicate what type of identifier was used to identify the decision maker.</p>
48	Decision maker for the client (where different from the client) identification code	<p>Identification of the decision maker where the investment decision was not made by the beneficiary of the transaction.</p> <p>Legal entity: Populate this field with the LEI code (or BIC or national code)²¹² of the decision maker.</p> <p>Natural person: If the decision maker for the client is different from the client and is a natural person, this field shall be populated with either a unique national number, passport number or a unique identifier assigned by the investment firm. To determine which identifier must be used, please see the relevant section of the Discussion Paper entitled ‘the information and details of the client and a designation to identify the clients on whose behalf the investment firm has executed the transaction’.</p>
Fields 49 to 55 are only applicable where the decision maker is a natural person. ESMA is currently considering the most effective way of populating the client and decision maker information in transaction reports:		
49	Decision maker for the client - first name	Text field.
50	Decision maker for the client – surname 1	Text field.
51	Decision maker for the client – surname 2	Text field. This will contain the second surname of the decision for the client (if applicable).
52	Decision maker for the client date of birth	ISO 8601 date format.
53	Decision maker for the client - country of residence	ISO 3166 two character country code.
54	Decision maker for the client - post code or ZIP code	Post code or ZIP code in a standardised format.

²¹¹ See sub-section “Assigning client designations” on legal persons

²¹² See sub-section “Assigning client designations” on legal persons

55	Decision maker for the client - detailed address	Text field.
56	Instrument identification code type	<p>This field contains the code type used to identify the financial instrument for the transaction. ²¹³</p> <p>The letter “I” shall be used where the financial instrument is admitted to trading or traded on a trading venue and the ISIN is the instrument method of identification in that venue.</p> <p>The letter “A” where the financial instrument is admitted to trading or traded on a trading venue and the ISIN is not the instrument method of identification in that venue.</p>
57	Instrument identification code	This field contains the instrument identification of the financial instrument involved in the transaction that is either the ISO 6166 ISIN or Aii code (the information regarding the 6 mandatory fields).
58	Instrument classification type	This field contains the designation of the taxonomy used in the instrument classification field (field 59)
59	Instrument classification	Classification of the instrument through a taxonomy that has been endorsed by ESMA.
60	Ultimate underlying instrument identification code type	<p>Code type used to identify the ultimate underlying.</p> <p>The letter “I” shall be used if the ultimate underlying instrument is identified using an ISO 6166 ISIN.</p> <p>Indices and baskets: ESMA is currently considering how firms should populate this field for derivatives over an indice or basket and would welcome feedback on this issue.</p> <p>Non-securities derivatives: ESMA is considering how firms should populate this field to identify the ultimate underlying instrument in the case of non-securities derivatives and would welcome feedback on this issue.</p>
61	Ultimate underlying instrument code	<p>Identification of the ultimate underlying.</p> <p>This field shall be populated with the ISO 6166 ISIN if that is the method of identification for that instrument on that venue.</p> <p>Indices and baskets: ESMA is currently considering how firms should populate this field for derivatives over an indice or basket and would welcome feedback on this issue.</p> <p>Non-securities derivatives: ESMA is considering how firms should populate this field to identify the ultimate underlying instrument in the case of non-securities derivatives and would</p>

²¹³ ESMA will publish a list of financial instruments on its website. The list will set out the method of identification (ISIN or Aii) for the financial instruments displayed on the website, however this list will not be exhaustive.

		welcome feedback on this issue.
62	Put/call identifier	Indication as to whether the derivative contract is a call or a put. P = Put C= Call
63	Strike price	Strike price of an option or warrant.
64	Up-front payment	Amount of any up-front payment the reporting firm made or received.
65	Delivery type	Indication as to whether the financial instrument is settled physically or in cash.
66	Option style (exercise)	Indication as to whether the option may be exercised only at a fixed date (European, and Asian style), a series of pre-specified dates (Bermudan) or at any time during the life of the contract (American style). This field does not have to be populated for ISIN instruments.
67	Maturity date	Original date of expiry of the reported financial instrument.
68	Early termination date	Termination date of the reported financial instrument (if different from the maturity date).
69	Trader (investment decision) identification code type	Type of code used to identify the person within the reporting firm who made the investment decision. Natural person: If an individual trader made the investment decision, this field shall indicate what type of identifier was used to identify the trader. In case of a committee decision: this field shall be populated with the word “COM”.
70	Trader (investment decision) - identification code	Identification of the person within the reporting firm who made the investment decision. Natural person: If an individual trader made the investment decision, this field shall be populated using the same rules as with assigning client identifiers (e.g. unique national number, passport number or unique identifier assigned by the investment firm) ²¹⁴ . If the investment decision was made by a committee within the

²¹⁴ To determine which identifier must be used, please see the relevant section of the Discussion Paper entitled ‘assigning client designation’, subsection on ‘natural persons’ and the diagram on client ID (Annex 8.1.2).

		investment firm, this field shall be populated with a unique code starting with the prefix “COM”.
71	Trader (investment decision) - first name	Text field.
72	Trader (investment decision) – surname 1	Text field.
73	Trader (investment decision) – surname 2	Text field. This will contain the second surname of the trader who made the investment decision (if applicable).
74	Trader (execution) - identification code type	Type of code used to identify the person within the reporting firm who executed the transaction. Natural person: This field shall indicate what type of identifier was used to identify the trader responsible for execution of the transaction.
75	Trader (execution) - identification code	Identification of the person within the reporting firm who was responsible for execution of the transaction. Natural person: This field shall be populated using the same rules as with assigning client identifiers (eg. unique national number, passport number or unique identifier assigned by the investment firm). To determine which identifier must be used, please see the relevant section of the Discussion Paper entitled ‘the information and details of the client and a designation to identify the clients on whose behalf the investment firm has executed the transaction’.
76	Trader (execution) first name	Text field.
77	Trader (execution) – surname 1	Text field.
78	Trader (execution) – surname 2	Text field. This field shall contain the second surname of the trader responsible for execution of the transaction (if applicable).
79	Algorithm (investment decision) - identification code	This field shall be populated with the designation for the algorithm within the investment firm which was responsible for the investment decision.
80	Algorithm (execution) - identification code	This field shall be populated with the designation for the algorithm within the investment firm which was responsible for execution of the transaction.
81	Short selling flag	This field indicates whether the transaction was a short sale as defined in Article 2(1)(b) of Regulation (EU) 236/2012.

		<p>Where the reporting firm acted in an agency capacity and the client is short, this field shall indicate that this was a short sale transaction.²¹⁵</p> <p>Where the reporting firm acted in a principal capacity on its own behalf, the firm shall flag whether the transaction was a short sale.</p> <p>Where the reporting firm acted in a principal capacity on behalf of a client, this field may need to be populated.²¹⁶</p>
82	SSR exemption flag	This field indicates whether the transaction falls under one of the exemptions contained in Article 17 of the Short Selling Regulation (EU) 236/2012 in relation to market making activities or primary market operations.
83	Waiver flag	This field identifies the pre-trade transparency waiver used in accordance with Article 4 and 9 of MiFIR.
84	OTC post-trade identifier flag	This field shall contain a designation identifying the type of transaction in accordance with Articles 20(3)(a) and 21(5)(a) of MiFIR.
85	Commodity derivative flag	This field is only applicable where the relevant financial instrument is a commodity derivative. This field shall contain an indication of whether the transaction reduces risk in an objectively measurable way in accordance with Article 57 of MiFID II.
86	Compression	This field shall be populated with a flag if the reported transaction resulted from a compression exercise.
87	Option exercise	This field shall indicate whether the reported transaction was the result of the exercise of an option.
88	Repo flag	This field shall indicate if the reported transaction was a repo transaction.
89	Order(s) sent to third party	Flag to indicate whether the reported transaction results from an order sent by the reporting firm on behalf of a client to a third party where the conditions for transmission set out in section II.II were not satisfied.

²¹⁵ ESMA's current proposal is to adopt a simple flagging regime for indicating whether a transaction is a short sale transaction. This would involve using one of two possible identifiers (eg. "Y" or "N"). This is currently subject to consultation – for further information, please see the relevant section of the Discussion Paper entitled 'Designation to identify a short sale'.

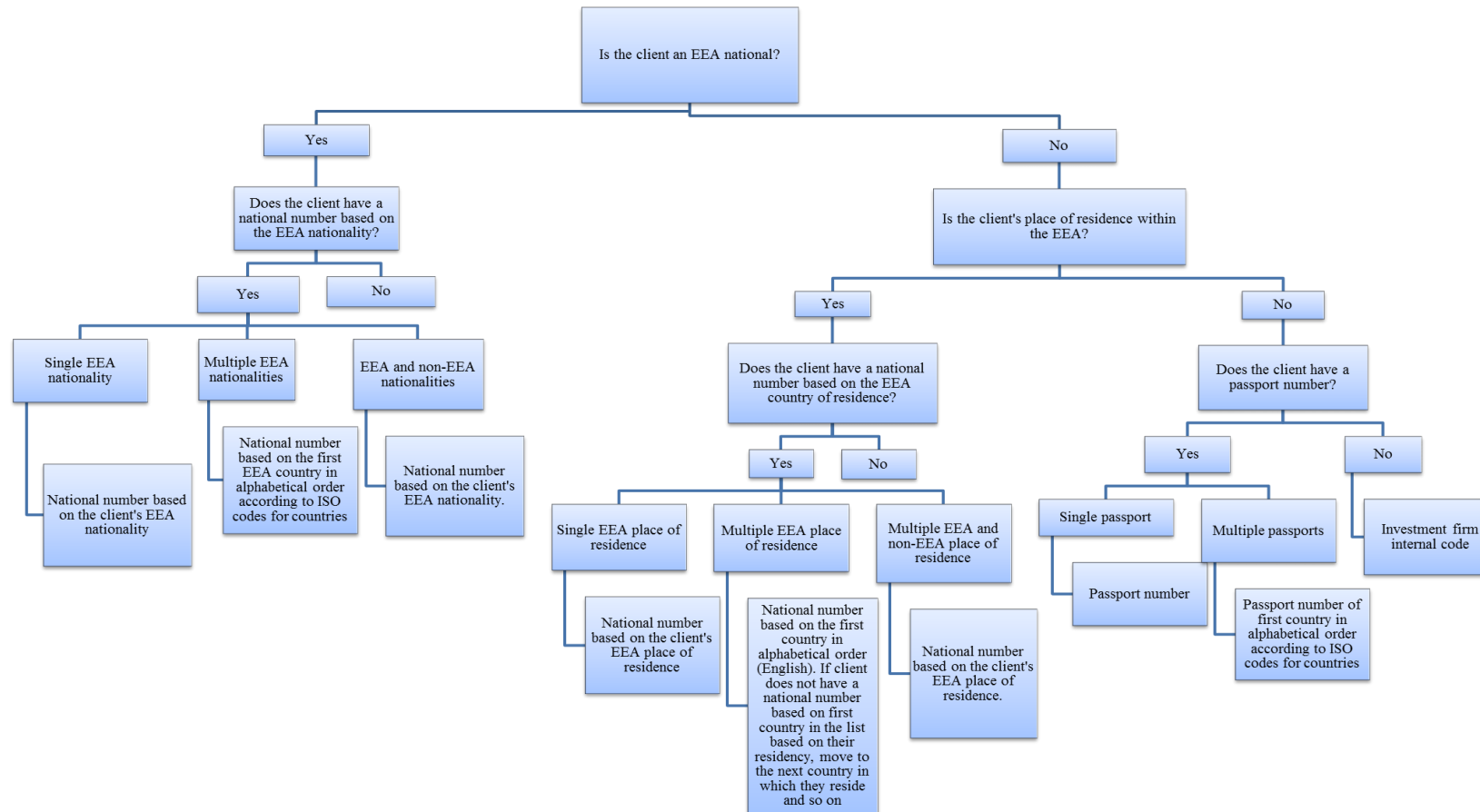
²¹⁶ This is currently subject to consultation – for further information, please see the relevant section of the Discussion Paper entitled 'Investment firm acting in a principal capacity'.

		This field will only need to be populated where the reporting firm is transmitting an order.
90	Order transmitter	<p>If the reporting firm (in this case, it is the ‘receiving’ firm) has received a transmitted order which meets the conditions for transmission for the purpose of Article 26(4) of MiFIR, then the reporting firm shall identify the entity which transmitted the order to them.</p> <p>The order transmitter shall be identified using the LEI code (or BIC or national code)²¹⁷.</p> <p>This field will only need to be populated where the reporting firm is receiving an order.</p>
91	Report Matching Number	<p>This field should be the same among groups of reports which relate to the same execution. This number shall be consistent across the different parties to the trade so that the transaction reports pertaining to the same trade can be grouped together.</p> <p>Where the transaction is executed on a trading venue and the trading venue generates a unique number to identify the trade, the reporting firm shall use this number as the transaction matching number²¹⁸.</p> <p>Where the transaction is concluded OTC, this unique number shall be agreed upon between the different parties.</p>
92	Transaction reference number	<p>This field shall contain a unique identification number for each transaction report, this number being internal to the reporting entity.</p> <p>This code enables investment firms to identify the transaction report from their internal records in order to:</p> <ul style="list-style-type: none"> • provide the NCA with more information about the transaction; • cancel/amend the transaction report.
93	Report status	<p>Indication as to whether the transaction was cancelled or has another status.</p> <p>ESMA is currently considering what other statuses may be populated here.</p>

²¹⁷ See sub-section “Assigning client designations” on legal persons

²¹⁸ This will enable competent authorities to link the trade executed in the venue with the corresponding transaction report. This will also enable orders submitted to trading venues to be linked to executed transactions.

Annex 8.1.2. Diagram on client ID



8.2. Obligation to supply financial instrument reference data

Background/Mandate/Empowerment

1. Article 27 of MiFIR requires ESMA to develop technical standards in relation to the obligation to supply reference data:

Article 27(3), MiFIR.

