5. Accompanying documents

5.1 Draft cost-benefit analysis/impact assessment

Article 16(2) of the EBA Regulation (Regulation (EU) No 1093/2010 of the European Parliament and of the Council) provides that, where appropriate, the EBA should analyse 'the related potential costs and benefits' of guidelines issued by the EBA. Such analysis shall be proportionate in relation to the scope, nature and impact of the guidelines. The following section provides an impact assessment of the guidelines. It includes an overview of the findings regarding the problems to be dealt with, options available to tackle the problems, and cost-benefit analysis compared with the baseline scenario.

Given that the guidelines touch mainly upon qualitative issues relating to the management of the IRRBB that do not imply any detrimental quantitative impact, the nature of the study has been adjusted accordingly. The analysis is therefore high-level and qualitative in nature; a quantitative impact assessment was not conducted within this first stage of the implementation of the BCBS Standards. Nevertheless, the EBA plans to conduct a quantitative impact study once its new mandates for drafting binding technical standards on IRRBB are approved in the revised CRD/CRR.

A. Problem identification

Interest rate risk in the non-trading book (IRRBB) is an important financial risk for credit institutions, which has traditionally been considered under Pillar 2. The supervisory framework therefore assumes that institutions develop their own methodologies and processes for identification, measurement, monitoring and control of this risk. These methodologies and internal processes are subject to the supervisory review and evaluation process carried out by the competent supervisory authorities.

The development of appropriate and high-quality internal methodologies and processes for the identification, measurement, monitoring and control of IRRBB constitutes one of the main prerequisites for keeping this risk under control.

In May 2015, the EBA published Guidelines on the management of IRRBB, to communicate its expectations regarding the management of IRRBB. These guidelines took into account the existing supervisory expectations and practices at that time, including the principles for the management and supervision of interest rate risk published by the BCBS in 2004.

In April 2016, the BCBS published an updated version of its standards on the management of IRRBB (BCBS Standards) to reflect changes in markets and supervisory practices. The BCBS Standards have confirmed the Pillar 2 approach to IRRBB and introduced some new elements in the management of IRRBB. Institutions are expected to implement the BCBS Standards by 2018.

The BCBS Standards, in general, apply to large internationally active institutions (banks) on a consolidated basis. The EBA guidelines, on the other hand, apply to institutions authorised by the competent authorities to carry out their activities throughout the EU, taking into account the principle of proportionality. Given this, the EBA guidelines endeavour to maintain the level playing field as much as possible by translating international standards, deemed to be applied by the largest internationally active institutions only, to the single book of guidelines which are then applied in the same manner to institutions in all Member States.

The EBA guidelines published in May 2015 significantly increased transparency in terms of the supervisory expectations on the management of IRRBB. Nevertheless, the experiences of the national competent authorities have shown that some concepts and expectations introduced in the guidelines have not been fully understood or implemented in a way that is consistent with the supervisory expectations. Consequently, the implementation of the EBA guidelines varies across jurisdictions, which may have negative repercussions on the comparability of the level of IRRBB exposures that institutions face and ultimately on the risk profile and vulnerability of the institutions concerned, especially in the environment where changes in the general level of interest rates, which drive the level of risk, are widely expected. The issue of comparability mainly relates to the outcomes of the supervisory outlier test.

In addition, the EBA's general policy approach as far as guidelines are concerned is to review all guidelines on a regular basis and update them when needed, taking into account, among other things, the latest developments on international forums to make sure that guidelines spell out all relevant expectations.

After carefully considering the principle of a level playing field, divergences in the implementation of the existing EBA guidelines and resulting issues with the comparability of the outcomes of the supervisory outlier test, and given the need to reflect the developments in the international regulatory environment, the EBA deems it necessary to update the existing framework.

B. Policy objectives

The main objective of these EBA guidelines is to set and communicate supervisory expectations for the management of IRRBB and to make sure that institutions implement appropriate internal risk management methodologies, processes and practices. The guidelines aim for European institutions to align with the BCBS Standards and follow the same rules as their international counterparts.

Building upon the current EBA guidelines on IRRBB and taking into account the BCBS Standards, the updated guidelines are expected to improve institutions' management of IRRBB, lead to the harmonisation of institutions' practices, and ultimately create a level playing field across EU jurisdictions with safer and sounder institutions.

C. Options considered and baseline scenario

When the BCBS published its new Standards in April 2016, the EBA considered its approach to and the timing of the update of the current EBA guidelines on IRRBB. Two general options were identified: keep the status quo until the finalisation of the CRD V package, or update the existing guidelines as soon as possible and as long as practical with some transitional provisions for smaller institutions.

Both options have been considered and analysed in the light of the identified problems.

Option 1 – Status quo until the finalisation of the CRD V package

The status quo approach would not solve any of the identified problems. On the contrary, it might even worsen the situation given the changing interest rate environment. It is highly likely that it would have a negative impact on the level playing field, since large internationally active banks would implement the BCBS Standards directly, while other institutions would probably not implement them at all or implement them inconsistently depending on the approach, if any, adopted by the national competent authorities. Institutions with low levels of international activity might be excluded from implementing the BCBS Standards without considering their IRRBB exposures, although their IRRBB exposures might be elevated. This option would also preserve the issue of impaired comparability across institutions and jurisdictions given incomparable assumptions employed in the calculation of IRRBB exposures and especially the supervisory outlier test. Lastly, the EU framework and expectations regarding the management of IRRBB would not reflect the latest developments on international forums.

Option 2 – Updating the existing guidelines as soon as possible and practical

The update of the existing guidelines would help to remedy the identified issues, enhance the management of IRRBB by institutions, and create a level playing field that fosters competition among EU banks and competitiveness vis-à-vis their international competitors.

As the majority of the EU institutions belong to jurisdictions that are also members of the BCBS, they are expected to implement the BCBS Standards by 2018. To this end, the EBA judges that both competent authorities and institutions should be provided with updated EBA guidelines that are aligned with the new BCBS Standards. A delayed response by the EBA would create uncertainty during a transitional period about whether or not the BCBS framework coincides with the EU approach.

Although the CRD V is expected to include new mandates for the EBA for the preparation of technical standards and revised guidelines on IRRBB, given the time needed for the finalisation and implementation of CRD V and, subsequently, for the development and implementation of the technical standards and revised guidelines, there would be a significant time gap between the implementation of the BCBS Standards on the one hand and the introduction of the technical standards and revised guidelines on the other. The update of the EBA guidelines prior to the finalisation of CRD V will allow this time gap to be bridged.

After taking considering the available arguments for both options, the EBA decided that option 2, i.e. updating the guidelines, was the preferred option.

In addition to the two general options regarding the update of the guidelines and its timeline (see above), the EBA has also considered several specific options regarding the supervisory outlier test and principles for the calculation of this test. The EBA has, in particular, considered available options for the following principles: (i) the treatment of NPEs, (ii) the treatment of commercial margins, (iii) the after-shock negative interest rate floor, (iv) the minimum coverage of currencies and (v) the aggregation of currencies.

Treatment of NPEs

Option A: providing guidance on how NPEs should be treated within the supervisory outlier test.

Option B: retaining the same approach as in the current guidelines, where no specific expectations on the treatment of NPEs have been provided.

Option A would allow better and more comprehensive coverage of interest rate sensitive instruments, as NPEs can, in general, be regarded as interest rate sensitive assets, taking into account the timing of their recovery.

Option B would leave the treatment of NPEs open and up to institutions, thus not improving the comparability of the outcomes of the supervisory outlier test. Moreover, it might also lead to the underestimation of IRRBB depending on NPE volumes.

Option A has been selected.

Treatment of commercial margins

Option A: providing guidance on the treatment of commercial margins, but allowing institutions to apply their own internal approach in terms of the exclusion or inclusion of commercial margins.

Option B: providing guidance on the treatment of commercial margins and instructing institutions to use only one specific option in terms of the exclusion or inclusion of commercial margins.

Option A would give institutions full flexibility regarding the treatment of commercial margins. This option is especially important for institutions with less flexible or less developed internal systems that do not make the exclusion possible without additional adjustments and costs. The drawback of option A is that allowing flexibility for the calculation of the supervisory outlier test (with or without commercial margins) makes the outcomes of the test less comparable.

Option B would, on the other hand, not allow any flexibility. It would mean that institutions would have to adjust their systems accordingly. This option would bring additional costs for institutions that do not have flexible internal systems to calculate the supervisory outlier test with or without commercial margins. On the plus side, this option would allow more comparability of the outcomes of the supervisory outlier test.

Option A has been selected. In addition, institutions are asked to notify the competent authority which approach they use.

After-shock negative interest rate floor

Option A: providing specific guidance on the after-shock negative interest rate floor.

Option B: retaining the 0% floor stipulated in the current guidelines.

Option A would reflect the interest rate environment in some countries where interest rates have moved to the negative territory and, thus, it would show the impact of negative interest rates on EVE under certain interest rate shock scenarios.

Option B would keep the existing approach, which might be more appropriate for some interest rate sensitive instruments, e.g. retail deposits.

Option A has been selected.

Minimum coverage of currencies

The minimum coverage of currencies is an important element in the calculation of the supervisory outlier test. It should be, on the one hand, sufficiently high to cover all material currencies and related material interest rate risk positions. The full coverage of all currencies may, on the other hand, require significant investments to cover each and every currency, including insignificant currencies which do not pose any material risk.

Option A: providing guidance to include at least currencies which account for 5% of the total non-trading book financial assets (excluding tangible assets) or liabilities and, at the same time, covering at least 90% of these non-trading book items.

Option B: providing guidance to include non-trading book positions in all currencies.

Option A would provide reasonable coverage by distinguishing between material and immaterial currencies and establishing a backstop of 90%.

Option B would assume full coverage of currencies without any differentiation in their materiality.

Option A has been selected.

Aggregation of currencies

Option A: to provide guidance on aggregating only negative changes to EVE occurring in currencies per interest rate shock scenario and disregarding any positive changes for the calculation of the supervisory outlier test.

Option B: to provide guidance on aggregating both the full value of negative changes to the EVE and a certain part of positive changes, applying specific rules for the diversification benefits for the calculation of the supervisory outlier test.

Option A represents the most conservative and the most prudent approach to the aggregation of currencies. The calculation is relatively straightforward without any need to apply rules for the diversification benefits between currencies, which would add additional complexity to the calculation of the supervisory outlier test.

Option B would recognise the diversification benefits between currencies.

Whereas option A was included in the consultative document, following the public consultation on the guidelines, and the feedback received from industry participants, the EBA opted for a middle ground between taking into account full diversification benefits (option B) and no diversification benefits (option A). The final guidelines allow institutions to calculate the aggregate EVE change for the supervisory outlier test adding together any negative and positive changes to EVE occurring in each currency but weighting positive changes by a factor of 50%. The approach allows some aggregation to be taken into account, recognising the benefits of risk diversification while still having a prudent approach.

D. Cost-benefit analysis

The safety and soundness of institutions go hand in hand with resources, both financial and human resources, allocated to the so-called three lines of defence model on control functions, covering the control function within the business function on the one hand, and the two independent control functions, i.e. the risk management and compliance function and independent internal audit function, on the other hand.

From the supervisory perspective, the aim of updating the guidelines is twofold. First, the intention is to set out the qualitative supervisory expectations regarding the management of IRRBB and, ultimately, ensure that institutions further enhance their internal risk management methodologies, processes and practices. Sections 4.1, 4.2, 4.3 and 4.4 of the guidelines deal with supervisory expectations in this respect. Second, the supervisory outlier test is an important supervisory tool which should provide supervisors with relevant and comparable information on the levels of risk that individual institutions face in terms of EVE. In order to increase the relevance of the supervisory outlier test, the guidelines provide that institutions should apply six currency-specific interest rate shock scenarios in addition to the parallel +/-200 bps shocks. The six shock scenarios should better capture possible movements, including tilts and bends, of interest rates. The comparability of the test across institutions is, to a great extent, driven by assumptions and principles used for its calculation. Therefore, the guidelines stipulate principles for the calculation of the supervisory outlier test as set out in section 4.5.

1) Update of the qualitative supervisory expectations

Costs

As far as costs are concerned, the institutions will have to allocate resources, first, to review the compliance of their internal frameworks for the management of IRRBB with the updated EBA guidelines (gap analysis) and, second, to update the framework accordingly. Both the gap analysis and the update will require some financial and human resources. However, the general prudential expectation regarding the management of risks assumes that institutions regularly review and update their frameworks, including the developments in BCBS Standards. In this respect the update will not bring significant additional costs. Obviously, institutions will incur some costs especially for adjusting their IT systems, which play an important role in the management of IRRBB, should their gap analysis reveal a need for any upgrade or adjustments. The magnitude of IT-related costs will vary depending on the flexibility of a particular IT system but the overall cost in relation to the total operational costs is estimated to be relatively limited. Competent authorities are expected to have administrative costs related to the implementation of the guidelines.

Benefits

The positive effects of the update include a wide range of benefits. On the one hand, the guidelines will bring more clarity on supervisory expectations for institutions and, on the other hand, they will strengthen the safety and soundness of institutions given the improved internal risk management frameworks, which is beneficial for the financial system as a whole.

Costs versus benefits

The benefits of the update clearly outweigh associated costs, as there are no significant additional costs on top of expenditure on regular reviews and updates of internal risk management frameworks. The costs of any improvements to the risk management of IRRBB are expected to be outweighed by the benefits of an improved understanding and mitigation of the risk, reducing the incidence of unexpected losses. Moreover, the update will enhance the safety and soundness of institutions and help maintain the level playing field.

2) Supervisory outlier test

Costs

The current EBA guidelines on IRRBB provide five principles for the calculation of the supervisory outlier test including shock scenarios (+/-200 bps). The updated guidelines, on the hand, specify 19 principles including 2 sets of shock scenarios in order to increase the comparability of results and limit unjustified or unreasonable assumptions, which could lead to the understatement of IRRBB. Institutions may incur costs related to the implementation of both the principles for the calculation and the six shock scenarios.

When it comes to the implementation of the six shock scenarios, the implementation costs should be rather limited given the fact that the current guidelines have already introduced an expectation that institutions apply an appropriate range of different interest rate shock scenarios. Therefore, institutions should already have internal systems flexible enough to use additional shock scenarios and to calculate changes in EVE accordingly (see the comment on negative interest rate shock scenarios, below). Consequently, the EBA does not expect any additional specific costs in this respect.

The remaining principles (17 principles without 2 sets of shock scenarios) for the calculation of the supervisory outlier test combine (i) the principles from the current guidelines, e.g. risk-free yield curve, (ii) new general principles such as run-off balance sheet, minimum coverage in terms of currencies, aggregation of currencies, etc., and (iii) new specific principles, e.g. negative interest rate floor and the treatment of commercial margins.

One can reasonably expect that the principles that have already been introduced in the current guidelines will not bring any additional costs although institutions may, on their own, decide to revisit their systems to make them more flexible or appropriate for risk management purposes.

The new general principles, which aim to improve the comparability of the outlier test results, may require some additional financial resources to adjust internal systems. This may in particular be the case for the inclusion of non-performing exposures.

Similarly to the general principles, the specific principles pursue the goal of increasing comparability, and, accordingly, deal with some distinctive features of IRRBB such as negative interest rates in the shock scenarios and the treatment of commercial margins. Having been aware of the complexity the treatment of commercial margins may bring, the EBA has decided to make both options possible, i.e. either inclusion or exclusion depending on the abilities of internal systems and compliance with certain conditions for the latter. Thus, institutions should not have any additional costs. The removal of the 0% floor and the application of negative interest rates will probably require some investments, especially for institutions whose internal systems are not able to tackle negative interest rates. The related costs will largely depend on the flexibility of a particular IT system.

Benefits

The update of the section on the supervisory outlier test brings additional clarity for both supervisors and institutions alike regarding the way how the test should be calculated. A significant benefit is the increase of the comparability of the test results together with better information about the IRRBB position under various shock scenarios capturing a wide range of interest rate movements.

Costs versus benefits

The updated guidelines bring both benefits and costs. The benefits are mainly related to the improved clarity on how institutions should calculate the supervisory outlier test and the significantly increased comparability of its results, while the costs stem from changes necessary to be made in institutions' internal systems. However, these costs are rather one-off costs and balanced by overall benefits.

5.2 Feedback on the public consultation and on the opinion of the BSG

The EBA publicly consulted on the draft proposal contained in this paper.

The consultation period lasted for 3 months and ended on 31 January 2018. Twenty-three responses were received, of which 19 were published on the EBA website.

This paper presents a summary of the key points and other comments arising from the consultation, the analysis and discussion triggered by these comments and the actions taken to address them if deemed necessary.

In many cases several industry bodies made similar comments or the same body repeated its comments in the response to different questions. In such cases, the comments and EBA analysis are included in the section of this paper where the EBA considers them most appropriate.

Changes to the draft guidelines have been incorporated as a result of the responses received during the public consultation.

Summary of key issues and the EBA's response

There was general agreement that interest rate risk arising from non-trading book activities (IRRBB) is an important financial risk for banks, as adverse movements in interest rates have the potential to pose a risk to banks' earnings and capital position, and that exposure to IRRBB should be properly managed. Given the nature of IRRBB, respondents continue to support that IRRBB is captured under Pillar 2.

A general comment raised by several respondents was that the guidelines should not frontload the implementation of the BCBS Standards in the EU Level 1 legislation under the form of the Capital Requirements Directive and the Capital Requirements Regulation that are currently under revision. Whereas there is support for the inclusion of the qualitative aspects of the BCBS Standards in the revised guidelines, several respondents objected to the inclusions of any quantitative components such as the additional outlier test. It was also pointed out that the additional outlier test should be subject to a quantitative impact assessment, even if it is implemented as an 'early warning indicator'.

The introduction of the credit spread risk in the banking book (CSRBB) raised a number of comments. The definition, scope and expectations were perceived as not being sufficiently detailed. Furthermore, several respondents indicated that CSRBB should not be included in the IRRBB Guidelines because of the different nature of the credit spread risk.

Respondents underlined that internal capital for IRRBB should be held to the extent that there is a risk of loss, and asked for this to be made specific throughout the section on internal capital. Respondents appreciated the explicit confirmation that banks are expected to model their capital requirement using their own internal models with an earnings and economic value approach. In addition, the use of the term ‘economic value’ as opposed to ‘EVE’ throughout the section on internal capital is welcomed, as it acknowledges the diversity of business models and hedging practices.