ESMA shall develop draft regulatory technical standards to specify:

- (a) data standards and formats for the financial instrument reference data in accordance with paragraph 1, including the methods and arrangements for supplying the data and any update thereto to competent authorities and transmitting it to ESMA in accordance with paragraph 1, and the form and content of such data;*
- (b) the technical measures that are necessary in relation to the arrangements to be made by ESMA and the competent authorities pursuant to paragraph 2.*

Reasons and frequency of updates of instrument reference data

2. Article 27 of MiFIR and Article 4 MAR establish that trading venues and systematic internalisers have the obligation to provide their NCA with the instrument reference data for all instruments that are admitted to trading or being traded on their venue, for which there has been a request for admission to trading or traded on the systems of a systematic internaliser. The CA in its turn should provide this data to ESMA who will make it available on its website.
3. Based on the fact that both articles refer to similar data, ESMA considers it appropriate to maintain a single list of instruments, which will fulfil the obligations laid out in both regulations.
4. Although the data required under the two regulations is broadly aligned, not all requirements for its submission and update are completely identical. One of the major differences lies in the required update frequency.
5. MiFIR text requires trading venues and systematic internalisers to update the data whenever there are changes to the instrument reference data.
6. The text in MAR requires trading venues to send instrument reference data at certain moments in time. These are:
 - i. First notification:
 - a. When a request for admission to trading is submitted; or
 - b. When the instrument is admitted to trading; or
 - c. When trading commences.
 - ii. Second notification:

- a. When the instrument ceases to be traded; or
- b. When the instrument ceases to be admitted to trading.

(except where this information is known in advance and is included in the first notification).

7. ESMA believes that these two instances for submission of notifications under MAR are not sufficient to keep track of all relevant updates to the instrument reference data, particularly if ESMA is to maintain one common list of reference data in accordance with requirements under the two Regulations.
8. There are many reasons why the instrument reference data might change. ESMA believes that the following could be considered as the main reasons for updates; however it notes that this list should not be considered as complete or exhaustive:
 - i. Corporate Actions.
 - a. (Reverse) Stock Split
 - b. Claim emission
 - c. Super dividend
 - d. Stock dividend
 - ii. Issuance of new/existing instruments
 - iii. Conversion of a convertible bond or warrant
 - iv. Name change of the Issuer
 - v. Takeover / Merger
 - vi. Buyback programs leading to the reduction of the number of instruments.
9. Depending on the reason for the update, one or more reference data elements might require to be updated. For instance, a name change of the issuer will result in a new name and might result in a new ISIN code.
10. Where an instrument, the reference data for which need to be updated, is being referenced as an underlying of one or more derivative instruments, reference data of multiple derivatives might need to be updated because of the change to this underlying instrument. For instance, where a stock pays out a super dividend, the price multiplier for all its listed options might be adjusted accordingly. This could also result in the generation of new ISINs or, in the case of derivative contracts identified by an Alternative Instrument Identifier (Aii) code, new Aii exchange product codes.
11. The updates of the instrument reference data for the instrument and its derivatives will normally be aligned, however there are cases for which these updates do not coincide. In case of a claim emission on a stock that has listed options, the instrument reference data of the instrument itself will be updated at the moment the claims are exercised (number of instrument will change), however the reference

data for the listed options will be updated at the moment the claim has been split of (price multiplier). Normally this will occur two weeks prior to the exercise date.

12. Some reference data elements are likely to be updated during the instruments lifecycle:
 - i. Number of instruments will change whenever there is a (reverse) stock split or an issuance and might change in case of a merger or takeover or due to a buyback program.
 - ii. Instrument Code might change due to corporate actions and name changes, or in case of corporate actions of the underlying instruments.
 - iii. Underlying Instrument Code might be updated in case the instrument code of the underlying instrument has been updated.
 - iv. Price Multiplier might be updated in case of a corporate action of the underlying instrument.
 - v. Instrument reference data might be updated on the issuer's request.

13. For instrument data updates, two models could be considered:
 - i. The delta approach in which updates only to the modified/updated instruments reference data elements are sent.
 - ii. A full list approach in which a complete reference data list for all instruments for a given venue/systematic internaliser is sent each day.

14. The delta approach is in line with the wording in MiFIR and MAR, where an update is required whenever it occurs or when prescribed. However, each trading venue and systematic internaliser would still have to send a full file containing the reference data for new instruments on their trading venue or traded on their systematic internaliser. This means that they will have to implement both a delta file and a full file. This is the major disadvantage for the delta approach, as this is more costly to implement.

15. A list of pros and cons for the delta approach are:

PROS	CONS
Less data has to be forwarded to and processed by ESMA / CA.	In case of errors, like a file missing, or some instruments being rejected, this approach will result in incorrect data for the rejected or missing instruments.

16. A list of pros and cons for the full file approach are:

PROS	CONS
In case of errors, like a file missing, or some	A lot more data has to be forwarded to and pro-

instruments being rejected, the next day's full file will reinstate/correct the missing/erroneous data.	cessed by ESMA / CA.
---	----------------------

17. In order to benefit from the strong points of both approaches a combined approach could be envisaged, which means that each n days a full file is being processed, while on the days in between a delta file is processed. This approach benefits from a reduction of processing, while lost changes will surely be captured within n days when the next full file is being processed.

Q568: Do you anticipate any difficulties in providing, at least daily, a delta file which only includes updates?

Q569: Do you anticipate any difficulties in providing, at least daily, a full file containing all the financial instruments?

Q570: Do you anticipate any difficulties in providing a combination of delta files and full files?

Timelines for submitting information about financial instruments

Context

18. Article 4(3) of the MAR determines that market operators/investment firms operating trading venues have to provide certain details of each financial instrument traded, admitted to trading or for which a request for admission to trading has been made. Those market operators/investment firms also have to inform their NCA when the financial instrument ceases trading or ceases to be admitted to trading on those trading venues. That information has to be reported to the NCAs without delay and must include the names and identifiers of the financial instruments and the date and time of the events above.
19. The information collected by the NCAs will then be transmitted to ESMA so that it can be published on the ESMA's website for transparency purposes. The list of financial instruments will be updated when new notifications are received from a NCA.
20. In addition, Article 27 of MiFIR requires the operators of trading venues and investment firms acting as systematic internalisers to provide their NCAs with reference data information on each financial instrument traded on their trading venue or systematic internaliser. The same article determines that the notifications have to be ready for submission to the NCAs before trading commences and whenever there are changes to the previously submitted data.
21. The reference data collected by the NCAs under MiFIR would include a number of reference data fields associated with the instrument identifier. Those fields are used for validating and enhancing the transaction reports. Therefore, it is vital that the reference data received from the operators of trading venues and investment firms acting as systematic internalisers is reliable and on time. Moreover, the reference data is also used to identify the relevant NCA for a given instrument.
22. Article 27 of MiFIR, like Article 4 of MAR, also requires ESMA to publish on its website the information or part of the information contained in the market's notifications.

23. In both MAR and MiFIR, ESMA has to draft regulatory and implementing technical standards to determine certain elements of the notifications. One of the technical standards is the timing of those notifications.
24. Article 4(1) of MAR seems to envisage that market operators and investment firms have to notify without delay the NCAs of the relevant information. This could presuppose real time flow of notifications which would potentially raise technical difficulties for both the NCAs and the industry. A suitable solution needs to accommodate the shortness of time implicit in the requirements while catering for technical constraints.
25. ESMA believes that there are noteworthy differences between cash markets and derivatives markets in terms of the number of changes occurring in their respective financial instruments. While in derivatives markets some derivatives contracts are created intraday, i.e during the trading session, this is less likely in cash markets.
26. A balanced solution could be to have market operators/investment firms providing the information about the financial instruments twice per day (one flow early morning and another flow in the evening). The early morning flow would allow for potential overnight changes to be promptly captured (particularly common in the derivatives market) and the evening one would include any remaining changes that occurred during the day.
27. Once the information is received by the NCA, it will be forwarded to ESMA so that the relevant elements are displayed to the market as determined by Article 4(2) of MAR and Article 27 of MiFIR.

Q571: Do you anticipate any difficulties in providing details of financial instruments twice per day?

Q572: What other aspects should ESMA consider when determining a suitable solution for the timeframes of the notifications? Please include in your response any foreseen technical limitations.

Fields to be reported as instrument reference data

28. Given the large diversity of financial instruments which are admitted to trading or traded on trading venues within the EU and the extension of scope upon the MiFID review, the information needed may vary with the classification of such instruments. ESMA believes that an appropriate classification would be useful for CAs to classify instruments into homogeneous categories.
29. One existing possible example of considered classification is the standard defining format for the CFI (Classification of Financial Instruments) code maintained by the International Organization for Standardization (ISO), known as the ISO 10962 (2001 version). Certain trading venues already transmit to their NCA a file which contains financial instruments classified through the CFI code. Un-

der the ISO 10962 standard²¹⁹, securities and related financial instruments are divided into the following categories:

- i. Equities
- ii. Debt
- iii. Entitlements (rights)
- iv. Options
- v. Futures
- vi. Others (miscellaneous)

30. ESMA understands there are some alternative classifications being developed which could be suitable to use in this specific area.

EQUITIES

Field name	Comments
Instrument classification	An appropriate classification
Identifier of the financial instrument	ISIN code
Instrument Full Name	
Issuer Identifier	Legal entity identifier code (LEI)
Issuer Name	As recorded on the official register within each Country State
Issuer Country	The two character ISO 3166 code should be used. It needs to be consistent with the country code in the reference data for the LEI, which is provided in the 'Issuer Identifier'.
Ultimate issuer name (applicable to ADR and GDR)	
Ultimate issuer country code (applicable to ADR and GDR)	The two character ISO 3166 code should be used. It needs to be consistent with the country code in the reference data for the LEI, where applicable.
Total number of issued financial	This number represents the total number of shares issued by

²¹⁹ ESMA is aware of the ISO intention to expand the CFI classification to include emission allowances and other additional instruments

instruments	the company. It does not represent the free float or the number of shares which were distributed through a public offer
Trading venue - / Systematic Internaliser	MIC (trading venue) or an identifier for a Systematic Internaliser
Date of admittance on the trading venue	
Termination (delisting) date of trading	It should correspond to the date when the equity is delisted from the relevant trading venue when applicable.

Issues to consider

Number of equities

31. The number of equities which are admitted to trading on a trading venue corresponds to the total number of issued equities even if only a limited number of equities were proposed to the public. In fact, when a public offer occurs on specific equities, all issued equities can be traded on a trading venue irrespective of the number of equities purchased by the investors in the course of a public offer.

ADR and GDR

32. The issuers of ADRs or GDRs are distinct entities from the underlying issuers. However, the purpose of the MAR is to identify the underlying issuer. Accordingly, ESMA suggests that: the issuer's fields should be populated with the LEI of the issuer of the ADR or GDR and the Ultimate issuers fields should be populated with the information regarding the issuer of the underlying financial instrument.

DEBT

Field name	Comments
Instrument classification	An appropriate classification
Identifier of the financial instrument	ISIN code
Instrument Full Name	
Issuer Identifier	Legal entity identifier code (LEI)
Issuer Name	Full name as recorded in the register of companies of the Member State. In case of a sovereign issuer, this field should be populated with the Country State name.
Issuer Country	The two character ISO 3166 code should be used. It needs to be consistent with the country code in the reference data for the

	LEI, which is provided in the 'Issuer Identifier'.
Issuer Type	Type of issuer, for instance: Sovereign, Municipal, Financial or non-financial Corporate
Ultimate Issuer Name	
Ultimate issuer country code	The two character ISO 3166 code should be used. It needs to be consistent with the country code in the reference data for the LEI, where applicable.
Total number of issued financial instruments	
Total issued nominal amount	
Trading venue / Systematic Internaliser	MIC (trading venue) or an identifier for a Systematic Internaliser
Date of admittance on the trading venue	
Nominal Value per unit/minimum traded value	Nominal value of each instrument. If not available, the minimum traded value should be populated
Currency of Nominal Value	
Termination (delisting) date of trading	It should correspond to the date when the financial instrument is delisted from the relevant trading venue
Maturity date	
Issuer's group	
LEI of the Guarantor of the issuer	
Guarantor's Group	All NCAs are required to file the list of bonds to the ECB with this information (similar requirement from the EBA). The list of guarantor's groups is disclosed on the ECB website. According to the ECB's classification, there are eight groups of issuers: Central banks, Central governments, Corporate and other guarantors, Regional/local governments, supranational issuers, Agencies/non credit institutions, Agencies/credit institutions.
Fix rate bonds : Level of the fix rate	In percentage (e.g.: 4.5%)
Identifier of the Index/benchmark of a floating rate bond+ bp at	Where an identifier exists; Where no identifier exists, standardized names will be necessary (e.g.:EURIBOR6M+ XX bp, LI-

issuance	BOR3M-XX bp), etc
Seniority of the bond	The database should identify the type of bond: senior debt, mezzanine, subordinated or junior.
Issuance Price	
Issuance price notation	
Reimbursement price	
Currency of the Reimbursement	

ENTITLEMENTS (RIGHTS)

Field name	Comments
Instrument classification	Any appropriate classification
Identifier of the financial instrument	ISIN code
Instrument Full Name	
Issuer Identifier	Legal entity identifier code (LEI)
Issuer Name	As recorded on the official register within each Member State
Issuer Country	The two character ISO 3166 code should be used. It needs to be consistent with the country code in the reference data for the LEI, which is provided in the 'Issuer Identifier'.
Total number of issued financial instruments	
Price Multiplier	
Trading venue / Systematic Internaliser	MIC (trading venue) or an identifier for a Systematic Internaliser
Date of admittance on the trading venue	
Termination (delisting) date of trading	It should correspond to the date when the entitlement is delisted from the relevant trading venue
Identifier of the ultimate underlying financial instrument or under-	ISIN code

lying index where applicable	
Country of the underlying Index	Where applicable the two character ISO 3166 code should be used.
Exercise price	Where applicable
Currency of the Exercise Price	Where applicable
Maturity date	Where applicable
Option style	Where applicable (European or US style , others)

OPTIONS

Field name	Comments
Instrument classification	Any appropriate classification
Identifier of the financial instrument	ISIN code or Aii code
Type of Identifier of the financial instrument	ISIN/Aii
Instrument Full Name	
Issuer Identifier	Legal entity identifier code (LEI) of the trading venue
Price Multiplier	
Trading venue/Systematic Internaliser	MIC code or an identification for a Systematic Internaliser The trading venue shall be considered as the issuer of the financial instrument
Date of admittance on the trading venue	
Termination (delisting) date of trading	It should correspond to the date when the option contract is delisted from the relevant trading venue
Identifier of the ultimate underlying financial instrument or underlying index where applicable	ISIN code where applicable / identifier of index where applicable
Country of the underlying Index	Where applicable

Exercise price	Where applicable
Currency of the Exercise Price	Where applicable
Maturity date	Where applicable

FUTURES

Field name	Comments
Instrument classification	Any appropriate classification
Identifier of the financial instrument	ISIN code or Aii code
Type of Identifier of the financial instrument	ISIN/Aii
Instrument Full Name	
Issuer Identifier	Legal entity identifier code (LEI) of the trading venue
Price Multiplier	
Trading venue/Systematic Internaliser	MIC code or an identification for a Systematic Internaliser The trading venue shall be considered as the issuer of the financial instrument
Date of admittance on the trading venue	
Termination (delisting) date of trading	It should correspond to the date when the future contract is delisted from the relevant trading venue
Identifier of the ultimate underlying financial instrument or underlying index where applicable	ISIN code where applicable / identifier of index where applicable
Country of the underlying Index	Where applicable the two character ISO 3166 code should be used.
Maturity date	Where applicable

EMISSION ALLOWANCES

Field name	Comments
Instrument classification	EA (Emission Allowance)
Identifier of the financial instrument	Include the appropriate acronym. For example: EUA, EUAA, CER, ERU
Instrument Full Name	Include the name of the emission allowance. For example: European Allowance European Aviation Allowance Certified Emission Reductions Emission Reduction Units
Issuer Name	It should correspond to the issuer of each type of emission allowance. For example: European Union, Clean development Mechanism (CDM) or a Joint Implementation (JI).
Issuer Country	EU
Total number of issued financial instruments	This number represents the total number of emission allowances issued by the EU for this program.
Trading venue - / Systematic Internaliser	MIC (trading venue) or an identifier for a Systematic Internaliser
Date of admittance on the trading venue	
Termination (delisting) date of trading	It should correspond to the date when the emission allowance is delisted from the relevant trading venue when applicable.