Respondents noticed a greater focus on derivatives in the revised version of the guidelines but interpreted the provisions as seemingly viewing derivatives as a potential source of risk taking in the banking book, as opposed to a set of hedging instruments that are used to reduce risk. A number of respondents did not see the purpose of separately quantifying the IRRBB of banking book derivatives.

The transitional period granted to SREP category 3 and 4 banks was welcomed in view of the significant effort required, particularly on the part of the smaller banks, to implement the new requirements on CSRBB and the additional outlier test. A number of respondents indicated that the larger SREP category 1 and 2 banks would also need more time to implement the guidelines and requested to delay the implementation date accordingly.

Whereas the general principle of proportionality included in the guidelines was welcomed, there was a request for proportionality to be more explicitly detailed in each section. In particular, it was requested to clarify – in each section – the specific obligations that are not applicable to SREP category 3 and 4 institutions. Doing this would provide smaller banks with certainty about the supervisory expectations. Furthermore, the guidelines were seen by some to be overly burdensome for smaller, less complex banks, in particular the complexity of the information required under the supervisory outlier test.

For the calculation of the supervisory outlier test, a majority of respondents supported the flexibility provided to institutions to include or exclude commercial margins. Not all institutions’ internal systems are flexible enough to exclude commercial margins, as their development depends on the internal management framework. The costs of adapting systems to exclude margins are estimated to vary among banks.

The reference level of the proposed negative linear lower bound for the supervisory outlier test was perceived as being too conservative. In addition, the proposed currency aggregation which disregards any positive changes to the EVE was deemed to be punitive for institutions that aim to manage interest rate risk on a combined balance sheet basis across all currencies. In view of the correlation between currencies, respondents proposed allowing aggregation of all currency shocks, irrespective of their positive or negative outcome, for the purpose of the supervisory outlier test.

The EBA carefully examined all the comments received (see table below) and amended the text of the guidelines where appropriate.

Summary of responses to the consultation and the EBA's analysis

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
General comments			
Frontloading EU legislation	Several respondents pointed out that the guidelines should not frontload the EU legislation and suggested postponing the introduction of CSRBB and the new outlier test until the BCBS framework has been transposed into the CRD V/CRR II. Whereas some respondents supported the inclusion of the *qualitative* aspects of the BCBS IRRBB Standards into the EBA guidelines, they indicated that any *quantitative* components can be introduced only after the conclusion of the CRD V/CRR II framework. A few respondents proposed postponing the new guidelines entirely until the legislative process is concluded to avoid any misalignments and consequent recalibration of the guidelines that would constitute an additional implementation burden for institutions.	The EBA notes the suggestion of postponing the introduction of CSRBB and the new outlier test until the BCBS framework has been transposed into EU legislation. The EBA wishes to clarify that a transitional and progressive approach is adopted to the implementation of the BCBS framework to bridge the time gap between the implementation date of the BCBS IRRBB Standards (January 2018) and the entry into force of the revised CRD/CRR framework. The approach is focused on ensuring consistency between the different policy products. With regard to the additional outlier test, the EBA wants to clarify that no supervisory measures are attached to it under the guidelines.	No changes made
International level playing field	A few respondents recommended that the implementation of the BCBS Standards at EU level should be contingent on similar	The EBA agrees with the concern about the international level playing field, and wishes to point out that the full, timely and	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	implementation in major supervisory jurisdictions to avoid putting European banks at a competitive disadvantage, and secure a level playing field.	consistent implementation of the BCBS Standards remains fundamental to building a resilient financial system, maintaining public confidence and providing a level playing field for internationally active banks. Delayed or partial implementation may have implications for the level playing field, and puts unnecessary pressure on jurisdictions that have implemented the standards agreed at BCBS level.	
Level of application	A number of respondents raised questions about the level of application of the guidelines. Some respondents asked for clarification of whether the guidelines apply at solo/sub-consolidated level or at the highest consolidated level; others indicated that the guidelines should only be applicable at the highest level of consolidation. According to participants, in particular the 15% threshold for the additional outlier test should apply to banks that are neither large nor internationally active only after an impact study, as it has not been tested at the individual entity level or for smaller institutions. A few respondents asked for a clearer definition of small trading book business,	The EBA wishes to clarify that the scope of the guidelines includes institutions defined in point 3 of Article 4(1) of the CRR, covering both credit institutions and investment firms at the entity level. The level of application will be in line with the level of application of requirements applicable to the institution under CRD/CRR. This is in line with the scope of application for the current EBA IRRBB Guidelines. A quantitative impact study is planned to be organised in the light of the introduction of the new outlier test to replace the current outlier test in the Level 1 text (Capital Requirements Directive), and any related technical standards. For the quantitative impact study to be organised in the light of the introduction of the new outlier test, it is	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	especially with regard to the application level of the guidelines.	planned to invite also small- and medium-sized institutions to participate in order to test the impact at the level of different-sized EU institutions at consolidated and individual levels. The small trading book items are to be included in the calculation of the supervisory outlier test only for institutions taking advantage of the derogation granted in Article 94 of the CRR.	
Proportionality	A number of respondents indicated it would be useful if proportionality were explicitly detailed in each section to explain how proportionality can be applied in practice. In particular, it would be deemed helpful to clarify in each section for SREP category 3 and 4 institutions which specific obligations they are not expected to comply with. This would provide smaller banks with certainty about the supervisory expectations. Furthermore, the guidelines appear to be overly burdensome for smaller, less complex banks, in particular the complexity of the information required under the supervisory outlier tool. For the additional outlier test, additional qualitative and quantitative relief is requested for smaller and less complex	The EBA notes the comments on the proportionality, and wishes to clarify that proportionality applies throughout the guidelines as laid down in the general provisions. In addition to the current references to proportionality (in paragraphs 19, 20, 44(c), 46(b), 47, 86, 89, and 91) the EBA has strengthened the general proportionality principle throughout the different sections.	Paragraph 19 has been amended to include that institutions should identify their existing and prospective exposure to IRRBB **in a proportionate manner** depending on the level, complexity and riskiness of the non-trading book positions they face or through an increasing risk profile that takes into account their business model, strategies and the business environment they operate in or intend to operate in. In paragraph 20, it has been specified that, based upon the assessment of the existing and prospective exposure to IRRBB, institutions should consider ~~all~~ elements and expectations stipulated and implement them in a way commensurate with existing and prospective exposure to IRRBB. In paragraph 43(c), it has been added that institutions should also take into account the 'potential' impact on the P&L accounts of

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	banks – such as flexibility in terms of the frequency and complexity of calculations, or allowing banks with limited IRRBB to use simple and standardised stress tests with less frequent calculations and reporting. A number of respondents also asked that the high complexity of the interest rate scenarios be reduced depending on the size of banks, the complexity of their balance sheet structure and their limited IRRBB exposures.		hedging interest rate derivatives in case their effectiveness was hampered by interest rate changes. In paragraph 44(d), it has been clarified that, depending on the nature of an institution's activities and business model, sub-limits may also be identified for individual business units, portfolios, instrument types, specific instruments or **material** sub-types of IRRBB risk such as gap risk, basis risk and option risk. A reference has been included in paragraph 68 to make explicit that the management reporting should be adapted to the specific situation of the institution and the economic environment. It has been specified in paragraph 80 that the internal measurement systems should capture all components and sources of IRRBB **which are relevant for the institution's business model.** It has been clarified in paragraph 81 that institutions should measure and monitor the IRRBB of their banking book interest rate derivatives **where relevant for the business model**. It has been added in paragraph 99 that any **material** second-round affects should be computed in enterprise-wide stress tests.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Relation between IRRBB guidelines and the EBA EU-wide stress test	One respondent requested that the relation between the IRRBB guidelines and the EBA EU-wide stress test be defined, as well as the accounting standard that should be used.	The EBA wishes to clarify that IRRBB as such is not in the scope of the 2018 EBA EU-wide stress test. The stress test will include a stress of the NII (because of changes in reference rates and margins) and the cost of funding, but no stress of the IRRBB. For the 2018 EU-wide stress test, the IFRS 9 accounting standards have been incorporated.	No changes made
IT-related issues	Some respondents pointed out IT-related issues for the implementation of the guidelines. As a general consideration on IT systems and data quality, it was highlighted that the requirements for IT systems should not be identical for all institutions, but should cover only the relevant material risks for the institutions in question. One respondent indicated that, as NPEs are usually handled by banks in specific (credit-related) systems, integrating these systems within the IRRBB calculation engines could pose an issue, which could require significant IT investment as well as sufficient time and project resources. For this reason a longer implementation period is needed. A large number of respondents pointed out that implementing a linearly	The EBA notes the IT-related issues raised by respondents. As laid down in paragraph 54(a), the IT systems should capture interest rate risk data on all the institution's *material* IRRBB exposures. With regard to the application of paragraphs 54(b) and 54(e), and in line with the current IRRBB Guidelines, the EBA wishes to clarify that the IT systems should be sufficiently granular to be able to record all transactions and measure the contributions of individual transactions to the overall exposure. However, there is no real-time detailed reporting required on transaction level with regard to the impact of IRRBB. As indicated in paragraph 65, the internal reports should be provided to the management body or its delegates with information at relevant levels of	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	increasing lower bound would be cumbersome from an IT perspective (subject to IT constraints depending on the functionality offered by different ALM software solutions, the change in floor over time by 5 bps is difficult to automate in a system). Some respondents suggested clarifying if paragraph 54(b) and 54(e) apply at individual institution level and do not apply at consolidated level. That is to say that there is no requirement to have all individual transactions available at the consolidated level (typically at head office level). Each institution should be free to consider how to manage data on a line-by-line basis or an aggregated basis.	aggregation (by consolidation level and currency).	
Responses to questions in Consultation Paper EBA/CP/2017/19			
Subject matter, scope and definitions			
Definitions			
Question 1. **Are the definitions sufficiently clear? If not, please provide concrete suggestions and justify your answer.**			
Interest rate risk arising from non-trading book activities	Several respondents requested clarification on the definition of interest rate risk arising from non-trading book activities. According to respondents, 'current and prospective' risk does not	The EBA notes the comments with regard to the definition of interest rate risk arising from non-trading book activities, and would like to clarify that the reference to 'current and prospective' risk is in line with	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	seem compatible with the two measures of interest rate risk (earnings and EV), since EV only allows for a current, not prospective, estimate. Current risk to earnings would be unclear, as it would require factoring in assumptions to derive 'forward looking economic value' and it is difficult to understand what could be 'current earnings'. The word 'prospective' would need to be clarified or removed, as prospective risk to economic value seems to be questionable given the use of assumptions and resulting lack of comparability, and given that the value calculated is only relevant for any actual day. Clarification has been requested with regard to the scope of IRRBB regarding business risk (product margins), as the pressure on business margins is not always due to changes in interest rates; it may also be caused by increased competition in markets.	the BCBS definition. The definition also refers to current 'or' prospective risk. Business risk should be taken into account in the stress test for NII for maturing instruments and how credit spread of new business should be modelled (as provided for in paragraph 101(e)). The projection of NII takes into account the credit spread of new business that could be conditional on interest rate risk.	
Interest rate sensitive instruments	Several respondents requested clarification in the definition of how interest rate sensitive instruments affect IRRBB.	The EBA welcomes the comment and has amended the definition of interest rate sensitive instruments to remove the reference to instruments affecting IRRBB in order to align the definition with the one used in the BCBS Standards.	The definition of interest rate sensitive instruments has been amended to read: Assets, liabilities and off-balance-sheet items in the non-trading book, excluding assets deducted from CET1 capital, e.g. real estate or intangible assets or equity exposures in the non-trading book.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
		Furthermore, the reference to interest rate sensitive instruments in section 4.5 has been brought in line with the definition by removing the mention of the deduction of own funds, which would be broader than the CET1 deduction captured under the BCBS definition.	Paragraph 115(a) has been amended as follows: When calculating the change in EVE for the purpose of paragraphs 113 and 114, institutions should in particular apply the following principles: (a) All positions from interest rate sensitive instruments ~~**which are not deducted from own funds**~~ should be taken into account.
Gap risk	A few respondents requested clarification of the definition and the use of 'gap risk', and indicated that the current definition seemed to refer to yield curve risk instead of gap risk.	The EBA notes the comment on the gap risk definition and would like to clarify that the definition used in the guidelines is aligned with the one used in the BCBS Standards, which includes both yield curve and gap risk.	No changes made
Basis risk	Several respondents indicated that the definition of basis risk needs to be clarified, and that it does not seem to be used in a consistent way throughout the document. The definition refers to only changes in the spread between similar tenors, but in Table 1 it seems to limit the focus to 'derivatives and other hedging	The EBA notes the comments with regard to the definition of basis risk and would like to clarify that the reference to 'similar tenors' has been retained because the use of 'identical tenors' does not seem practical for the implementation. Nevertheless there is still a logical distinction between gap risk and basis risk.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	instruments' and broaden the scope to 'timing difference neglected by gap analysis.' In particular, since the definition in the definitions section refers to only changes in the spread between similar tenors, it is not clear whether or not the basis risk should also be referred to instruments indexed to Euribor/Libor with different tenors (e.g. asset Euribor 6 months paid semi-annually vs Euribor 1 month paid monthly).		
Option risk	Several respondents requested clarification of the definition of option risk. Respondents asked if embedded behavioural option risk includes implicit options that are not automatically exercised (e.g. loan commitment), and how they should be treated. Respondents pointed out that exercise scenarios that depend not on the market rate of interest but on the personal situation of the customer are not described here. If these are not classified under interest rate sensitive instruments with an impact on IRRBB, they should be added here. These options are not interest rate sensitive, but still affect interest rate risk.	The EBA notes the comments on the definition of option risk and agrees that wholesale loans could be considered behavioural assumptions. Implicit options that are not automatically exercised should also be taken into account in option risk. The definition is deemed to provide sufficient leeway to classify the options.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
CSRBB	Several respondents indicated that the CSRBB definition and/or its scope need to be clarified. The definition was deemed to be very broad and to capture unintended items, such as product margins. Respondents indicated that banks typically focus on a narrower definition of CSRBB – the potential variation in fair value spread-sensitive line items which has a direct impact on bank capital. Unlike the CSRBB definition in the BCBS Standards, it was deemed that the proposed definition creates a risk of double-counting with other types of risk – such as credit risk – that are already captured under the Pillar 1 framework.	The EBA welcomes the comments on the definition of CSRRBB, and proposes an amended wording for the definition. The revised wording aims to provide a positive definition and clarify the scope of CSRBB. Liabilities should be excluded from the scope of CSRBB, as the widening of spreads, i.e. deterioration of a bank's creditworthiness, would have a positive impact on the risk measure. The EBA wishes to clarify that credit risk referred to in the definition indicates migration risk. Further guidance on CSRBB will be provided in the future guidelines on CSRBB which are expected to be mandated under CRD V.	The CSRBB definition has been amended to read: The risk driven by changes in the market perception about the price of credit risk, liquidity premium and potentially other components of credit-risky instruments inducing fluctuations in the price of credit risk, liquidity premium and other potential components, which is not explained by IRRBB or by expected credit/(jump-to-)default risk.
Conditional cash flows	A few respondents requested clarification on the definition of conditional cash flows: in particular, whether they are connected only to behavioural assumptions on client actions or also to optionality in products, and if the definition is referring to product caps and floors and taking into account a number of rate paths.	The EBA wishes to clarify that the timing and amount of conditional cash flows is dependent on the specific interest rate path. This is linked not only to behavioural assumptions but also to optionality in products.	No changes made
Dynamic balance sheet	One respondent requested that the degree of dynamic modelling be proportionate to the impact of the	The EBA welcomes the comment and wishes to clarify that the depth of modelling should indeed be proportionate	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	particular metric and to the size of the institution.	to the impact of the particular metric and to the risk profile of the institution.	
Constant balance sheet	Several respondents indicated that the definition of constant balance sheet referring to 'like-for-like replacement of assets and liabilities as they run off' was too strict and not realistic. Respondents proposed allowing for a consistent duration of assets and liabilities, in line with responsible management of IRRBB.	The EBA acknowledges the comment on the constant balance sheet definition and wishes to clarify that the 'duration' is assumed. The definition aims for constant duration in the institution's balance sheet. In order to clarify this, the definition has been amended in line with the constant balance sheet definition used in the BCBS Standards.	The constant balance sheet definition has been amended to read: A balance sheet including off-balance-sheet items in which the total size and composition are maintained by replacing maturing or repricing cash flows with new cash flows that have identical features with regard to the amount, repricing period and spread components.
OTHER, NON-OUTLINED DEFINITIONS			
Automatic options	A few respondents asked for clarification of the definition of automatic options, and whether it includes only explicit options or also includes any non-retail implicit options (e.g. a loan commitment) that would be exercised automatically.	The EBA wishes to clarify that, in line with the BCBS Standards, automatic options are understood to refer to those options where the customer and the institution can assume that the exercise of options will be based on rational expectations, and where the holder will almost certainly exercise the option if it is in their financial interest to do so (as opposed to behavioural options, where behaviour will not always be rational). Automatic options include standalone instruments, such as exchange-traded and over-the-counter option contracts, and those which are explicitly embedded within the contractual terms of	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
		an otherwise standard financial instrument (e.g. a capped rate loan).	
Short and medium term	A few respondents requested clarification on the meaning of 'short' and 'medium' term, especially regarding earnings measures.	The EBA notes the comment and wishes to clarify that short term would be up to 3 years, medium term from 3 to 5 years, and long term over 5 years.	No changes made
Core and unstable balances	Further clarification was requested on the use of the terms 'core' and 'transient balances', and the difference between 'core' and 'unstable balances'.	The EBA welcomes the comment, and has amended the wording to align it with the definition of core balances included in the BCBS Standards. The EBA wishes to clarify that point (a) of paragraph 108 refers to loan prepayments, while points (b) and (c) are related to early redemption in term deposits. Furthermore the reference to low cost balances has been replaced with 'core and other modelled' balances.	The description of core balances in paragraph 108 has been amended to align it with the definition of core balances included in the BCBS Standards.
General provisions			
General comments			
Implementation timeline	Several respondents indicated that the industry would need more time to implement the guidelines and proposed a period of between 1 and 2 years for implementation after the release of the final version.	The EBA notes the comment and would like to indicate that a number of amendments have been made to the guidelines to ease the implementation (such as the clarification of the proportionality principle, the softening of the expectations for CSRBB, the simplification of the expectations on the setting of the risk	The implementation date has been amended to 30 June 2019 with an additional 6 months of transitional provisions for SREP category 3 and 4 institutions to implement the provisions on CSRBB (paragraph 18) and the additional outlier test (paragraph 114).