OTHERS

Field name	Comments
Instrument classification	Any appropriate classification
Identifier of the financial instrument	ISIN code or Aii code
Type of Identifier of the financial instrument	ISIN/Aii
Instrument Full Name	

Issuer Identifier	Legal entity identifier code (LEI)
Issuer Name	As recorded on the official register within each Member State
Issuer Country	Need to be populated for others financial instruments. It needs to be consistent with the country code in the reference data for the LEI, which is provided in the 'Issuer Identifier'.
Total number of issued financial instruments	Where applicable
Price Multiplier	
Trading venue/Systematic Internaliser	MIC (trading venue) or an identifier for a Systematic Internaliser
Date of admittance on the trading venue	
Termination (delisting) date of trading	It should correspond to the date when the instrument is delisted from the relevant trading venue
Identifier of the ultimate underlying financial instrument or underlying index	ISIN code where applicable / identifier of the index where applicable
Country of the underlying Index	
Maturity Date	Where applicable

33. This group includes other financial instruments not specifically covered in the other sections like for example swaps or contracts for difference.

34. This group should only include financial contracts as opposed to securities which are exclusively covered in sections on equities, debt and entitlements.

Q573: Do you agree with the proposed fields? Do trading venues and investment firms have access to the specified reference data elements in order to populate the proposed fields?

Q574: Are you aware of any available industry classification standards you would consider appropriate?

Q575: For both MiFID and MAR (OTC) derivatives based on indexes are in scope. Therefore it could be helpful to publish a list of relevant indexes. Do you foresee any difficulties in providing reference data for indexes listed on your trading venue? Furthermore, what reference data could you provide on indexes?

Rules to establish the Relevant Competent Authority for a given instrument.

35. Under current MiFID there is a set of rules to determine the relevant competent authority (RCA) for a given instrument. This information is used by NCAs to route the transactions received by their local systems to the other NCAs and by investors to establish where they need to report their short positions. ESMA expects that this information might be used in particular for market surveillance or for other regulations (transparency purposes) as well in the future.
36. The rules for determining the RCA vary between equity, debt and derivatives instruments.
37. For equity instruments, the RCA is established on the basis of the trading venue where the instrument is first admitted to trading or on the basis of the trading venue with the highest turnover for the given equity instrument.
38. For debt instruments, the principle for RCA determination is broadly based on the country of the ultimate issuer.
39. For derivatives, the RCA is established based on the RCA of the underlying instrument.
40. ESMA believes that the current set of RCA determination rules work appropriately for most instruments and therefore does not intend to change the existing rules and procedures. However, ESMA notices that some instruments are not covered by the current set of rules²²⁰.
41. Instruments that are currently not covered by the RCA rules are mainly debt instruments with a non-EEA issuer and derivatives where the ultimate underlying has no ISIN (e.g. commodities), is a basket or is a non-EEA index.

Q576: Do you agree with ESMA's intention to maintain the current RCA determination rules?

Q577: What criteria would you consider appropriate to establish the RCA for instruments that are currently not covered by the RCA rule?

²²⁰ The number of instruments not covered by the RCA determination rules will increase under MiFIR given the extension of the transaction reporting scope.



Annex 8.2.1. Summary Table of Instrument reference data

Equities	Debt	Entitlements (Rights)	Options	Futures	Emission Allowances	Others
Field name	Field name	Field name	Field name	Field name	Field name	Field name
Instrument classification	Instrument classification	Instrument classification	Instrument classification	Instrument classification	Instrument classification	Instrument classification
Identifier of the financial instrument - ISIN code	Identifier of the financial instrument - ISIN code	Identifier of the financial instrument - ISIN code	Identifier of the financial instrument - ISIN code or AII code	Identifier of the financial instrument - ISIN code or AII code	Identifier of the financial instrument	Identifier of the financial instrument - ISIN code or AII code
			Type of Identifier of the financial instrument – ISIN/AII	Type of Identifier of the financial instrument – ISIN/AII		Type of Identifier of the financial instrument – ISIN/AII
Instrument full name	Instrument full name	Instrument full name	Instrument full name	Instrument full name	Instrument full name	Instrument full name
Issuer identifier-LEI	Issuer identifier-LEI	Issuer identifier-LEI	Issuer identifier-LEI	Issuer identifier-LEI		Issuer identifier-LEI
Issuer name	Issuer name	Issuer name			Issuer name	Issuer name
Issuer country	Issuer country	Issuer country			Issuer country	Issuer country
	Issuer Type					
Ultimate issuer name (applicable to ADR and GDR)	Ultimate issuer name					
Ultimate issuer country code	Ultimate issuer country code					
Total number of issued financial instruments	Total number of issued financial instruments	Total number of issued financial instruments			Total number of issued financial instruments	Total number of issued financial instruments
	Total issued nominal amount	Price Multiplier	Price Multiplier	Price Multiplier		Price Multiplier
	Nominal value per unit/minimum traded value					
	Currency of Nominal Value					
Trading venue - MIC code/ Systematic Internaliser	Trading venue - MIC code/ Systematic Internaliser	Trading venue - MIC code / Systematic Internaliser	Trading venue - MIC code / Systematic Internaliser	Trading venue - MIC code / Systematic Internaliser	Trading venue - MIC code / Systematic Internaliser	Trading venue - MIC code / Systematic Internaliser
Date of admittance on the trading venue	Date of admittance on the trading venue	Date of admittance on the trading venue	Date of admittance on the trading venue	Date of admittance on the trading venue	Date of admittance on the trading venue	Date of admittance on the trading venue



Termination (delisting) date of trading	Termination (delisting) date of trading	Termination (delisting) date of trading	Termination (delisting) date of trading	Termination (delisting) date of trading	Termination (delisting) date of trading	Termination (delisting) date of trading
	Maturity date					
	Issuer's group	Identifier of the ultimate underlying financial instrument or underlying index where applicable	Identifier of the ultimate underlying financial instrument or underlying index where applicable	Identifier of the ultimate underlying financial instrument or underlying index where applicable		Identifier of the ultimate underlying financial instrument or underlying index
	LEI of the Guarantor of the issuer					
	Guarantor's Group	Country of the underlying Index	Country of the underlying Index-ISO code	Country of the underlying Index		Country of the underlying Index
	Fix rate bonds : Level of the Fix rate	Exercise price	Exercise price			
	identifier of the Index/benchmark of a floating rate bond + bp at issuance	Currency of the Exercise price	Currency of the Exercise price			
	Seniority of the bond	Maturity date	Maturity date	Maturity date		Maturity date (where applicable)
	Issuance Price	Option style				
	Issuance price notation					
	Reimbursement price					
	Currency of the Reimbursement					

8.3. Obligation to maintain records of orders

Background/Mandate/Empowerment

1. Article 25 of MiFIR requires ESMA to develop technical standards in relation to the obligation for trading venues to maintain records of orders.

Article 25 (3), MiFIR.

ESMA shall develop draft regulatory technical standards to specify the details of the relevant order data required to be maintained under paragraph 2 of this Article that is not referred to in Article 26.

Those draft regulatory technical standards shall include the identification code of the member or participant which transmitted the order, the identification code of the order, the date and time the order was transmitted, the characteristics of the order, including the type of order, the limit price if applicable, the validity period, any specific order instructions, details of any modification, cancellation, partial or full execution of the order, the agency or principal capacity.

Legal requirements

2. Article 25 of MiFIR requires that investment firms and operators of trading venues maintain records of the relevant data relating to all orders in financial instruments and keep the data at the disposal of the NCA for a definite period of time. The obligations imposed upon investment firms and trading venue operators in order to comply with this requirement are slightly different in respect of the nature and details of the data records to be maintained.
3. With regard to investment firms, Article 25(1) of MiFIR requires that they maintain records of the relevant data in relation to all orders and all transactions in financial instruments which they have carried out, irrespective of the trading capacity in which they have acted, be it trading on their own account (either on their own behalf or on behalf of a client) or on the account of and on behalf of a client. MiFIR further specifies that where transactions are carried out on behalf of a client, investment firms' transaction data records must include all the information and details of the identity of the client and the information required under the Anti-Money Laundering Directive²²¹. It is further specified that ESMA may request access to that information pursuant to ESMA's powers to request and collect information (under Article 35 of Regulation (EU) N° 1095/2010 establishing ESMA). It is also provided that investment firms must maintain their order and transaction data records for a period of five years.
4. With regard to trading venue operators, Article 25(2) requires that they maintain records of the relevant data in relation to "all orders in financial instruments which are advertised through their systems" for at least five years. The order records shall contain the relevant data that "constitute the characteristics of the order, including those that link an order with the executed transaction(s) that stems from that order".

²²¹ Directive 2005/60/EC of the European Parliament and of the Council of 26 October 2005 on the prevention of the use of the financial system for the purpose of money laundering and terrorist financing (Text with EEA relevance) (OJ L309, 25.11.2005, p. 15).

5. Regarding the requirement to keep the data at the disposal of the CA, ESMA understands Article 25(2) MiFIR as arranging for the data to be transmitted on request to the CA. The CA is not defined in the Article but should, in ESMA's view, be construed as referring to the home CA for the trading venue.²²².
6. Further to imposing record keeping obligations on investment firms and trading venue operators, Article 25 expressly mandates ESMA to develop draft RTS to specify “the details of the relevant order data required to be maintained under” Article 25(2) “that is not referred to in Article 26”. It also further specifies this particular data set as including “the identification code of the member or participant which transmitted the order, the identification code of the order, the date and time the order was transmitted, the characteristics of the order, including the type of order, the limit price if applicable, the validity period, any specific order instructions, details of any modification, cancellation, partial or full execution of the order, the agency or principal capacity”. ESMA notes that the list of data provided by Article 25 is explicitly not exhaustive, since Article 25(2) of MiFIR refers to the ‘characteristics of the order’, which envisages a broader range of elements than the ones specified in Article 25(3).
7. In light of the abovementioned MiFIR provisions and pursuant to its mandates, ESMA considers it important to make sure that the elaboration of the RTS under Article 25(3) relating to the data to be kept by trading venue operators adequately takes into account other closely related provisions on which ESMA is mandated to elaborate draft RTS in particular, RTS under Article 26 of MiFIR on transaction reporting obligation for investment firms and RTS under Article 17(2) of MiFID II on order records to be kept by investment firms that engage in a high frequency algorithmic trading technique.

Scope of ESMA's mandate

8. For the purpose of this DP, it should be noted that reference to orders includes quotations on trading venues; this is also consistent with the approach taken at Level 1 and in particular in Article 17(2) MiFID.
9. Pursuant to its mandate under Article 25(3), ESMA is to elaborate RTS to determine the details of the relevant order data not referred to in Article 26 which have to be maintained by trading venue operators. This raises the question as to whether the “details” to be determined only refer to a description of the elements to be maintained (*i.e.*, the content), or also refer to the format in which this information is to be maintained. For example, the content for “member or participant” shall relate to the identifier for the member or participant but the format shall be the LEI (20 alphanumeric digits). It is noteworthy that the mandate of Article 25 provides for a close link with the mandate under Article 26(9) (a).
10. At this stage, ESMA has identified three possible approaches regarding the level of harmonisation required pursuant to its mandate under Article 25(3) MiFIR:
 - i. an approach where the specified order data elements are to be maintained by the trading venues according to their internal rules, without imposing any requirements on the format in which the information needs to be maintained (**option 1**);

²²² This is on the basis that where competent authority is referred to in Article 26(1) of MiFIR it is referring to the competent authority to which transaction reports are primarily made.

- ii. an approach where all of the specified data elements are to be maintained in a specified format (**option 2**); and
- iii. an approach where only some specified order data elements are to be maintained by the trading venues in a specified format (**option 3**).

Option 1

11. Under this option ESMA determines the list of data elements that make up the relevant data that constitute the characteristics of an order to be maintained by trading venues under Article 25(3). Trading venues have to maintain the specified data elements in a format determined by the trading venue at its discretion but subject to a requirement that the data is maintained in a consistent way by the trading venue.

Advantages of option 1

12. This option would minimise costs for the trading venues since the data would be stored as per the trading venues' current systems. Moreover, there would not be any risk of losing important granular information since trading venues would not be converting the data.

Disadvantages of option 1

13. NCAs would receive the data from trading venues in different formats, requiring them to apply converters in order to compare the data for the purpose of cross-venue and cross-product monitoring which would involve costs for the CAs but also for trading venues (as the latter would have to be in a position to respond to CAs' requests). Conversion of the data by the CAs might lead to incorrect conversion or inconsistent conversion among CAs. For trading venues that have less granular/precise information, for example where the time is only captured in milliseconds, the data will be limited to that level of precision.

Option 2

14. Under this approach ESMA determines both:
 - i. The list of data elements that make up the relevant data that constitutes the characteristics of an order to be maintained under Article 25(3). and
 - ii. The formats according to which all these data elements shall be maintained.