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	One respondent pointed out that, as NPEs are usually handled by banks in specific (credit-related) systems, integrating these systems within the IRRBB calculation engines could pose an issue, which could require significant IT investment as well as sufficient time and project resources. For this reason, a longer implementation period is needed.	limits, the inclusion of the link with the business models for the IRRBB measurement, the addition of a materiality threshold for the inclusion of NPEs for the purpose of the supervisory outlier test, and the softening of the approach for currency aggregation for the supervisory outlier test allowing currency diversification with positive changes to be weighted by a factor of 50%.) In addition to these amendments, the implementation date and transitional provisions have been postponed by 6 months to allow institutions more time to implement the guidelines.	
Calculation methods	One respondent pointed out that the annexes are not clear/extensive enough, because of a lack of base assumptions.	The EBA notes the comment, and wishes to clarify that Annex I is only illustrative and firms can use their own measurement methods as an alternative to those listed in Annex I. This has been made more explicit in the wording. The standardised approach will be further defined in the technical standards expected to be mandated under the CRD V framework.	Paragraph 86 has been amended to read: Institutions should not rely on a single measure of risk but should instead use the range of quantitative tools and models that corresponds to their specific risk exposure. To that end, institutions should consider the application of the methods listed in Annex I **but not limit themselves to those**, to ensure that various aspects of interest rate risk are captured adequately.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Question 2. **Are the guidelines in section 4.1. regarding the general provisions sufficiently clear? If not, please provide concrete suggestions.**			
Market value changes on earnings measure	Several respondents indicated that it is unclear why market value is included for the calculation of the impact of interest rate movements in the earnings perspective, as market value movements are already captured in EVE.	The EBA notes the comments, and wishes to clarify that market value changes apply to both earnings and EV measures.	No changes made
Earnings stress scenario	One respondent indicated that it is unclear how EaR positions are stressed. It is assumed that an EaR stress, i.e. one that assumes a constant balance sheet approach, is being suggested. If this is correct, it is not clear how these positions should be stressed. An EV-type stress would appear to be more appropriate. An EaR measure for a historical lookback could produce an outcome which is favourable, whereas a specified worst-case interest rate scenario will always be unfavourable for economic value. The guidelines need to make clear which approach is appropriate.	Further to the comments, the EBA wants to clarify that, as it is the interest rate which is stressed under the stress scenario, it is still possible to use a constant balance sheet.	No changes made
Derivatives and off-balance sheet items	A few respondents indicated that it is unclear what is expected from institutions regarding the interest rate risk from interest rate derivatives. They requested that interest rate sensitive loan	The EBA notes the comment and wishes to clarify that loan commitments are off-balance-sheet items and are considered interest rate sensitive instruments of	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	commitments be defined more specifically, in particular whether these apply only to fixed positions or also to variable positions.	which the expected cash flows and their timing need to be reflected.	
CSRBB identification, monitoring and measurement	Several respondents indicated that the actual expectations on the identification, monitoring and measurement of CSRBB should be specified, in particular the scope of CSRBB. Alternatively, CSRBB should be excluded from the guidelines because of the different nature of the risk, and in view of the risk of double-counting.	The EBA agrees that the guidance included in the guidelines on CSRBB is high level. In this respect, we amended the wording to fully align it with the requirement on CSRBB in the BCBS Standards. In line with the transitional and progressive approach to the implementation of the BCBS Standards, CSRBB has been included in the scope of the guidelines to allow banks to prepare for its implementation. More detailed requirements will be included in the guidelines expected to be issued under the mandate of CRD V.	The guidance on CSRBB in paragraph 18 has been amended as follows: Institutions should ~~**identify**~~ monitor ~~**measure**~~ and assess their CSRBB-**affected** exposures, **by reference to the asset side of the non-trading book,** ~~**and ensure that CSRBB is adequately controlled if**~~ **where CSRBB is** relevant for the risk profile of the institution.
Prospective exposure	A few respondents indicated that the reference to 'existing and prospective' exposure is either unclear or superfluous, as prospective risk already exists.	The EBA would like to clarify that the reference to 'current and prospective' risk is in line with the BCBS definition. The definition also refers to current 'or' prospective risk.	No changes made
Accounting standards	One respondent requested clarification that future interest income is calculated following the IFRS 9 principles. Cash flows should be aligned with the accounting recognition of interest income and balance sheet value.	The EBA would like to clarify that the accounting framework is outside the scope of these guidelines.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Legitimacy of interest rate risk	A few respondents pointed out that some IRRBB positions arise for legitimate reasons (e.g. operational time lags, macro hedges and expectations of offsetting customer flow), and requested that the guidelines explicitly acknowledge legitimate interest rate risk taking and differentiate it from less legitimate interest rate risk taking.	The guidelines aim to clarify the supervisory expectations regarding the management of interest rate risk arising from non-trading activities, regardless of the business rationale behind it.	No changes made
Treatment of cash flows from NPEs as interest rate sensitive instruments *Further guidance*	Several respondents suggested adding further guidelines on the NPE definition, technical guidance on NPE parameters, and standard parameters to be used by smaller banks (for proportionality reasons). It was also requested that smaller banks be allowed not to take into account NPEs. One respondent pointed out that banks should also take into account the behaviour of assets once an impairment has been recognised. It may be that such net exposures should be better regarded as a fixed, rather than variable, asset, but subject to modification based on the bank's actual approach. Another respondent indicated that the modelling of NPE requires significant data analysis and the need to make a number of assumptions. This could be burdensome and time-consuming, in	The EBA welcomes the comments, and has added a reference to the NPE definition in line with the ITS (EU) 680/2014 on supervisory reporting. Notwithstanding the heterogeneity of non-performing exposures, banks may employ several methodologies to model the cash flow profile of non-performing exposures based on their expectations: in general, the lower the credit quality of a non-performing exposure, the higher the likelihood that the associated cash flows will be driven by the time of repossession of the collateral or any other residual value of the exposure. On the contrary, the higher the credit quality of a non-performing exposure, the higher the likelihood that the associated cash flows will remain close to the contractual schedule.	A reference has been added to the NPE definition as included in Annex V of Regulation (EU) 680/2014.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	particular for those institutions that have portfolios with a low probability of default.	The inclusion of standard NPE parameters for smaller institutions does not seem feasible in the current environment.	
Treatment of cash flows from NPEs as interest rate sensitive instruments *Materiality threshold*	A few respondents suggested implementing a materiality threshold to avoid reporting very small exposures (e.g. 2% NPE/total loans). For banks below the 2% threshold, considering NPEs either as non-interest-bearing or without provisions should be allowed. in addition, small non-complex banks should be allowed to treat NPEs in a simpler way.	The EBA welcomes the suggestion and included a materiality threshold of 2% NPE ratio (non-performing debt securities and loans and advances/total gross debt securities and loans and advances). The materiality threshold will apply per institution for the purpose of the outlier test. Whereas the materiality threshold should be calculated using the gross NPE ratio, for the purpose of the calculation of the supervisory outlier test the NPEs net of provisions should be included. Institutions will not be required to include NPEs in the calculation for the purpose of the supervisory outlier test if the NPE ratio at institution level is below 2%.	The guidance for the inclusion of the NPEs for the calculation of the outlier test in paragraph 115(g) has been amended as follows: Institutions **with an NPE ratio of 2% or more** should include NPEs as general interest rate sensitive instruments whose modelling should reflect expected cash flows and their timing. NPEs should be included net of provisions.
Treatment of cash flows from NPEs as interest rate sensitive instruments *Provisions*	A few respondents requested clarification on the treatment of general provisions, IFRS 9 provisions and expected credit losses. One respondent proposed allowing flexibility to reflect the institution's individual management with regard to the inclusion of provisions.	The EBA wishes to clarify that institutions may employ a methodology to model the cash flow impact of both expected client defaults (a shortening in the duration of the cash flow) and the time-to-repossession of amounts due (a lengthening in the duration of the cash flow).	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Treatment of cash flows from NPEs as interest rate sensitive instruments *Possibility of excluding NPEs from the scope of interest rate sensitive instruments*	A few respondents indicated that NPEs should be factored in the IRRBB framework only if they are considered interest rate sensitive instruments in the internal models allowing a flexible approach.	The EBA notes the comment, and wishes to clarify that the guidelines explicitly require banks to map NPEs into their ALM systems as interest rate sensitive instruments, i.e. internal approaches that excluded those NPEs from projected cash flows would not be considered acceptable.	No changes made

Capital identification, calculation and allocation

Question 4.

Are the guidelines in section 4.2. regarding the capital identification, calculation, and allocation sufficiently clear? If not, please provide concrete suggestions and justify your answer.

IRRBB as contribution to a broader framework	Several respondents suggested that the draft guidelines should distinguish the recommendations that apply to 'IRRBB considered in isolation' from those that apply to 'IRRBB as contribution to a broader framework'. In this regard, it should be clarified that the internal capital buffer relates to the holistic stress test, covering all material sources of risk, including IRRBB, in combination with other risks, including IRRBB, in combination with other risks (i.e. not IRRBB considered in isolation).	The EBA notes the comments and wishes to clarify that model risk for IRRBB should be taken into account here and reflected in the ICAAP, since it is very specific. The inclusion of the model risk is in line with the approach of the BCBS Standards and reflects the fact that model risk is specifically relevant for the assessment of IRRBB. The reference to the revision of the dividend policy is also in line with the BCBS Standards and allows business risk to be taken into consideration. This instrument	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	Respondents requested that the following references be removed from the considerations for the allocation of internal capital: 'secular changes in the market environment', and 'revision of dividend policy or decrease in business operations'.	also allows a link to be made between the EVE and NII.	
Internal capital linked to loss risk/variability risk	Several respondents requested that it be made clearer as a principle that a capital charge should be required only when the bank is exposed to a risk of loss, and not a variability risk. The identification of capital needs should be based on institutions' actual level of risk, although it is interesting to identify what would be the potential capital needs if the Risk Appetite Statement (RAS) limits were fully used. One respondent noted that risk appetite is more aligned to the level of variability risk, be it in terms of economic value or of net interest income, that an institution is prepared to accept. The capital section may unintentionally provide scope for local regulators to allocate buffers against specific items. As there is not a universal capital allocation process for IRRBB across Europe, the introduction of risk appetite will add further differences to how banks	The EBA welcomes the suggestions, and has added to the guidelines that not only the impact of embedded losses but also that of embedded gains should be taken into account for the capital adequacy assessments for IRRBB. Embedded gains and losses refer to the difference between the current balance sheet carrying value of balance sheet items and their fair value amount. For example, consider an entity whose balance sheet has fixed interest rate assets and floating rate liabilities, accounted for at amortising cost (starting point). From the starting point, the interest rates have decreased, so that in the lower interest rate environment, the NII has improved in comparison with the NII obtained under the initial interest rate scenario and its EVE is higher than the book value of equity as well.	Paragraph 26(f) has been amended as follows: (Capital adequacy assessments for IRRBB should take into account the following:) (f) the impact of embedded losses **and embedded gains**.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	capitalise this risk. The risk appetite could be viewed as a bank's internal appetite for IRRBB variability, so its inclusion within the capital assessment process leads to a conclusion that it is the IRRBB variability that needs to be capitalised. The potential capital needs should reflect actual risks and not assumed risks. Besides, it should be noted that RAS metrics and limits usually refer to variability risk while potential capital needs refer to loss risk. Respondents requested that any capital requirement due to potential reduced earnings should be excluded from the guidelines. The objective of the IRRBB Guidelines should be to protect banks from losses and not from reduced earnings.	When measuring the potential decline on NII/EVE in the downward interest rate scenario, the bank evaluates the risk of a potential decline in NII/EVE in an upward interest rate scenario. However, if this decline in NII/EVE occurs, the bank will be returning to the starting point (EVE is aligned with the book value of equity). Consequently, for evaluating the capital needs on IRRBB, the potential decline in NII/EVE should be considered along with the embedded gains (or embedded losses in the other balance sheet structure). The variability needs to be taken into account, for example when the NII variability of the institution is too high, which might require the adaptation of the dividend policy.	
Imperfect modelling assumptions	Clarification was requested that the sensitivity of metrics to imperfect modelling assumptions should be measured, but that this should not lead to identifying capital needs for IRRBB, as it is not purely IRRBB-driven. It would make more sense to consider the changes in behaviour, competition, business modes, etc. in the framework of holistic stress tests, where those sensitivity analyses would be typically addressed as business risk.	The EBA notes the comments and wishes to clarify that model risk for IRRBB should be taken into account here and reflected in the ICAAP, since it is very specific. The inclusion of the model risk is in line with the approach of the BCBS Standards and reflects the fact that model risk is specifically relevant for the assessment of IRRBB.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Double-counting	One respondent suggested removing the notion of double-counting in paragraph 23. Similarly, another respondent noted that it is difficult to combine both EVE and earnings approaches in a meaningful way and that more guidance on this would be welcome.	The EBA wishes to retain flexibility in view of the different approaches in different institutions. Since there is a lot of room to measure the internal capital for the ICAAP, it would not be feasible to provide more detailed guidance in this respect.	No changes made
Derivatives	Some respondents requested clarification on how the size and tenor of internal limits on IRRBB exposures – and whether or not these limits are reached at the point of capital calculation – feeds into the capital adequacy assessment of IRRBB. A few respondents asked for clarification of what cost of hedging is envisaged to be taken into account for the capital adequacy assessment. It is clear that the 'cost', or risk exposure, of an open position is something which should form part of an institution's capital assessment. However, making an assessment of the effectiveness of hedging open positions is not something that would be expected to be included for the purpose of the capital assessment. It was indicated that further clarification is needed on the meaning of the 'impact of embedded losses' that institutions need to take into account in the capital adequacy assessments for IRRBB. Embedded losses can arise within the banking book as a	The EBA welcomes the comments, and has added in the guidelines that not only the impact of embedded losses but also that of embedded gains should be taken into account for the capital adequacy assessments for IRRBB. The guidance for the size and tenor of internal limits on IRRBB exposures to be taken into account for the capital adequacy assessment for IRRBB is in line with the BCBS Standards, and can provide institutions with useful information for the assessment. The guidance for banks to take into account the expected cost of hedging open positions in the capital adequacy assessments for IRRBB does not refer to all hedging, but to those that are intended to take advantage of internal expectations of the future level of interest rates. The EBA agrees with the comment about the 'effectiveness' of the hedging in this	Paragraph 26(f) has been amended as follows: (Capital adequacy assessments for IRRBB should take into account the following:) (f) the impact of embedded losses **and embedded gains**. Paragraph 26(b) has been amended as follows: (Capital adequacy assessments for IRRBB should take into account the following): (b) the ~~**effectiveness and**~~ expected cost of hedging open positions that are intended to take advantage of internal expectations of the future level of interest rates.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	result of different activities and, in some instances, may be realised only as a result of changes in management strategy or customer behaviour. Conversely, the same can also be said of embedded gains within the banking book, and any realised embedded losses under stress, expected to be included in the capital assessment, should be net of any embedded gains that may also be realised under stress. Further clarification is requested on the provision for institutions to take into account the 'circumstances under which the risk may materialise' for the capital adequacy assessments for IRRBB.	context, and has removed the reference accordingly. As regards the 'drivers of the underlying risk' that institutions need to take into account for the capital adequacy assessments for IRRBB, these refer to a wide range of risk drivers, not only for IRRBB but for the whole ICAAP (e.g. referring to the macro-economic environment) which may materialise under the interest rate risk.	
Other	One respondent asked for clarification about the articulation between the supervisory outlier test and the supervisory assessment of internal capital. Some respondents requested clarification on the definition of embedded losses. One respondent asked how institutions can measure the impact of shock and stress scenarios on positions priced with different interest rate indices (basis risk).	The EBA welcomes the comments and would like to clarify that embedded losses are those losses embedded in the net present value of the banking book. With regard to the measurement of the impact of shock and stress scenarios on positions priced with different interest rate indices, we refer to the measurement methods to calculate the basis risk that are included in Annex I.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Question 5. **Do you agree with the list of elements to be considered for the internal capital allocation in respect of IRRBB to earnings in paragraph 30? If not, please provide concrete suggestions and justify your answer.**			
Loss risk/variability risk	Many respondents stated that only elements linked to the risk of actual losses and not to the variability of earnings should be considered for the internal capital allocation in respect of IRRBB to earnings. There are ambiguities in the internal capital requirement section in this regard. Some statements explicitly relate to loss risk, while some other statements seem to refer to variability risk and to enterprise-wide stress tests (e.g. 'reduction in dividend policy', 'maintain business operations'). In their opinion, internal capital should relate to loss risk, whereas variability risk should be taken into account in the enterprise-wide risk stress test. Similarly, it was requested that the purpose of holding additional capital in respect of an EV calculation be clarified. EV metrics capture the change in the market value of the portfolio under the specified rate shocks. In business-as-usual conditions, this change in market value will never be fully realised, as the position is normally held to maturity and pulls to	The reference to the revision of the dividend policy is in line with the BCBS Standards and allows for business risk to be taken into consideration. This instrument also allows to make the link between the EVE and NII. The variability needs to be taken into account, for example when the NII variability of the institution is too high, which might require the adaptation of the dividend policy or the reduction of business operations. To align the wording with the BCBS Standards, and to clarify the meaning, the reference to the dividend distribution has been amended to refer to the 'curtailing of the normal dividend distribution'.	Paragraph 30(e) has been amended as follows: Institutions with a high level of IRRBB that could, under a plausible range of market scenarios, result in losses, in **~~the revision of the dividend policy~~ curtailing normal dividend distribution**, or in a decrease in business operations should ensure that they have sufficient capital to withstand the adverse impact of these scenarios.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	par (i.e. has no P&L at maturity). It is only when this EV shock is accompanied by a change in behavioural assumptions, such as an increase in prepayment behaviour, or the bank fails, that this variability in income will ever be realised.		
Derivatives	One respondent considered that derivatives instruments are always linked to the hedged instrument and cannot be seen as a separated item for internal capital measurement, because this is not the rationale of the hedge.	The guidance for banks to take into account the expected cost of hedging open positions in the capital adequacy assessments for IRRBB refers not to all hedging, but to that which is intended to take advantage of internal expectations of the future level of interest rates.	No changes made
Other	A few respondents asked for clarification of the difference between paragraphs 30(b) and 30(e), and clarification of paragraphs 30(d) and 30(e).	The elements in paragraphs 30(a) to (e) are all linked, which explains the partial overlaps between the different elements.	No changes made

Governance

Question 6.