Advantages of option 2

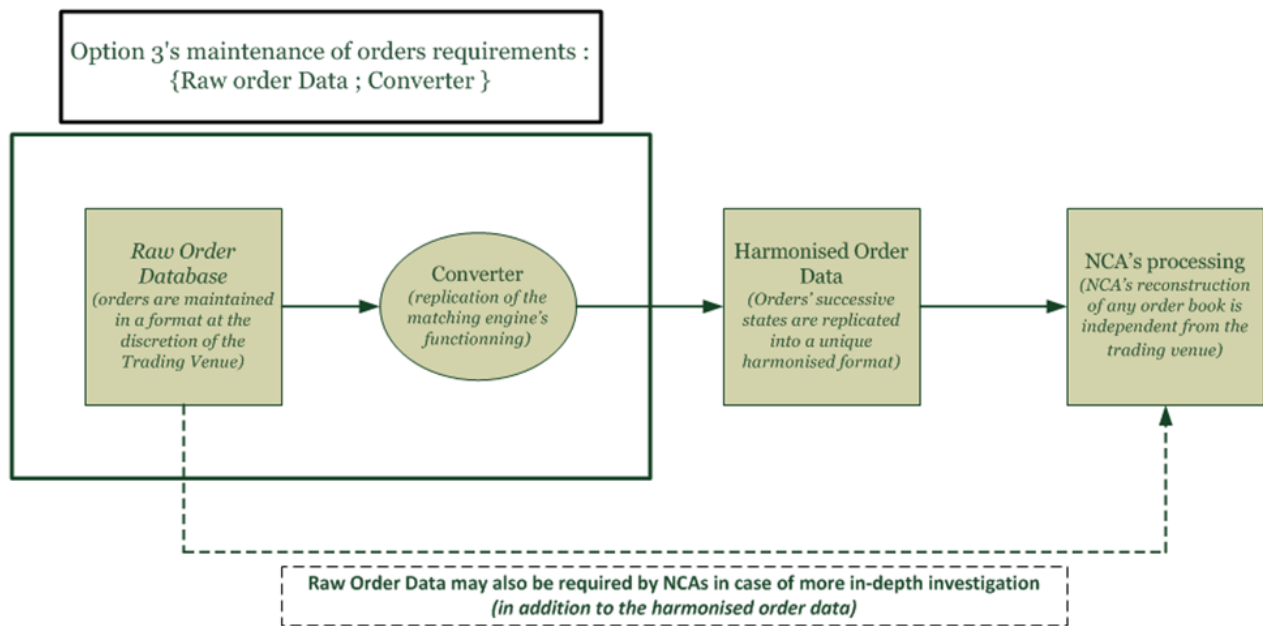
15. The data would be maintained by trading venues in a harmonised format making it easier for the CAs to compare the data from different trading venues for the purpose of their monitoring of markets' fair functioning and integrity in a context of increasing cross-venue trading. There would be no risk of incorrect or inconsistent conversion by the CAs. It should also be added that the ultimate purpose of every record keeping is for the records to be usable by the intended beneficiary that-is-to-say the NCA. This therefore calls for the harmonisation of formats across trading venues in order to allow CAs willing to access data from different trading venues to compare such data for the purpose of their monitoring of markets' fair functioning and integrity in a context of increasing cross-venue trading

Disadvantages of option 2

16. This would entail costs for the trading venues since this solution could potentially require the maintenance of two separate systems: the trading venue's trading system and a system with order data converted to the formats determined by ESMA. There is a risk that incorrect conversion by trading venues may result in misleading information being provided to the CAs and a risk that some relevant granularity of the data would be lost. These would have an adverse impact on the CAs' ability to accurately assess the data and could require follow up requests of raw data from the trading venue via the home NCA of that trading venue.

Option 3

17. This option is a combination of option 1 and option 2 in that it prescribes a particular format only for some specified data elements. At this stage, ESMA has identified some data elements that should be in a specified format, for example the identification code of the member or participant which transmitted the order, the identification code of the order and the date the order was transmitted received by the trading venue. The determination of which data elements should be in a specified format will be made at a later date if option 3 is chosen and will take into account feedback on the data elements that can be harmonised.
18. ESMA is considering two alternative ways of implementing this option:
 - i. according to the first methodology elaborated by ESMA, the specified data elements for which a particular format is prescribed should be converted into that specified format only upon request by the NCA. The other data elements could be maintained in a format determined by the trading venue at its discretion and would not be expected to be converted in the specified format upon the CA's request. In other words, trading venues should still maintain the specified order data elements under the format they are currently using but would have, upon request by the NCA, to be in a position to convert these elements into the specified format provided (i.e. conversion of the raw order data into harmonised order data); and



- ii. According to the second methodology, the specified data elements for which a particular format will be prescribed would have to be maintained in that specified format on an on-going basis. The other data elements should be maintained by the trading venue in a format determined by the trading venue at its discretion.

Advantages of option 3

19. This option would entail lower costs for the trading venues than option 2. It is envisaged that the elements to be harmonised should be relatively easy and less costly to harmonise than the more complex data. It would be easier for NCAs to compare this data across markets and across products: when compared with option 1, the risk of incorrect conversion is lower; when compared with option 2, the risk of loss of relevant granularity of the data is lower.

Disadvantages of option 3

20. This option would imply greater costs for trading venues than option 1. There may be a risk that incorrect conversion by trading venues may result in misleading information being provided to the NCAs and there is still some risk that some relevant granularity of the data would be lost, which would have an adverse impact on the NCAs' ability to accurately assess the data and could require follow up requests of raw data from the trading venue via the home NCA of that trading venue.

Q578: In your view, which option (and, where relevant, methodology) is more appropriate for implementation? Please elaborate.

Q579: In your view, what are the data elements that cannot be harmonised? Please elaborate.

Q580: For those elements that would have to be harmonised under Option 2 or under Option 3, do you think industry standards/protocols could be utilised? Please elaborate.

Purpose of the legal provisions

21. CAs may already request order data from regulated markets and experience shows that it is very valuable information for conducting market surveillance. Surveillance of orders is key for the purposes of:
 - i. market integrity through the detection of market manipulation of orders notably when it takes place on several trading venues (*e.g.* layering and quote-stuffing);
 - ii. the orderly and sound functioning of the markets through the analysis of major market incidents (*e.g.* flash crashes and algo glitches), the determination of their origin and the understanding of the domino effects on different trading venues (through the rebuilding of the chain of events on the basis of the different order-books);
 - iii. regulation by allowing CAs to anticipate and determine if and to what extent new market regulation affects market microstructure and participants.
22. While transaction data as reported by every EEA investment firm under MIFID 1 (and future MiFIR) are essential for market surveillance, experience has shown that they are not sufficient and need to be supplemented by order data. The aim of this is that where a CA requests order data related to a specific period of time from a trading venues, it is able to obtain an accurate picture of every change that has impacted the market.

Relevant data constituting the characteristics of the order, including those that link an order with the executed transactions

23. The RTS to be prepared by ESMA pursuant to Article 25(3) shall specify the details of the relevant data that constitutes the characteristics of the order that are not referred in Article 26, including those that link an order with the executed transaction(s) that stems from that order. To clarify these details, Article 25(3) provides for a non-exhaustive list of the information to be reflected in the order data. This list contains the following items, which are further developed below:

The identification code of the member or participant which transmitted the order:

24. The purpose of the identification code of the member or participant which transmitted the order to the trading venue is to identify such legal entity with absolute certainty for the purpose of CAs' market surveillance. ESMA further notes that pursuant to Recital 16 of MiFID, the terms "member" and "participant" may be used interchangeably for the purpose of MiFID. Recital 12b also states that "these terms do not include users who only access the trading venues via direct electronic access." It is therefore proposed to follow the same approach in the context of the RTS for Article 25(2) and (3).

25. To the best of ESMA's knowledge, there is no homogeneity in the identification of the member or participant which transmitted the order to the trading venue for execution. Experience shows that in most cases, trading venues require the identification of the originator of the order but that this identification can be made at different levels (*e.g.*, investment firm's level, individual trader's level).
26. It is ESMA's preliminary view that for the member or participant identification code to be efficient, it should satisfy strict conditions:
 - i. it should be unique for each member or participant which means that a member or participant should not therefore appear under two different identifiers (at any point in time), and conversely one identifier should not be shared (at any point in time) by several members or participants;
 - ii. it should be consistent across jurisdictions and investment firms; and
 - iii. it should be persistent and robust over time.
27. It is noteworthy that these conditions have already been identified by ESMA in relation to its work on identification codes to be provided in transaction reports to be transmitted to CAs under Article 26 MiFIR.
28. At this stage, ESMA believes that the LEI code is the most appropriate identifier of the member or participant of the trading platform.

Q581: Do you foresee any difficulties with the proposed approach for the use of LEI?

Elements relating to the identification of relevant parties (other than that of the member or participant):

29. ESMA is considering the possibility of requiring trading venues to keep records of the Client ID, Algo ID and Trader ID codes for the orders submitted by their members or participants.
30. **Trader ID** identification code of the natural person who is responsible for submitting the order to the trading venue; it is proposed to refer to the same trader ID concept as provided for transaction reporting purposes under Article 26 MiFIR (*"the person within the investment firm responsible for execution of the transaction"* and separately *"the person within the investment firm responsible for the investment decision" for the transaction*).
31. **Algorithm ID** Recital 67 MiFID states that "in order to ensure an effective supervision and in order to enable the NCAs to take appropriate measures against defective or rogue algorithmic strategies in due time it is necessary to flag all orders generated by algorithmic trading".
32. Article 48(10) MiFID II also provides that "Member States shall require trading venues to be able to identify, by means of flagging from members or participants, orders generated by algorithmic trading, the different algorithms used for the creation of orders and the relevant persons initiating those orders and that the information shall be available to NCAs upon request".
33. ESMA is proposing to refer to the same algo ID concept as that provided for transaction reporting purposes under Article 26 MiFIR (*"the computer algorithm within the investment firm responsible for the execution of the transaction"* and separately *"the computer algorithm within the investment*

firm responsible for the investment decision” for the transaction) to enable the identification code of the algorithm that places the order into the trading venue.

34. **Client ID** (identification code of the client on behalf, of which the investment firm submits the order).
35. The inclusion of Client ID in order data maintained by trading venues is considered beneficial as it enables supervisors to track order flow for clients from order data requested from trading venues when a suspicion has arisen and to link it with the transactions executed for those clients. For example, it will enable supervisors to identify persons responsible for carrying out ‘layering strategies’ through unexecuted orders as supervisors will be in a position to link those orders with the subsequent transactions executed at a favourable price. This information becomes increasingly important in light of the broadened scope of the market abuse rules which now cover any attempt to engage in market manipulation or insider dealing. Indeed, manipulative activities are carried out through orders. If the client information is not maintained by the trading venues then there will have to be follow up requests to the members/participants of the trading venues for this information. Obtaining the client information from the data from the trading venues will allow CAs to monitor the trading activity without submitting requests to members/participants of the trading venue: thus, this requires a more limited, focused follow up with investment firms and saving resources of not only the CAs but also of the requested firms. Some follow up may nonetheless still be required for confirmation of the client as the client may not be the end client.
36. ESMA is considering using the same designation for Client ID as foreseen in Article 26 MiFIR.
37. However, ESMA acknowledges that the implementation of the client ID has operational implications including implementation costs, the need for a meaningful client code to be maintained by the trading venue, the passing of client information by members/participants to the trading venue and the need to ensure this is passed at the time of the order, the assignment of the relevant client ID to clients’ orders that have been submitted in an aggregated form, whether or not the client
38. ID should be the end-client (final beneficiary) and the case where some members are non EEA.
39. **Technical Intermediary ID:** identification code of the provider (in some cases, this may be an investment firm) that routes the order on behalf of the trading venue member/participant according to trading venue’s rules. This entity provides a technical service to the trading venue member/participant, so for all practical purposes the order is considered to belong to the trading venue member/participant.
40. There are trading venues where members/participants delegate order routing, due to operational reasons and cost efficiency, to technical intermediaries e.g. independent software vendors, investment firms. ESMA considers that the identification of these providers is needed to correctly identify market abuse cases, including front running, and monitor the proper functioning of trading venues.

Q582: Do you foresee any difficulties maintaining records of the Client IDs related with the orders submitted by their members/participants? If so, please elaborate.

Q583: Are there any other solutions you would consider as appropriate to track clients' order flows through member firms/participants of trading venues and to link orders and transactions coming from the same member firm/participant?

The identification code of the order

41. The purpose of this code is to identify each and every single order from its receipt by the trading venue until the expiry of its lifetime notwithstanding any event affecting the order *e.g.* modification, rejection, trading halt, and validity period. In ESMA's view, orders which are received by the trading venue regardless of whether they are rejected or not should nonetheless be assigned an identification code by the trading venue (*e.g.* immediate-or-cancel orders, fill-or-kill orders and rejected orders).
42. In practice, experience shows that in the majority of cases, orders are identified either through a random number (unrelated to the orders' characteristics) or through a sequential number (which is based on the number of orders processed by the trading venue). Moreover, it appears that in some cases, the order identification is combined with additional elements such as the date/ time; order characteristics (*e.g.*, side of the trade, financial instrument's identifier). It further appears that the order identification may be unique across the trading platform, or even across products.
43. As previously mentioned, ESMA believes that for the order identification code to be efficient, it should, like any other code, satisfy the following conditions:
 - i. it should be unique for each order;
 - ii. it should be consistent across all orders processed by the trading venue; and
 - iii. it should be persistent and robust over time.
44. In light of its observations relating to industry's practices, ESMA considers that the above conditions can only be met with certainty on every trading venue if and only if the order code as currently delivered by each and every trading venue is supplemented by at least the following elements: the financial instrument's identifier and the date of receipt by the Trading Venue.
45. Hence, ESMA's proposal is therefore that the order identification code consists of:
 - i. the denomination of the trading venue (*i.e.*, MIC code, *e.g.*, XPAR for Nyse-Euronext Paris);
 - ii. the financial instrument's identification code, *i.e.* ISIN or Aii product code as appropriate;
 - iii. the date of receipt by the trading venue; and
 - iv. the alphanumerical code established for each and every order book of the trading venue.