Are the guidelines in section 4.3 regarding the governance sufficiently clear? If not, please provide concrete suggestions and justify your answer.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Derivatives **Derivatives**	Some respondents questioned the guidance for a dedicated set of risk limits to be developed to monitor the evolution of hedging strategies that rely on instruments such as derivatives, and to control mark-to-market risks in instruments that are accounted for at market value. Since all derivatives are accounted for at market value, this would require putting limits on derivatives that are used to mitigate IRRBB. These instruments are part of the integral IRRBB position, and should be measured and monitored as an integral part of it. The objective of separate measurement is unclear, and the supervisory framework should not discourage risk mitigation using hedging. If the intent is to make sure that other dimensions of risks relating to derivatives are captured (e.g. liquidity risk arising from collateralised derivatives and counterparty credit risk), a link should be made to how these dimensions are dealt with in other/existing regulatory requirements to avoid double-counting. Another respondent requested further clarification on paragraphs 43(c) and 44 regarding the limits relating to hedging strategies involving derivatives. In the respondent's view, the limits should be applied to the mismatch between the	The EBA observes that the provision on the development of dedicated risk limits to monitor the evolution of hedging strategies has been interpreted differently from what was intended. The comments received suggest that the rule has been interpreted in an excessively strict sense, in that the presence of limits may hinder hedging, whereas the focus of the rule was to make sure the management is aware of the size of the exposure and related second-order risks. The EBA has therefore amended the guidelines, replacing the provision on risk limits for hedging strategies with the guidance to monitor the evolution of hedging strategies. The main message of this paragraph is that an institution should have a clear policy on how it plans to address volatility in EV and NII in case some hedges turn out to be ineffective as a result of changed market conditions. The aim of paragraph 43(c) is not to contradict the accounting perspective, but to prompt banks to reflect upon potential drivers of hedge ineffectiveness and the consequences on their IRRBB. Paragraph 44 does not prescribe that the positions need to be immediately scaled down if the limits are reached.	Paragraph 44(f) has been removed: ~~A dedicated set of **risk limits** should be developed to monitor the evolution of hedging strategies that rely on instruments such as derivatives, and to control mark-to-market risks in instruments that are accounted for at market value;~~ The paragraph has been replaced by the newly added paragraph 45 which reads: A **framework** should be in place to monitor the evolution of hedging strategies that rely on instruments such as derivatives, and to control mark-to-market risks in instruments that are accounted for at market value.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	adjusted profile and the current hedge in order to minimise the institution's risk exposure, and not just to the hedges, as the wording suggests. A loss of value could also occur because the take-up of a product is different from expected. Furthermore, the accounting and risk perspectives seem to be mingled together. The future ineffectiveness of any hedge accounting relationship results from potential larger differences between the actual and the assumed interest rates, and making reasonable assumptions in this respect is not possible.		
Risk appetite	As to the governance, the institutions are requested to express their risk appetite for IRRBB in terms of the maximum acceptable short-term and long-term impact of fluctuating interest rates on both earnings and economic value, and to reflect all this in limits. Given that an appropriate definition of the short-term and long-term horizons is not straightforward, and that, when assessing the impacts on earnings and on economic value, different time horizons are usually applied, it is suggested that the reference to the short-term and long-term horizons be deleted. In addition, the requirement to express the risk appetite in terms of maximum acceptable impact of fluctuating interest rates is perceived as	The EBA agrees with the comment and has amended the guidance for institutions to express their risk appetite for IRRBB in terms of maximum acceptable short-term and long-term impact of fluctuating interest rates by removing the reference to 'maximum short- and long-term'. The EBA acknowledges the comment with regard to the prescription for credit institutions to determine their risk appetite in relation to each of the sub-types of IRRBB. In view of the proportionate application of the guidelines, and seeing that not all of the sub-types of IRRBB are equally material for all institutions, the provision to determine risk limits per risk type has been removed. In line with the	Paragraph 33 has been amended to remove the provision for institutions to express their IRRBB risk appetite in terms of maximum acceptable short-and long-term impact: The institution's risk appetite for IRRBB should be expressed in terms of the ~~**maximum**~~ acceptable ~~**short term and long term**~~ impact of fluctuating interest rates on both earnings and economic value and should be reflected in limits. Institutions with significant exposures to gap risk, basis risk or option risk should determine their risk appetite in relation to each of these material sub-types of IRRBB. Paragraph 44(d) has been amended to read:

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	overly prescriptive, and the determination of the risk appetite in relation to each of the sub-types of IRRBB as neither relevant nor efficient. Moreover, distinguishing the risk appetite for each sub-type of IRRBB would make it unnecessarily difficult for executive committees and supervisory boards to assess and validate institutions' risk appetite framework, as it would rely on too many technical assumptions.	BCBS Standards, institutions with significant exposures to gap risk, basis risk or option risk are still requested to determine their risk appetite in relation to each of these material sub-types of IRRBB.	(d) Depending on the nature of an institution's activities and business model, sub-limits may also be identified for individual business units, portfolios, instrument types, specific instruments **or material sub-types of IRRBB risks such as gap risk, basis risk and option risk**. Paragraph 44 (e) has been deleted.
'Riding the yield curve'	A few respondents suggested removing the reference to 'riding the yield curve', as it appears to indicate a bias towards banks whose management of non-trading interest rate risk consists in funding assets with a comparatively long repricing period with liabilities with a comparatively short repricing period as a business model. Respondents pointed out that it is likely that few if any banks today leave their balance sheets systematically unhedged in this way as a business model and, if they do, it is captured as gap risk.	The EBA notes the comment but wishes to retain the expression 'riding the yield curve' since it is still valid and being applied by institutions.	No changes made
Integration of internal governance arrangements on a	One respondent asked for clarification on whether or not consolidated entities will be required to follow the group policy, even when the business model and client	The EBA notes the comment and wishes to explain that the provision requires institutions to ensure that internal governance arrangements and processes	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
consolidated and a sub-consolidated basis	profile of these entities differ thoroughly from those of the parent company.	for the management of IRRBB are consistent and well integrated on a consolidated and a sub-consolidated basis. This does not mean that the arrangements and processes should be identical.	
Risk management responsibilities	A few respondents indicated that the responsibilities outlined for the management body seem to be formulated in a rather ambitious way. For example, treasury or capital markets functions of banks will be continuously engaged in IRRBB hedging on the basis of delegated authority and may also have discretion to run IRRBB positions. It is neither practicable to define a suitable framework for this in advance nor possible to involve the management body in these decisions in a timely manner. As a general consideration on IT systems and data quality, respondents stress that the requirements for IT systems should not be identical for all institutions, but should only cover the relevant material risks for the institutions in question. Whereas the separation of risk managers and risk takers was deemed appropriate, it was questioned whether the term ‘risk taker’ should not be replaced by ‘risk mitigation function’, since interest rate in the banking book originates from	The EBA notes the comments but intends to keep the wording of the risk management section unchanged, as it is aligned with the BCBS Standards. The EBA wishes to clarify that ‘major’ hedging or risk-taking initiatives refer to the strategic decisions on hedging including limits on hedging and strategic risk taking, and the wording is in line with the BCBS Standards. Whereas there is the possibility of delegation via the framework, the management body should at least be made aware of the decision.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	customer exposures, which are then passed to the ALM function for management.		
Internal reporting	One respondent pointed out that the in-depth requirements for internal reporting are too detailed, complex and comprehensive, and referred to BCBS 239, where the reporting obligations are already addressed. Because of the complexity of the overall topic of IRRBB and the different business models, the institutions should have more room to decide the form in which a breakdown of risks for the management body makes sense.	The EBA notes the comment on BCBS 239 and wishes to clarify that these guidelines do not go beyond BCBS 239, and are in line with the current EBA IRRBB Guidelines. With regard to the application of paragraphs 54(b) and 54(e), and in line with the current IRRBB Guidelines, the EBA wishes to clarify that the IT systems should be sufficiently granular to be able to record all transactions and measure the contributions of individual transactions to the overall exposure. However, there is no real-time detailed reporting required at transaction level with regard to the impact of IRRBB. As indicated in paragraph 65, the internal reports should be provided to the management body or its delegates with information at relevant levels of aggregation (by consolidation level and currency). With regard to the requirement to ensure consistency between the data used to measure earnings risk and those used for financial planning, it is important to note that 'consistent' here does not mean 'identical', but that the same underlying data should be shared.	No changes made
Internal reporting	Several respondents requested clarification that the requirements to 'be capable of fully and clearly record all transactions' and to 'enable the institutions to fully measure, assess and monitor the contribution of individual transactions to their overall exposure' apply at individual institution level, and do not apply at consolidated level. Each institution should be free to consider how to manage data on a line-by-line basis or an aggregated basis. One respondent highlighted that the requirement to ensure that data (and, by implication, assumptions) used to		

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	measure earnings risk is consistent with that used for financial planning could be a problem, as the purposes of risk management and finance are different. Respondents also deemed that the requirement to compare historical stress analyses against the current performance (at least for earnings risk) is unnecessarily time-consuming and not expedient. In contrast to economic value risk, earnings are stressed only over a certain period. In order to obtain meaningful back-testing, both the historical scenario and the corresponding balance sheet change would thus have to be perfectly modelled.	The reporting on the impact of interest rate derivatives on the measurement of IRRBB in terms of EV and NII would ensure awareness at all levels of the bank's governance structure of the impact of interest rates derivatives on the overall risk metrics. It would also allow management to get a comprehensive view of how the overall EVE and NII position is structured. The proportionality principle applies to the scope of the reporting on the models used.	
Internal reporting	The obligation to always report the proportion of interest rate derivatives and Level 3 instruments in the regular reports to the management body (regardless of the importance of these positions or how stable their proportion is) is not deemed appropriate. Any separate treatment of derivatives in the banking book seems to misunderstand the impact of their role: hedging the IRRBB exposure. The treatment of derivatives should therefore be aligned with other exposures in the banking book, such as mortgage loans.		