Q584: Do you believe that this approach allows the order to be uniquely identified If not, please elaborate

Q585: Do you foresee any difficulties with the implementation of this approach? Please elaborate

The date and time

46. The date and time (*i.e.*, time stamp) aims at specifying the exact date and time on which an event affecting the order occurs (*e.g.*, modification, cancellation, removal, rejection, execution, etc.), including the date and time at which the order was transmitted. ESMA interprets the date and time the order was transmitted to mean the date and time the trading venue received the order. A time stamp also allows the end of validity of the order to be defined (*i.e.* the ultimate date and time at which the order will expire and be automatically removed from the order book by market operations).
47. In the context of transaction reports under current MiFID (and Article 26 MiFIR), the format of both the date and time has already been defined in a harmonised way.
48. However, with regard to time presentation, ESMA believes that further time granularity may be required considering that experience shows that the number of orders received by a trading venue can be very high and in any event, much higher than that of executed transactions, so that for each and every second, a trading venue may receive many orders (up to several thousands of orders per second depending on the trading venue and on financial instruments' volatility and liquidity). As a result, a time granularity of one second is not sufficient and relevant to allow CAs to perform their market surveillance duty in particular as regards market manipulation. If the order data is not granular enough CAs will not be in a position to conduct effective cross-product and cross-trading venue monitoring.
49. ESMA's preliminary view is that order submission like every order modification, cancellation or execution time (or any other event that needs to be time stamped) should be as accurate as the micro-second.
50. In line with the approach taken for the transaction reporting requirements and for the synchronisation of business clocks, ESMA envisages that the date and time of the order should be maintained in UTC (Coordinated Universal Time).
51. ESMA considers that for the purpose of CAs' monitoring and surveillance duties under MiFIR, it is key that they also know the particular time frame of a trading venue as compared to other trading venues, so as to coordinate the clocks for the purpose of monitoring and analysis. This can be very important for conducting cross-venue monitoring and evaluating arbitrage strategies by some HFT firms for example. The final decision on the granularity of the time will also have to take into account the standards stemming from the empowerment under Article 50(2) MiFID II.

Q586: Do you foresee any difficulties with the proposed approach? Please elaborate

Sequence number

52. The purpose of a sequence number is to allow the NCA to be able to identify the true sequence of events as they were processed by the trading venue per financial instrument. This is of particular relevance when two or more events have exactly the same time stamp.

53. ESMA considers that the sequence number should be reset at the end of each trading day.
54. The sequence number may be used by a trading venue across multiple financial instruments, or per single financial instrument, per trading day and therefore the sequence number may increase by more than 1 on any given instrument but the sequence would be in an ascending order²²³.

Q587: Do you foresee any difficulties with the proposed approach? Please elaborate.

The characteristics of the order specified in Article 25(3)

Type of the order

55. The type of an order aims at defining how the member or participant who submits an order wants the order to be handled by the trading venue's matching engine, that-is-to-say how the order is expected to be traded throughout its lifetime in the trading venue's order-book.
56. In practice, EEA trading venues offer various types of orders. To ESMA's best knowledge, about 30 different order types are currently being utilised throughout the EEA. Among all these order types, some are commonly available at most venues (e.g., Limit order, Market order, Stop order, Iceberg order), whereas others are specific to a few trading venue (e.g., Strike Match orders). It is noteworthy that one order type may be called different names depending on the trading venues. Also, in a few instances, order types consist of a general order type to which a flag is attached (e.g., Retail orders, Inventory and Indicative quotes).
57. ESMA's preliminary view is that RTS cannot detail in an exhaustive manner all existing order types as new order types can always be designed and released by trading venue operators. Moreover, the purpose of the RTS is to provide the NCAs with reliable and relevant data and tools to monitor the order activity of the financial instruments falling within their supervision remit. Notwithstanding the various order types that are available in EEA trading venues, every order's state can be characterized by a price/limit and quantity (both visible and hidden) at which it is tradable (or is triggered) and the priority it is given. In fact, these characteristics are at all times recorded and computed in the trading venues' matching engines.
58. For the purpose of the RTS, ESMA is considering whether it would be useful addressing the variety of order types by identifying two basic order types (referred to hereafter as the "fundamental order types") that would provide an immediate indication to CAs of the order's current state. Therefore, complex orders' behaviour (their successive states within the order book) could be replicated on the basis of these "fundamental order types". For the purpose of ESMA's proposal, the characteristics (such as the limit price, size, visibility and priority) of the fundamental order types would have to be updated wherever market operations require it.
59. At this stage, ESMA is considering two fundamental order types to indicate the current state of every order:

²²³ For example, a trading venue with two financial instruments may apply a sequence number that increases by one for each event regardless of the financial instrument it occurs in, so two events in instrument A would be given a sequence number of 1 and 2 followed by an event in instrument B (sequence number 3) and then an event in financial instrument A would receive a sequence number of 4. Therefore the data for financial instrument A has sequence numbers of 1,2 and 4.

- i. 1: Limit Order²²⁴; and
 - ii. 2: Stop Order.
60. ESMA further considers that wherever an order's current state is modified, a flag would have to be maintained to indicate the reason for such modification (*i.e.*, upon the initiative of the member or participant who sent the order, market operations; notably when replicating complex orders' different states).
61. It is proposed that the exact type of the order that has been actually entered is maintained by the trading venue and coded at its discretion (see "*Initial type of order*" in Specific order instructions, so that CAs may have a better comprehension of the behaviour of any order if and when needed. Further information could still be requested from trading venues where a CA detects inconsistencies).
62. The two following examples aim at illustrating the above proposal:

Example 1: case of an Iceberg Order

An iceberg order is entered by a member or participant with an initial quantity of 1,000 and a visible quantity of 200. Under the proposed approach, this order would be modelled by the trading venue as a limit order where the displayed quantity is initially set at 200, the hidden quantity at 800 and the remaining quantity at 1,000. When the first 200 shares are filled (event "partially filled"), the iceberg order is then modelled as a limit order with a displayed quantity of 200 and a hidden quantity of 600. The remaining quantity would be 800 and the initial quantity would still be 1,000.

Example 2: case of a Peg Order

A peg order would be modelled by the trading venue as a limit order the limit of which tracks the best bid offer potentially with a time lag.

63. As well as allowing appropriate monitoring of the markets by CAs, this proposal would have the following benefits:
- i. it would allow trading venues to keep their current internal representation of orders;
 - ii. this approach would not prevent trading venues from designing new commercial solutions for their clients and therefore would not be an impediment to financial innovation; and
 - iii. it would allow simplification of the order type landscape and contribute to enhancing market monitoring by CAS.

**Q588: Would the breakdown in the two categories of order types create major issues in terms of mapping of the orders by the Trading Venues and IT developments?
Please elaborate**

Limit price / Stop Price / Pegged Limit Price

²²⁴ The Limit Order type would cover market orders for which the validity period could be flagged as "immediate".

64. The purpose of this limit / stop price / pegged limit field is to specify the price at which an order can be traded (and therefore executed) or triggered or triggered and halted (in case of stop orders²²⁵). It is proposed that trading venues maintain market orders that have no predetermined limit price with a limit price equal to 0 (zero) and that where trading venues automatically assign a limit to market orders, then this limit should be maintained.
65. Where a stop order is triggered by events independent of the price of the underlying instrument (e.g. triggering is related to the change in price of another financial instrument), then, it is proposed that the trading venue maintain the price at 0 (zero).
66. Pegged orders will have a price reflecting the peg e.g. mid-price. They may also have a limit such that if the pegged order were to exceed that price the order would be treated as a limit order at that price until the situation reverted in which case it would revert back to a pegged order. In light of current practices by trading venues in the EEA, the accuracy of limit prices may be different from one venue to the other depending notably on the instrument type (e.g., equity, bond), liquidity and price of the financial instruments concerned. The price should be kept at the same granularity already maintained by the Trading Venue.

Q589: Do you foresee any problems with the proposed approach?

Validity period

67. This specification aims at defining the maximum lifetime of an order, e.g., good for day (valid for the whole trading day on which it is entered into the order book).
68. To the best of ESMA’s knowledge, it appears that the majority of trading venues allow orders to remain on their order book for more than one trading day (persistent orders).
69. In order to encompass all possible validity periods, ESMA would like to propose that the validity period of an order be reflected via the following possible indications:

Validity period	Description
Good-For-Day	When the order expires at the end of the trading day on which it was entered in the order book.
Good-Till-Cancelled	The order will remain active in the order book and be executable until it is actually cancelled either by the member or participant who submitted it initially, or by the trading venue operator (pursuant to its market rulebook).
Good-Till-Time	When the order expires at the latest at a pre-determined time, set by the member or participant who submitted the order, within the current trading session.
Good-Till-Date	When the order expires at the end of the date specified by the member or participant who submitted it.

²²⁵ Most of the time, the stop price that triggers the order corresponds to the last trade price the financial instrument has reached. In some trading venue, the stop price may refer to the bid or ask price; it is not planned to specify these very particular cases.

Good-Til-Specified Date and Time	When the order expires at the date and time specified by the member or participant who submitted it.
Valid For Auction	This means that the order is only active and can be executed only at auction phases (which can be pre-defined by the member or participant who submitted the order <i>e.g.</i> , opening and/or closing auctions and/or intraday auction).
Valid for Continuous Trading only	When the order is only active during continuous trading.
Immediate-Or-Cancel	This refers to an order which is executed upon its entering into the order book (for the quantity that can be executed) and which does not remain in the order book for the remaining quantity (if any) that has not been executed.
Fill-Or-Kill	This refers to an order which is executed upon its entering into the order book provided that it can be fully filled: in the event the order can only be partially executed, then it is automatically rejected and cannot therefore be executed.

70. In order to define an order’s maximum lifetime even more accurately and precisely, ESMA considers it appropriate to supplement the above indications with the date and time at which the order shall automatically and ultimately be removed from the order book. For instance, in the case of an order defined as “end of the day” or “until date”, then a standardised default time could be used across trading platforms of “23:59:59.999999”. For an immediate order (e.g. Fill-Or-Kill or Immediate-Or-Cancel), a default time of “00:00:00.000000” could be used.

Q590: Are the proposed validity periods relevant and complete? Should additional validity period(s) be provided? Please elaborate.

Q591: Do you agree that standardised default time stamps regarding the date and time at which the order shall automatically and ultimately be removed from the order book relevantly supplements the validity period flags?

Priority of orders

71. This information aims at reflecting the priority of an order during its lifetime in the order book compared to that of all other orders in the order book.
72. ESMA proposes that priority of orders should be maintained by trading venues as increasing integers (e.g., 1, 2, and 3) instead of time stamps, which may sometimes not be sufficiently accurate. For instance:
- i. when the change of priority of an order is due to an external event, causing the priority change to have exactly the same time stamp as that of the event (*e.g.* when a displayed order reaches the order book, two or more hidden orders lose their time priority to the benefit of the displayed order: in this case, the priority time stamp of the hidden orders will be the same);

- ii. to distinguish between order modifications that have an impact on the order priority and those that do not have any impact.
73. At this stage, ESMA is considering the following three options:
- i. to set the priority number for each and every limit price; or
 - ii. to set the priority number for the whole order book.; or
 - iii. to set the priority number per side of the order book.
74. As a result, the priority number would not need to be reset intraday; indeed, to replay the order book, CAs would only have to sort orders for a given limit according to their priority and determine the order which has the “smallest priority number” for this limit.
75. Experience shows that in most trading venues, a new order has the least priority whereas an order that is modified either keeps its priority or loses it (thus, having the least priority). However, it is noteworthy that in few trading venues (usually those being less liquid), the order priority may be driven by the size of the order (*e.g.*, a new incoming order whose size is bigger than orders which have been previously entered into the order book, will have a higher priority, which requires that the order priority may have to be reset intraday).
76. ESMA’s above proposal will have the merit of addressing all possible market-models of trading venues while remaining simple to implement by trading venues and to process by CAs.

Q592: Do venues use a priority number to determine execution priority or a combination of priority time stamp and sequence number?

Q593: Do you foresee any difficulties with the three options described above? Please elaborate.

Specific order instructions

In ESMA’s view, these data aim at ensuring that CAs have access to relevant elements that adequately supplement those explicitly provided under Articles 25 and 26 MiFIR for the purpose of their market surveillance.

At this stage, ESMA has identified a few characteristics that would need to be reflected in each and every order received by the trading venue to allow a useful and relevant description of how it should be handled by the said trading venue. More specifically, ESMA believes that the following elements would be both sufficient and relevant to characterise any order if kept at CAs’ disposal along with the two basic order types mentioned above (1: Limit; 2: Stop).

Characteristic	Description
Buy / Sell indicator	To show if the order is to buy or sell.

Identification code of the instrument	It is proposed to use the ISIN or Alternative Instrument Identifier (AII) code ²²⁶ where relevant.
Instrument classification	To be determined under RTS stemming from MiFIR article 27.
Order status	To identify orders that are active/inactive/suspended, firm/indicative ²²⁷ (assigned to quotes only).
Initial quantity	The number of units of the financial instrument included in the order <i>e.g.</i> , precise number of shares, or lots if the instrument is tradable by lot.
Remaining / outstanding quantity including hidden	The total quantity that remains in the order book after a partial execution or any other event affecting the order.
Displayed quantity	The quantity that is visible (as opposed to hidden) in the order book.
Hidden quantity	The quantity that is hidden (as opposed to visible) in the order book, for example in the case of iceberg orders.
Traded quantity	This quantity is incremented by the number of shares that has been traded at the last execution when an execution, whether partial or full, occurs.; this quantity is maintained as zero by the trading venue when the order is entered and should be equal to the initial quantity when the order is totally executed (provided the initial quantity has not been modified by the member) ²²⁸ .
Initial type of order	Even though it is being proposed that trading venues replicate the behaviour (states) of the orders they handle, it is useful for CAs to know the exact type of the order when initially entered by the member (i.e. iceberg order, stop-limit, market-to limit, peg, etc.).
Minimum Acceptable Quantity (MAQ)	This is the minimum acceptable quantity for an order to be filled which can consist of multiple partial executions and is normally only for non-persistent order types.
Minimum executable size (MES)	This is the minimum execution size of any individual potential execution. It should also specify whether the MES is relevant for the first execution only or the lifetime of the order.
Date and time of any	See relevant paragraphs in the section “Relevant data constituting

²²⁶ Consisting of the following six elements:

Aii exchange code: this is the MIC of the trading venue that admits the derivative to trading

Exchange product code : the code assigned and maintained by the trading venue where the derivative is traded

Derivative type: identifies whether the derivative is a put or call option

Expiry date of the derivative

Strike price: identifies the strike price of an option

²²⁷ Indicative quotes mean that they are visible but cannot be executed (*e.g.* warrants in some trading venues).

²²⁸ Summing Remaining / outstanding quantity including hidden and traded quantity does not necessarily equal the Initial quantity. For instance, where the size of the order is modified after a partial execution, the initial quantity and the remaining/outstanding quantity are re-set while traded quantity is not.

event affecting the order	the characteristics of the order, including those that link an order with the executed transactions”, sub-section on the date and time
Modification number	In order to count and sequence the different modifications affecting a single order.
Currency	The trading currency of the order.
Passive only indicator	Indicates if the order is only to enter the order book if it would not result in an execution with any visible volume.
Self-Execution Prevention	Indicates if the order has been entered with self-execution prevention criteria so that it would not execute with an order on the opposite side of the book entered by the same member or participant.
Passive or Aggressive indicator	Indicates whether the order entered onto the order book and therefore provided liquidity or whether the order event resulted in an execution and thus was taking liquidity.
Date and time of expiry	Date and time at which the order is automatically and ultimately removed from the order book by market operations; depending on the flag “validity period”, the time stamp may automatically be filled by market operations (<i>e.g.</i> if the order is flagged as “Good-for-day”); in case the order’s expiry is defined as “end of the day”, it is proposed that the time is normalised and set at “23:59:59.999999”.

Q594: Is the list of specific order instructions provided above relevant? Should this list be supplemented? Please elaborate.

Details of any new order, order modification, order cancellation and partial or full execution of the order

77. This data relates to the main categories of events that can affect an order that-is-to-say, receipt of the order, modification, cancellation (including expiry) and execution. The use of the terms “details” to reflect these categories of events implies that the identification of the said categories have at minima to be descriptive. For the purpose of illustration, the modification category includes many events such as replacement, triggered and status changes. Hence, ESMA’s preliminary view is that it would be useful for both the trading venues and the CAs if the RTS detailed the events that may be commonly found within each of the categories expressly mentioned in Article 25(3). It should be stressed that the events that could be detailed in the RTS should not purport to be exhaustive.

78. At this stage, ESMA proposes to detail the various events as follows:

- i. Within the new category:

Category	Description
----------	-------------

New	Receipt of a new order by the trading venue.
Rejected	An order that was received by the trading venue but rejected by that trading venue.

ii. Within the modification category:

Category	Description
Triggered	Where an order becomes executable / non-executable upon the realisation of a pre-determined condition.
Replaced by the Member/Participant	Where a Member/ Participant decides upon its own initiative to change any characteristic(s) of the order it has previously entered into the order book.
Replaced by market operations (automatic)	Where any characteristic(s) of an order is changed by the trading venue operator's IT systems. e.g., when a peg order's or a trailing stop order's current characteristics are changed to reflect how the order is located within the order book.
Replaced by market operations (human intervention)	Where any characteristic(s) of an order is changed by a trading venue operator's staff e.g., in case a member has IT issues and needs its orders to be cancelled urgently.
Change of status at the initiative of the Member/Participant	<i>e.g.</i> activation, deactivation.
Change of status due to market operations	<i>e.g.</i> suspension.

iii. Within the execution category:

Category	Description
Partially filled	Where the order is not fully executed so that there remains a quantity to be executed.
Filled	Where there is no more quantity to be executed.

iv. Within the cancellation category:

Category	Description
Cancelled at the initiative of the Member/Participant	Where a Member/Participant decides upon its own initiative to cancel the order it has previously entered.
Cancelled by market operations	<i>E.g.</i> market maker's protection mechanism.
Expired	<i>E.g.</i> end of validity period events.

Q595: Are there any other type of events that should be considered?

The agency or principal capacity

79. The purpose of this data is to specify orders that are entered into the order book by the trading venue member or participant on its own account either on its own behalf or on behalf of a client (principal trading capacity, P) or on behalf of a client (agency trading capacity A).

Q596: Do you foresee any difficulties with the proposed approach? Please elaborate.

The liquidity provision activity

80. Whereas market maker is a concept defined in article 4 of MiFID II, the definition of liquidity provider on behalf of a client is not included as such in MiFID II/MiFiR but it is a service provided in some countries where the CAs have approved accepted market practices whose main objective is to provide liquidity to the market. ESMA has knowledge that this piece of information is already being collected by some markets and considers that it would not be difficult to implement for the rest of the trading venues.

81. Therefore ESMA is considering requesting that orders placed either by market makers or by other liquidity providers should be flagged. This flagging in combination with the information provided by the agency or principal capacity flagging will give an indicator regarding whether the order was submitted by a market maker (principal trading capacity and market maker flags in this case) or by a liquidity provider on behalf of an issuer (agency trading capacity and liquidity provider flags in this case). In other cases (*i.e.*, where the order is not related to liquidity provision activities), no such flags shall be used and the related fields shall be blank.

Q597: Do you foresee any problems with the proposed approach? Do you consider any other alternative in order to inform about orders placed by market makers and other liquidity providers?

Reference to the transaction(s) following the order in case of execution

82. ESMA's mandate includes details of relevant order data that link an order with the executed transactions. In ESMA's preliminary view, the most appropriate way to link orders and transactions would be for trading venues to maintain a transaction identification number for each execution, whether full or partial.

83. As previously mentioned, ESMA believes that for the "transaction identification code" generated by the trading venue to be efficient, it should, like any other code, satisfy the following conditions:

- i. it should be unique for each transaction;
- ii. it should be consistent across all orders processed by the trading venue and transactions; and
- iii. it should be persistent and robust in time.

Q598: Do you foresee any difficulties in generating a transaction ID code that links the order with the executed transaction that stems from that order in the information that has to be kept at the disposal of the CAs? Please elaborate.

Elements relating to the functioning of the order book

84. ESMA is considering requiring trading venues to maintain data elements on the functioning of the order book, that are not specifically related to the characteristics of the order but determine how the order interacts within the order book. This potentially would include maintaining records of when trading phases start and finish on the trading venue. This information would be useful to identify when unscheduled trading phases begin e.g. a circuit breaker auction call period. There is also consideration around maintaining the indicative prices and volumes during auction call periods (*i.e.*, the price and volume that would execute at that moment in time of the auction). This information would be useful to determine the impact of individual orders on the order book.

Q599: Do you foresee any difficulties with maintaining this information? Please elaborate.

8.4. Requirement to maintain records of orders for firms engaging in high-frequency algorithmic trading techniques (Art. 17(7) of MIFID II)²²⁹

Background/Mandate/Empowerment

1. Article 17(7) of MiFID II requires ESMA to develop technical standards in relation to the requirement to maintain records of orders for firms engaging in high-frequency trading strategies:

Article 17(7), MiFID II

ESMA shall develop draft regulatory technical standards to specify the following:

(d) The content and format of the approved form referred to in the fifth subparagraph of paragraph 2 and the length of time for which such records must be kept by the investment firm.

2. Article 17 of MIFID II imposes specific and additional requirements on investment firms that engage in algorithmic trading; in particular those investment firms have to ensure that their trading systems are resilient and have sufficient capacity and do not create or contribute to disorder on the market. Also, they have to ensure to have in place effective systems and risk controls to ensure the trading systems cannot be used for abusive purposes.
3. To ensure compliance with the above requirements, Article 17(2) enables NCAs to require, on a regular or ad-hoc basis, a description of the nature of its algorithmic trading strategies, details of the trading parameters or limits to which the system is subject, the key compliance and risk controls that it has in place and details of the testing of its systems. Additionally, NCAs may, at any time, request further information from an investment firm about its algorithmic trading and the systems used for that trading. It is further highlighted that investment firms engaged in algorithmic trading are required to arrange for records to be kept in relation to the information referred to in Article 17(2). The details pertaining to the organisational requirements provided under Article 17(2) must be specified by ESMA according to 17 (7) (d) of MiFID II.
4. Many investment firms make use of algorithmic trading where a computer algorithm automatically determines aspects of an order with minimal or no human intervention. A specific subset of algorithmic trading is high frequency algorithmic trading where a trading system analyses data or signals from the market at high speed and then sends or updates large numbers of orders within a very short time period in response to that analysis. For firms engaging in this specific trading technique, Art 17(2) introduces a specific requirement “*to store in an approved form accurate and time sequenced records of all its placed orders, including cancellations of orders, executed orders and quotations on trading venues and shall make them available to the competent authority upon request*²³⁰”.

²²⁹ Please note that this section has to be read in conjunction with the section on the “Record keeping and co-operation with national competent authorities” in this DP.

²³⁰ Art. 17(2.a) *An investment firm that engages in a high frequency algorithmic trading technique shall store in an approved form accurate and time sequenced records of all its placed orders, including cancellations of orders, executed orders and quotations on trading venues and shall make them available to the competent authority upon request.*

5. This Discussion Paper deals with the obligation of investment firms engaged in a high frequency algorithmic trading technique to maintain such records of placed orders. In particular, ESMA is empowered to develop draft RTS to specify the content and format of the approved form referred to above, as well as the length of time for which such records must be kept by the investment firms (Art. 17(7)(d) of MiFID II).
6. Article 25(1) of MiFIR imposes a general requirement on all investment firms to maintain records of the relevant data relating to all orders and transactions in financial instruments which they have carried out whether on own account or on behalf of a client. Investment firms must keep the said data at the disposal of the national competent authority (NCA) for five years²³¹.
7. In addition to the general record-keeping requirements provided under Article 25 of MiFIR, Article 17 of MiFID II dictates a set of supplementary requirements applicable to investment firms using algorithmic trading. Regarding specifically investment firms engaged in a high frequency algorithmic trading technique, Art. 17(7)(d) mandates ESMA to develop draft RTS to specify:
 - i. the content and format of the approved form of accurate and time sequenced records of all placed orders, including cancellations of orders, executed orders and quotations on trading venues;
 - ii. the length of time for which such records must be kept by the investment firm.
8. In light of the above, ESMA has started working on the empowerment of Article 17 (7)(d). ESMA will use best endeavours to ensure that the content and format required under this article and length of time that records need to be kept are consistent with those required under Article 25(2) and 25(3) and Article 26 MiFIR, where appropriate. The aim of this is to facilitate the processing of the information by CAs while avoiding an unnecessary burden on market participants.

The content and format of records of placed orders to be stored

9. As previously mentioned, ESMA's mandate under Article 17 (7)(d) MiFID II is two-fold: (i) to specify the content and format of records of placed orders by investment firms engaged in a high frequency algorithmic trading technique and (ii) to specify the length of time for which such investment firms shall maintain the records.

Content and format of records of placed orders

10. In ESMA's view, the record-keeping obligations upon investment firms engaged in a high frequency algorithmic trading technique as provided under Article 17(2) of MiFID II supplement those found in Article 25(1) of MiFIR. Indeed, in terms of scope, Article 25(1) of MiFIR requires all investment firms to maintain records of the relevant data relating to all orders and transactions, whereas Article 17(2) of MiFID II specifically relates to orders that are placed by investment firms engaged in a high frequency algorithmic trading technique. Moreover, in contrast to Article 25(1) of MiFIR, Article 17(2) &

²³¹ Art. 22(1) states that: "Investment firms shall keep at the disposal of the competent authority, for 5 years, the relevant data relating to **all orders and** all transactions in financial instruments which they have carried out, whether on own account or on behalf of a client. In the case of transactions carried out on behalf of clients, the records shall contain all the information and details of the identity of the client, and the information required under Directive 2005/60/EC. ESMA may request access to that information in accordance with the procedure and under the conditions set out in Article 35 of Regulation (EU) No 1095/2010."

(7)(d) of MiFID II further provides for RTS to specify the content and format of the records of placed orders.

11. Therefore, and according to MIFID II Articles 16.6 and 7, records to be kept by investment firms should be sufficient to enable the NCA to fulfil its supervisory tasks under MIFIR, MAD and MAR. ESMA, relying on current Regulation (EC) No 1287/2006 deems that the records should encompass at least the following details:
 - i. name and designation of the client;
 - ii. name and designation of any relevant person acting on behalf of the client;
 - iii. B/S indicator;
 - iv. instrument identification;
 - v. unit price and price notation;
 - vi. quantity and quantity notation;
 - vii. nature of the order;
 - viii. type of the order;
 - ix. any other details, conditions and particular instructions from the client;
 - x. any other details and conditions required by trading venues; and
 - xi. the date and exact time of the receipt of the order or decision to deal.
12. Hence, it is ESMA's preliminary view that the records of placed orders to be stored under Article 17(2) MiFID II should consist of information that is inherent to orders placed by investment firms engaging in a high frequency algorithmic trading technique.
13. ESMA considers the additional information contemplated by Article 17 MiFID II in a way that grants independent substance besides the general order data record-keeping obligations pursuant to Article 25(1) MiFIR that each and every investment firm (irrespective of the trading technique it uses) has to comply with at a minimum. Consequently, information and data that need to be stored by investment firms that engage in a high frequency algorithmic trading technique should specifically comprise all elements which are necessary to understand and monitor these firms' trading activity.
14. At this stage and in light of NCAs' experiences and of investment firms' practices, ESMA considers that the information that would usefully serve the record-keeping purposes of Article 17(2) MiFID II would notably consist of the following:
 - i. each placed order's internal timestamp (based on the investment firm's business clock) and each placed order's timestamp by the trading venue, with both timestamps having a format that provides granularity of a nanosecond;

- ii. each placed order's sequences in order to reflect the chronology of order submissions and also the chronology of events affecting placed orders;
- iii. each placed order's unique internal identifier as from the order's submission to the trading venue until its leaving the order-book and each placed order's identifier as provided by the trading venue;

Q600: Do you foresee any difficulties with the elements of data to be stored proposed in the above paragraph? If so, please elaborate.

Length of time for which records must be kept

- 15. ESMA considers that an investment firm that engages in a high frequency algorithmic trading technique should keep records for a length of time of five years as for all investment firms under art. 25(1) MiFIR.

Q601: Do you foresee any difficulties in complying with the proposed timeframe?

8.5. Synchronisation of business clocks

Background/Mandate/Empowerment

1. Article 50(1) of MiFID II requires Member States to oblige all trading venues and those accessing the venues to trade to synchronise the business clocks they use to record the date and time of any reportable event.

Article 50(2), MiFID II

ESMA shall develop draft regulatory technical standards specifying the level of accuracy to which clocks are to be synchronised in accordance with international standards.

Analysis

2. Recording of date and time (i.e. timestamping) is needed to define the exact moment when an event occurs (e.g. execution, modification, cancellation, maturity, early termination, pre- or post-trade publication, etc.).
3. Article 50 of MiFID II refers to the obligation of trading venues and their members/participants to record using an accurate time source the date and time of any “reportable event”. Given that this concept is not defined elsewhere, ESMA considers relevant to provide examples of “reportable events” for the purposes of Article 50.
4. ESMA’s preliminary view is that this concept encompasses not only the data to be reported under Article 26 of MiFIR to regulators to perform their monitoring and surveillance duties under Article 24 of MiFIR and the continuous data feed to be published under the post-trade transparency requirements (Articles 6, 7, 10, 11, 20 and 21 of MiFIR) but also the data to be kept at the disposal of the NCAs by trading venues and investment firms under Articles 25 of MiFIR and Article 17(2) of MiFID.
5. In that context, ESMA considers that clock synchronisation shall effectively improve each of the areas described above: for example, clock synchronisation is essential for conducting cross-venue monitoring and detecting instances of market abuse and will also contribute to ensuring that post-trade transparency data can readily be part of a reliable consolidated tape. In that regard, clock synchronisation should be taken into account by data reporting services (APAs, ARMs and CTPs). Clock synchronisation will be beneficial, furthermore, for assessing best execution since it will allow to better compare effective transactions to market conditions prevailing at the time of their execution.
6. In particular, it has to be noted that clock synchronisation has a direct impact in many areas: for instance, MiFIR Article 26 introduces specific requirements to harmonise the format and standard of timestamps in transaction reports. Article 65 MiFID II also includes the mandate to specify the means to ensure that the data published by the different CTPs is consistent and allows for comprehensive mapping and cross-referencing against similar data from other sources, and is capable of being aggregated at Union level.

7. IOSCO's report on Technological Challenges to Effective Market Surveillance Issues and Regulatory Tools²³² describes not only the increasing need for clock synchronisation in highly fragmented and automated markets but also the practical challenges that such synchronisation would entail.
8. ESMA's preliminary view is that each trading venue and market participant mentioned above should rely on an atomic clock to issue timestamps. The same set of references and standards should be used by all market participants and trading venues to synchronise their clocks so as to allow comparison between their timestamps. In that regard, two different options can be envisaged:
 - i. synchronisation could occur with the closest timing centres maintaining a local approximation of UTC (as known as UTC (k), where k is the designation of that centre). The relevant timing centres are listed in the annual report of the BIPM²³³. A specific protocol for synchronising the participant clock with the reference clock could be chosen, such as the Precision Time Protocol (PTP). Views of market participants in this regard are welcome; and
 - ii. synchronisation could also be based on a single reference signal through GPS, which would allow for a very fine (by some tens of nanoseconds) and practical coordination (accessible for everyone). There are arguments against using GPS, though: the main one is that GPS and UTC times don't coincide (GPS time is currently ahead of UTC by 16 seconds because leap seconds are introduced in UTC time to take account of an offset linked to earth rotation). This argument disappears if we consider adjusting GPS time by a correction factor (official difference between GPS time and UTC time) to avoid changing current industry practices based on UTC. In fact, an internal fact-finding exercise undertaken by ESMA indicated that the majority of trading venues are already coordinated with GPS time. It can also be argued that the deployment of these systems might be costly and technically challenging (GPS satellites use radio-frequency that needs antennae to be mounted on roofs with a clear view of the sky).
9. Granularity of the internal clocks: Experience shows that, for example, the number of orders received by a trading venue can be very high and in any event, much higher than that of executed transactions, so that for each and every second, a trading venue may receive many orders (up to several thousands of orders per second depending on the trading venue and on the financial instruments' volatility and liquidity). As a result, a time granularity of one second would not be either sufficient or relevant for the purpose of market surveillance, in particular with respect to market manipulation. However, ESMA is also conscious that there are trading models for which such accuracy might not be operational.
10. In any case, the rapid evolution of the markets has led to a situation where in most cases, time stamping at accuracy lesser than one microsecond is not practical.
11. Therefore, ESMA envisages an approach where all timestamps should be labelled at least in microseconds.
12. Trading venues and market participants should ensure that their clocks and the clock used as common reference do not diverge beyond certain limits.

²³² <http://www.iosco.org/library/pubdocs/pdf/IOSCOPD412.pdf>

²³³ see : http://www.bipm.org/utls/en/pdf/time_ann_rep/Time_annual_report_2012.pdf

- i. In principle, ESMA is considering that the internal clock of venues and market participants cannot diverge more than 1 microsecond with respect to the reference clock. ESMA would like to receive the views of market participants on this proposal.
- ii. In connection with the previous point, trading venues and the aforementioned market participants should periodically check the accuracy of their time stamp against the reference clock to correct any potential inaccuracies.
- iii. ESMA envisages that these periodic checks should be made out of market hours in a coordinated manner. ESMA would like to get the views of market participants on this as there are different risks that may arise: on the one hand, non-coordinated synchronisation would avoid discrepancies deriving from a situation where, for example, some trading venues update their clocks at noon whereas others update their clocks at 5:00 AM, leading to potential discrepancies amongst themselves. On the other hand, in cases where systems other than GPS are used, synchronisation of too many market participants at the same time might create bottlenecks leading to latency issues.

Proposal

13. ESMA considers as examples of “reportable event” at least the following obligations:
 - i. publication of post-trade transparency data for equity, equity-like and non-equity instruments, as prescribed by Articles 6, 7, 10, 11, 20 and 21 of MiFIR;
 - ii. transaction reporting under Article 26 MiFIR;
 - iii. data related to orders placed or submitted that might be requested by NCAs to investment firms (Article 25(1) MiFIR) that is particularly qualified for firms using high frequency algorithmic trading techniques (Article 17(2) in fine MiFID II); and
 - iv. data related to orders placed or submitted that might be requested by NCAs to trading venues under Article 25(2) MiFIR.
14. ESMA’s preliminary view is that the measures specifying the level of accuracy to which clocks are to be synchronised should consist of at least the following elements:
 - i. requirement to synchronise to a common time source: ESMA requests the views of market participants about using a common reference clock for these purposes;
 - ii. requirement to have internal clocks able to reach a certain time granularity: ESMA’s preliminary view is that these entities to have business clocks accurate at least up to the microsecond level;
 - iii. in principle, one microsecond should be the maximum divergence permitted with respect to the reference atomic clock;
 - iv. ESMA requests the views of market participants about timing and frequency of the synchronisation with the reference clock for each type of entity.

Q602: Would you prefer a synchronisation at a national or at a pan-European level? Please elaborate. If you would prefer synchronisation to a single source, please indicate which would be the reference clock for those purposes.

Q603: Do you agree with the requirement to synchronise clocks to the microsecond level?

Q604: Which would be the maximum divergence that should be permitted with respect to the reference clock? How often should any divergence be corrected?

9. Post-trading issues

9.1. Obligation to clear derivatives traded on regulated markets and timing of acceptance for clearing (STP)

Background/Mandate/Empowerment

1. MiFIR extends the scope of the clearing obligation to all derivative transactions concluded on a regulated market and requires clearing members (CM) to ensure that derivatives are submitted for clearing acceptance as quickly as technologically practicable.
2. The timely transfer of derivative transaction for CCP acceptance was already raised by stakeholders in the scope of the EMIR consultation. However, this topic was not in the scope of the mandate given to ESMA in the Regulation and therefore no related RTS were developed. A mandate is now granted to ESMA for this purpose and is analysed in this Discussion Paper.
3. ESMA is required to draft technical standards to specify the minimum requirements for systems, procedures and arrangements taking into account the need to ensure proper management of operational or other risks, and would have on-going authority to update these requirements as industry standards evolve.

Article 29, MiFIR

1. The operator of a regulated market shall ensure that all transactions in derivatives that are concluded on that regulated market are cleared by a CCP.

2. CCPs trading venues and investment firms which act as clearing members in accordance with Article 2(14) of Regulation (EU) No 648/2012 shall have in place effective systems, procedures and arrangements in relation to cleared derivatives to ensure that transactions in cleared derivatives are submitted and accepted for clearing as quickly as technologically practicable using automated systems.

In this paragraph, “cleared derivatives” means:

(i) all derivatives which are to be cleared pursuant to the clearing obligation under paragraph 1 of this Article or pursuant to the clearing obligation under Article 4 of Regulation (EU) No 648/2012;

(ii) all derivatives which are otherwise agreed by the relevant parties to be cleared.

3. ESMA shall develop draft regulatory technical standards to specify the minimum requirements for systems, procedures and arrangements (including the acceptance timeframes) under this Article taking into account the need to ensure proper management of operational or other risks, and shall have ongoing authority to update those requirements as industry standards evolve.

4. The technical standards would apply to CCPs, trading venues and investment firms that act as CMs (relevant parties) and would apply to all derivatives to be cleared, both OTC and ETD and whether or not subject to the clearing obligation. It is therefore important to analyse the role of these relevant parties and the flow of information they transfer in order to determine the appropriate systems, procedures and arrangements necessary to address risks for derivatives.

5. When specifying the relevant framework, ESMA needs to take into account the necessity for the relevant parties to ensure appropriate management of risks and in particular of operational risks. For this purpose, it is important to analyse the risk framework of those parties involved in the clearing process of derivatives.

Analysis

Role of the relevant parties in the clearing of derivative transactions

6. Derivative transactions that are to be cleared, on a voluntary basis or pursuant to the clearing obligation, will have to ultimately be communicated to the CCP in order for the CCP to assess whether the conditions for acceptance are fulfilled. Depending on the manner to conclude the derivative transaction e.g. directly by the counterparty or through an executing broker, depending on whether it is an OTC transaction or a transaction concluded on a trading venue, the role of parties, the flow of information and the operational process differ. For instance, the flow of information is generally faster in the context of ETD clearing than in the context of OTC clearing.
7. CCPs require margins in order to clear derivative transactions. Therefore, in order to ensure that transactions are accepted for clearing, the relevant parties would also need to have in place an operational process allowing the timely transfer of collateral to satisfy the relevant CCP margin requirements. This operational process would need to be in place between the different relevant parties e.g. the clearing member and the CCP, the client and the clearing member, the indirect client and the client, up to the end of the chain. For this purpose, CCPs, trading venues and investment firms may need to contractually impose related obligations to their clients, to brokers given their role in the information flow and/or margin transfers. They may be entities other than CCPs, trading venues and investment firms.
8. In all situations, the systems procedures and arrangements should be in place between the involved parties in order to ensure the timely submission of the transaction to the CCP and its timely acceptance of the transaction for clearing purpose.

Q605: What are your views generally on (1) the systems, procedures, arrangements supporting the flow of information to the CCP, (2) the operational process that should be in place to perform the transfer of margins, (3) the relevant parties involved these processes and the time required for each of the steps?

Q606: In particular, who are currently responsible, in the ETD and OTC context, for obtaining the information required for clearing and for submitting the transaction to a CCP for clearing? Do you consider that anything should be changed in this respect? What are the current timeframes, in the ETD and OTC context, between the conclusion of the contract and the exchange of information required for clearing on one hand and on the other hand between the exchange of information and the submission of the transaction to the CPP?

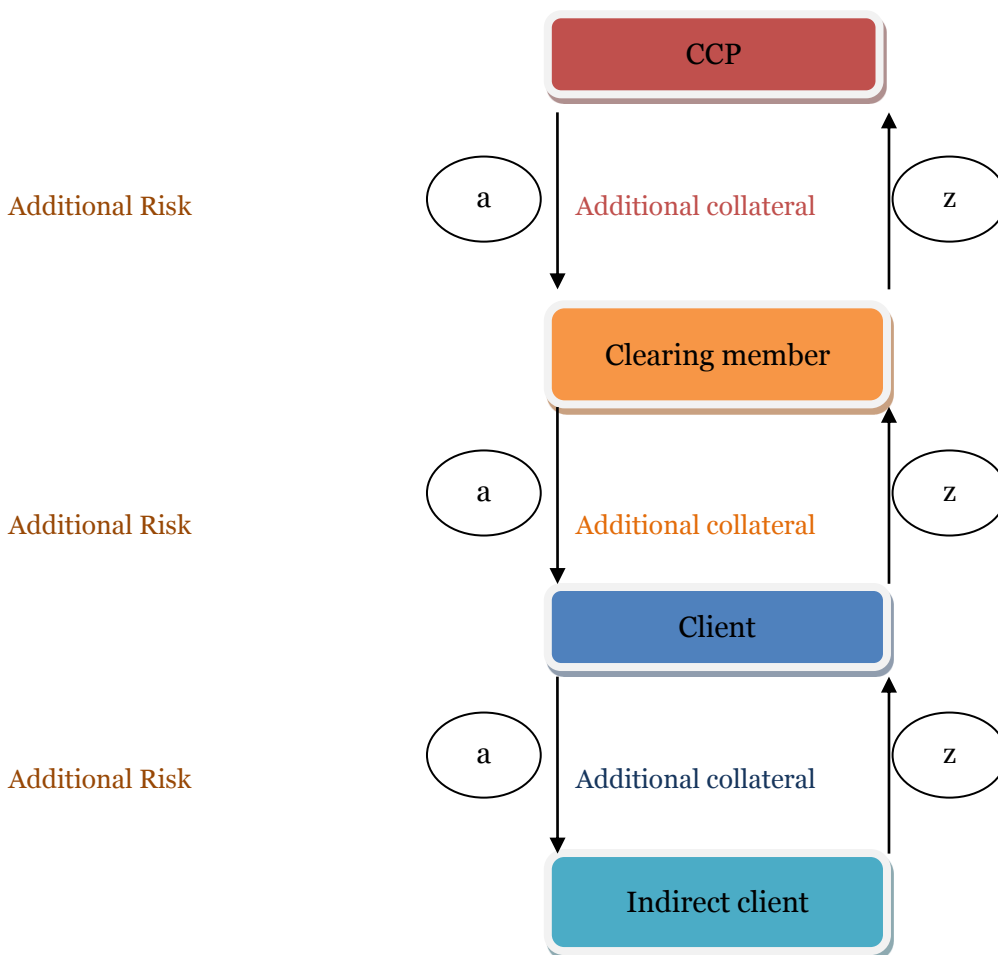
General risks arising from STP

9. It is generally accepted that STP makes markets work more efficiently. Indeed, STP reduces operational risk by removing the risk of human error. It increases certainty in the market as participants know more rapidly whether a trade has been accepted or rejected. It makes price formation more efficient. Finally STP significantly reduces the length of time during which counterparties to a bilateral derivative contract are exposed to each other's counterparty credit risk.

10. However, as STP imposes a short timeframe within which CMs and CCPs could assess whether to accept or reject a trade for clearing, it also raises important issues of risks.

Counterparty credit risk

11. The CCPs require initial margin for new trades submitted for clearing or when the pre-agreed limits are exceeded. Risks may arise from the operational process to transfer the cash/assets required by such CCP within the STP timeframe. The process would involve different parties such as the clearing member, clients, indirect clients. As a result, although reducing the timeframe during which counterparties are exposed to each other's credit risk, STP would allow counterparty credit risk to exist for a period of time between the CCP and the CM, the CM and the client, and so on.



There is a di-synchronisation between the moment the collateral is transferred (z) and the moment when the risk covered by this collateral arises (a). The collateral could be transferred before the risk arises, or the risk could arise before the collateral is transferred. In the first situation, the CM would be exposed to the CCP, in the second situation the CCP would be exposed to the CM.

12. The CCP would be exposed to the Clearing member, for instance in situations where the CM and the CCP would have pre-agreed limits (i.e. maximum amount of initial margin that the CCP “allocates” in respect of the CM clients’ accounts), and the amount of those limits would not be pre-funded by the

CM to the CCP. In fact, the CCP would grant a “credit line” to the CM for a limited period of time, and the CM would have to transfer at a later stage the relevant IM to the CCP in accordance with their agreement.

13. The CM would be exposed to the CCP, for instance, in situations where the CM and the CCP may have pre-agree limits (i.e. maximum amount of initial margin that the CCP “allocates” in respect of the CM clients’ accounts), and the amount of those limits would be pre-funded by the CM to the CCP i.e. the CM would have transferred the eligible assets buffer to the CCP in anticipation of IM calls for new cleared transactions. The CM would have an on-going exposure to CCP as long as the pre-funded amount is not fully allocated to cleared transactions. CMs that hold a buffer of pre-funded variation margin with the CCP would also be exposed to the CCP.
14. The CM would be exposed to its client, for instance, in situations where the CM has transferred eligible assets to the CCP to satisfy margin calls before the client has transferred such eligible assets, or the equivalence, to the CM.
15. The client may be exposed to its CM, for instance, in situations where the client has pre-funded the CM with a buffer, which may be held at the CM level, so that the CM is able to satisfy its obligation to the CCP for margin calls in respect of future transactions.

Q607: What are your views on the balance of these risks against the benefits of STP for the derivatives market and on the manner to mitigate such risks at the different levels of the clearing chain?

Assessment of the derivative transaction by the Clearing member

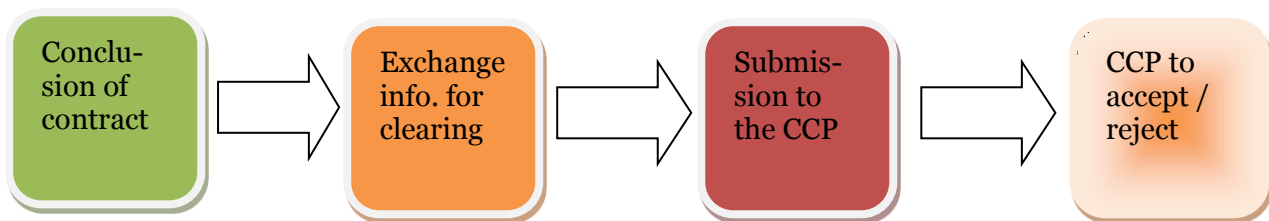
16. CCPs are generally organised under the open offer or novation models. In the open offer model, the CCP extends an “open offer” to act as counterparty to market participants and becomes directly the counterparty to the trade at the time it is executed. In the novation model, the trade is initially entered into between the seller and the buyer and, as a second step, the trade is submitted to the CCP. When the CCP accepts the clearing, the original contract is extinguished and replaced by two contracts between the CCP and each of the seller and the buyer.
17. It is therefore necessary to consider situations where clearing members are taking responsibility of their clients’ transactions vis a vis the CCP, as then they assume financial and performance responsibility for the derivatives submitted to the CCP for clearing. As a result, CMs are responsible and accountable for every position they carry and control on transactions submitted to the CCP is important for those CMs.
18. There are several manners to approach such control. The CM could communicate ex-ante limits to the CCP, or the CM could validate transactions before they are submitted to the CCP for instance.

Q608: When does the CM assume the responsibility of the transactions? At the time when the CCP accepts the transaction or at a different moment in time?

Q609: What are your views on how practicable it would be for CM to validate the transaction before their submission to the CCP? What would the CM require for this purpose and the timeframe required? How would this validation process fit with STP?

Timeframe of the submission of a transaction to the CCP

19. Submission of a transaction to the CCP should happen as quickly as technologically practicable using automated systems. In this respect, the market structure is different depending on the way the transaction is concluded. Systems are more often in place when a trading venue is used. Several intermediaries may also intervene in the chain up to the CCP.
20. A rapid submission of the transaction to the CCP will allow giving full efficiency to the management of counterparty risk. However, counterparties should remain aware that although limited in time, they could remain exposed to their counterparty for a period of time pending approval of the clearing and should in such case conduct necessary due diligence.
21. In the US, the CFTC²³⁴ considers that “as soon as technologically practicable” should be measured in seconds. A fixed period of time could be considered in order to measure the timeframe. It should apply as from the moment all the details required for clearing are exchanged between the counterparties. The timeframe between the conclusion of the contract and the exchange of information required for clearing should be minimised.



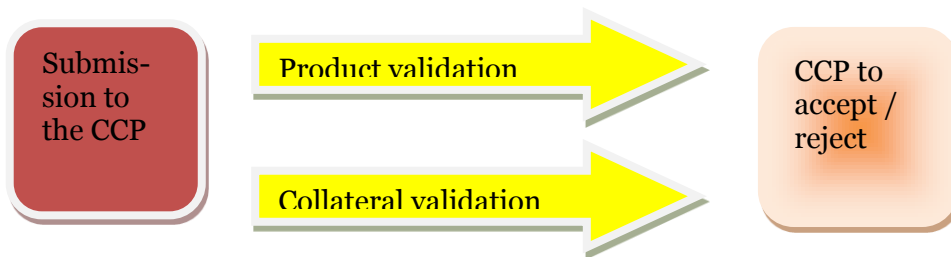
22. In order to minimise the timeframe required between the conclusion of a transaction and its submission to clearing, parties to the derivative contract should have all information required for the purpose of clearing, as soon as possible. For this purpose, information could be exchanged following the transaction within a set period of time or preferably before or at the moment when the transaction is concluded. This information would include for instance the designation of the CM and of the CCP. The earlier the information would be available, the earlier the transaction could be transferred ultimately to the CCP.
23. In order to facilitate and speed up the process, the CCP could be required to disclose in advance to the relevant parties the information that it needs to obtain in order to validly receive and process the request for clearing. This information would allow the parties to organise themselves in order to gather these data in a quick and complete fashion.

Q610: What are your views on the manner to determine the timeframe for (1) the exchange of information required for clearing, (2) the submission of a transaction to the CCP, and the constraints and requirements to consider for parties involved in both the ETD and OTC contexts?

Assessment of the derivative transaction by the CCP

²³⁴ See <http://www.cftc.gov/ucm/groups/public/@newsroom/documents/file/stpguidance.pdf>.

24. When the CCP has received the information related to the transaction, it shall assess whether the conditions to accept the clearing of that transactions are fulfilled. That assessment should include the validation of the product submitted for clearing as well as the availability of collateral to support that transaction.



Product validation risk

25. The validation of the product submitted for clearing represents a risk for the CCP which importance depends on the degree of standardisation or customisation of the derivative contract and the timeframe in which the validation shall be performed. In the ETD context, products are more standardised than in the OTC context and therefore the process could be more straight-forward. In the OTC context, where products can be much less standardised, the process could be more complex. In both contexts, the process should be rigorous as acceptance of an ineligible product, for instance following a gap in the operational process for product validation, could seriously impact the CCP.
26. The timeframe to be set for the CCP acceptance should therefore duly consider the product validation risk and the operational requirements that are necessary to mitigate such risk in both the ETD and the OTC contexts.

Q611: What are your views on the systems, procedures, arrangements and timeframe for (1) the submission of a transaction to the CCP and (2) the acceptance or rejection of a transaction by the CCP in view of the operational process required for a strong product validation in the context of ETD and OTC? How should it compare with the current process and timeframe? Does the current practice envisage a product validation?

Availability of collateral

27. The determination of the timeframe set for the CCP to approve or reject the transaction will complete the timeframe set for the submission of the transaction to the CCP ensuring a consistent timeframe of the full cycle from trading to clearing which is key in order to limit as much as possible counterparty risk.

28. In the current framework, when conditions for acceptance are not met²³⁵ for instance because the CM does not have sufficient collateral to meet margins, it would be possible for a CCP to inform the CM so that the CM can take actions. For instance, the CM can transfer additional collateral, or if the ex-ante limits set by the CM are exceeded, the CM can modify them. As a result of additional collateral being transferred or, of the modification of the limit, as the case may be, the CCP is in a position to accept the clearing of the transaction although it was not in the first place.
29. That flexibility, allowing information to be delivered and action to be taken, has the benefit to enlarge the number of transactions accepted for clearing. On the other hand, during the period of time pending the transfer of additional collateral or pending the modification of the ex-ante limit, the risk remains on the counterparties.

Q612: What should be the degree of flexibility for CM, its timeframe, and the characteristics of the systems, procedures and arrangements required to supporting that flexibility? How should it compare to the current practices and timeframe?

Derivative transactions rejected by the CCP

30. When a CCP rejects a derivative contract for clearing purpose, counterparties will need to face the situation and adapt. That situation will be different depending on whether a clearing obligation applies or whether clearing was provided on a voluntary basis although in both cases, the terms of the contracts may have been agreed upon in view of the clearing.
31. When counterparties are legally required to clear a derivative transaction they need to know in advance what will happen with the concluded transaction if it is rejected by the CCP. As in such case, the transaction could not be cleared, in order to be and remain compliant with the clearing requirement, counterparties should have agreed upfront on steps and actions following a rejection of the transaction. This is important in order to limit negative effects resulting from CCP rejection.
32. Counterparties may agree to consider void a contract that is not accepted for clearing, i.e. considering the contract as having no existence as of the date of its conclusion. It has the benefit of ensuring compliance with legal requirements. However, the counterparty may have to conclude again a similar transaction with another counterparty. Conditions may have changed and be different from those of the initial contract, including the price. It is therefore necessary to keep the timing between the conclusion of the transaction and its rejection as limited as possible.
33. For contracts that are cleared on a voluntary basis, the conditions may have been agreed upon in consideration of the clearing. Should the CCP reject the transaction, it is important for the parties to agree in advance on how the contract should be treated. Counterparties have more leeway in the manner to treat the rejected transaction as they are not bound by a legal requirement. However, conditions of the transactions may be different if clearing does not occur for instance in terms of pricing.

²³⁵ When the conditions are met, e.g. when the contract submitted for clearing is within the limits, the CCP can accept the contract within few seconds.



Q613: What are your views on the treatment of rejected transactions for transactions subject to the clearing requirement and those cleared on a voluntary basis? Do you agree that the framework should be set in advance?

9.2. Indirect Clearing Arrangements

Background/Mandate/Empowerment

1. ESMA is required to draft technical standards to specify the minimum requirements for systems, procedures and arrangements taking into account the need to ensure proper management of operational or other risks, and would have on-going authority to update these requirements as industry standards evolve.

Article 30, MiFIR

1 Indirect clearing arrangements with regard to exchange traded derivatives are permissible provided that those arrangements do not increase counterparty risk and ensure that the assets and positions of the counterparty benefit from protection with equivalent effect to that referred to in Articles 39 and 48 of Regulation (EU) No 648/2012.

2. ESMA shall develop draft regulatory technical standards to specify the types of indirect clearing service arrangements, where established, that meet the conditions referred to in paragraph 1, ensuring consistency with provisions established for OTC derivatives under Chapter II of Commission Delegated Regulation (EU) No 149/2013.

Analysis

2. The mandate given to ESMA regarding the development of RTS to specify the types of indirect clearing arrangements in the scope of MIFIR is very similar, although not perfectly identical, to the mandate granted under EMIR.

EMIR - Article 4(3) and (4)

Clearing obligation (Indirect Clearing Arrangements)

3. The OTC derivative contracts that are subject to the clearing obligation pursuant to paragraph 1 shall be cleared in a CCP authorised under Article 14 or recognised under Article 25 to clear that class of OTC derivatives and listed in the register in accordance with Article 6(2)(b).

For that purpose a counterparty shall become a clearing member, a client, or shall establish indirect clearing arrangements with a clearing member, provided that those arrangements do not increase counterparty risk and ensure that the assets and positions of the counterparty benefit from protection with equivalent effect to that referred to in Articles 39 and 48.

4. In order to ensure consistent application of this Article, ESMA shall develop draft regulatory technical standards specifying the contracts that are considered to have a direct, substantial and foreseeable effect within the Union or the cases where it is necessary or appropriate to prevent the evasion of any provision of this Regulation as referred to in paragraph 1(a)(v), and the types of indirect contractual arrangements that meet the conditions referred to in the second subparagraph of paragraph 3.

3. Both mandates differ by two aspects. First, the MIFIR mandate is drafted by referring to “the types of indirect clearing service arrangements” whereas the EMIR mandate is drafted by referring to “the types of indirect contractual arrangements”. Second, EMIR requires a counterparty to become a CM, a client or an indirect client (“...shall establish indirect clearing arrangements” article 4(3) paragraph

2), whereas MIFIR provides that becoming an indirect client is permissible (“Indirect clearing arrangements with regard to exchange traded derivatives are permissible” article 30(1)).

4. As EMIR provides for a clearing obligation that would apply to financial and non-financial counterparties it also provides for a safe access to CCP as a CM, client or indirect client. MIFIR does not provide for such a clearing obligation but deals with ETD therefore transactions that are already in the clearing sphere. As a result, one could consider that the scope of the MIFIR regulation would be narrower as it would apply to investment firms as opposed to financials and non-financials above the clearing threshold.
5. On the other hand, in order to clarify the differences between both mandates, it is important to note that the objectives of the RTS in EMIR and MIFIR are similar: they aim at ensuring that the indirect clearing arrangements do not increase counterparty risk and ensure that the assets and positions of the counterparty benefit from the protection granted by rules on segregation, portability and default procedures. Furthermore, MIFIR refers to the provisions adopted pursuant to EMIR and the need to ensure consistency with these EMIR provisions. Finally, no recital in the MIFIR regulation would support a different scope of mandate. It is therefore proposed to adopt a similar approach to develop MIFIR RTS as for EMIR RTS.
6. The arrangements would extend beyond the contractual relationship between the indirect clients and the client of a CM that provides indirect clearing services. They would cover the structure of the indirect clearing agreement, the obligations of the CCP, the obligations of the CM, and the obligations of the clients.

Q614: Is there any reason for ESMA to adopt a different approach (1) from the one under EMIR, (2) for OTC and ETD? If so, please explain your reasons.

Q615: In your view, how should it compare with current practice?