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	Whereas it is important to understand the models used, their strengths and weaknesses, their consistency with other methodologies used and the assumptions and their consequences, adequate consideration should be given to the principle of proportionality, especially with regard to the understanding of the analytics.		
Other	Some respondents requested more specification on the scope of model validations, and proposed focusing on client behaviour models and including an objective materiality criterion such as the criterion for currencies in the supervisory outlier test. One respondent requested clarification of the term 'pipeline transaction'. One respondent noted the use of the term 'risk appetite' where the 2015 EBA IRRBB Guidelines used 'risk tolerance'. It would be helpful to understand whether this is mainly a terminological change or a change of substance, given that appetite typically has a more formal meaning than tolerance. Respondents pointed out that the term 'management body', depending on the context, can be interpreted to mean either	The EBA notes the comments with regard to the specification on the scope of model validation and wishes to clarify that a focus solely on client behaviour models would be too specific whereas the focus on model governance should be more general. The EBA welcomes the comment with regard to the concept of 'pipeline transaction/exposure'. The term has now been defined in paragraph 47(f). The EBA wishes to clarify that the term 'risk appetite' is used in line with the terminology used in principle 3 of the BCBS Standards referring to the aggregated level and types of IRRBB exposures that a bank will accept, or avoid, in order to achieve its business objectives. The term 'management body' is used in line with the EBA Guidelines on internal governance. Similarly to the EBA Guidelines on internal governance, the	The definition of 'pipeline transaction' has been included in the footnote to paragraph 47(f): Pipeline exposures (e.g. where a loan has been agreed and the customer can choose whether to draw down or not) effectively provide the customer with an option that will most likely be exercised when market conditions least suit the institution (negative convexity). Management of pipeline exposures relies on accurate data on applications received, and modelling of expected drawdowns.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	the board of directors or the executive management committee in the Anglo-Saxon model. This differs from the BCBS Standards, which use the term 'governing body' when addressing matters that it believes should go to the board of directors.	IRRBB Guidelines apply to all institutions regardless of their governance structures (unitary board, dual board or other structure), without advocating or preferring any specific structure.	
Question 7.			
Are the guidelines in section 4.4 regarding the measurement sufficiently clear? If not, please provide concrete suggestions and justify your answer.			
Measurement			
General approach to IRRBB measurement	A few respondents were concerned about the statement that commercial margins should be included in earnings measures, as this would be burdensome, especially for small firms. The provision for institutions to measure and monitor the IRRBB of their banking book interest rate derivatives was not deemed appropriate, as it would not make sense to consider the interest rate risk of derivatives in isolation from what they are hedging. Further clarification was requested about the term 'transparent methodology' in paragraph 82. Some respondents raised comments on the provision for supervisory outlier tests to be fully integrated in the internal	The EBA notes the comment and wishes to clarify that the guidelines include the provision for commercial margins to be included in earnings measures, since this option is conceptually more correct. With regard to the provision for institutions to measure and monitor the IRRBB of their banking book interest rate derivatives in the light of the overall IRRBB measurement, the purpose is to look at the impact of derivatives, which is also required for internal reporting purposes. Proportionality has been made explicit in this paragraph by referring to the link to the relevance for the business model. The EBA wishes to clarify that a 'transparent' methodology for the identification of the risk-free rate and the	Paragraph 81 has been amended as follows: institutions should measure and monitor (i) the overall impact of key modelling assumptions on the measurement of IRRBB in terms of both economic value measures and earnings measures, and (ii) the IRRBB of their banking book interest rate derivatives **where relevant for the business model**. Paragraph 82 has been amended as follows: ~~Institutions should use a transparent methodology for the identification of the risk free rate and the treatment of spread components applied consistently across all interest rate sensitive instruments and all business units.~~ If commercial margins and other spread components are excluded from economic value measures, institutions should (i) use a transparent methodology for

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	framework for the management of IRRBB, as outlier tests should not drive IRRBB management.	treatment of spread components refers to the fact that the methodology needs to be clearly documented with an appropriate justification. Paragraph 82 has been amended to clarify this. The purpose of the provision for supervisory outlier tests to be integrated in the internal framework for the management of IRRBB aims to encourage institutions to use the supervisory outlier test as a complementary tool for measuring IRRBB exposures, and not for the outlier test to drive the institution's IRRBB management, nor for institutions to rely solely on the calculation and the outcomes of the supervisory outlier test.	identifying the risk-free rate at inception of each instrument; and (ii) use a methodology that is applied consistently across all interest rate sensitive instruments and all business units.
Methods for measuring IRRBB	It was proposed to use an alternative definition of basis risk to the one proposed in Table 1, which refers to 'timing differences'. One respondent deemed the reference to a simple run-off balance sheet in Annex I to be unnecessary, as it is not practical to implement, nor is it mentioned in Annex II. Another respondent requested clarification that firms can use their own methods as an alternative to those in Annex I.	The EBA agrees that basis risk is a more general and broader concept than what would appear from the example in Table 1, which is only illustrative. The reference to a simple run-off balance sheet in Annex I is also only illustrative even though it should be used as an assumption for the calculation of the EVE change for the purpose of the supervisory outlier test. The EBA acknowledges that firms can use their own measurement methods as an	Paragraph 86 has been amended as follows: Institutions should not rely on a single measure of risk but should instead use the range of quantitative tools and models that corresponds to their specific risk exposure. To that end, institutions should consider ~~at least~~ the application of the methods listed in Annex I **but not limit themselves to those**, to ensure that various aspects of interest rate risk are captured adequately.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	The line between behavioural and automatic options was deemed to be more blurred than the table suggests and respondents proposed limiting automatic options to caps and floors and not include swaptions or prepayment options embedded in wholesale assets, as they are very often determined by behavioural factors, and they also observed that behavioural options apply to wholesale as well as retail banking.	alternative to those listed in Annex I, and has made this more explicit in the wording.	
Shock scenarios	A few respondents requested more proportionality to be included in the number and range of scenarios for ongoing management, with fewer but relevant scenarios. It was also highlighted that basis risk is not relevant to all institutions. One respondent asked how the maximum average 5-year duration should be applied when firms are doing conditional cash flow modelling and if the maximum applies under every scenario.	The principle of proportionality as laid out in section 4.1 should also be applied to the number and range of scenarios to be included for the ongoing IRRBB management. The EBA agrees that sub-types of IRRBB should be taken into account only as far as they are material, in line with the proportionality principle outlined in paragraph 19. With regard to the application of the maximum average 5-year duration when firms are doing conditional cash flow modelling, the EBA wishes to clarify that there is value in a scenario-specific approach, but the intent for the supervisory outlier test is to maximise the comparability of the results.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Interest rate stress scenarios	One respondent indicated that the calculation of second-round effects in enterprise-wide stress tests is not feasible and should be qualified ('major second-round effects'). Another respondent stated it considered the six scenarios to be the 'stresses' and would want more guidance if firms are expected to consider stresses beyond the six scenarios.	The EBA agrees with the comment about proportionality, and has added the qualification of 'material' to the second-round effects that should be computed in enterprise-wide stress tests. The six scenarios for the additional outlier test are deemed to be shock scenarios, not stress scenarios as such.	Paragraph 99 has been amended to indicate that any **material** second-round effects should be computed in enterprise-wide stress tests.
Measurement assumptions	One respondent proposed that the provision for institutions to review significant measurement assumptions 'at least annually' be amended to 'regularly'. A few respondents suggested removing the provision for institutions to add 'a margin of conservatism' for the modelling of key behavioural assumptions, as there is no predetermined direction in which to be prudent. One respondent requested clarification on whether competitors' activities should be included in models or it is sufficient to include them in stress tests. Another respondent pointed out that it is not practicable to model all the parameters in paragraph 104 and the focus should be on the most important parameters. The respondent suggested using the word 'speed' instead of	The EBA notes the comments, and wishes to clarify that the significant measurement assumptions need to be reviewed at least annually, since it concerns the 'significant' measurement assumptions, and the frequency is also linked to the ICAAP cycle. For the 'general' review of model assumptions, a 'regular' review is requested. The requirement to add a 'margin of conservatism' when modelling the key behavioural assumptions has been removed, as it could lead to overhedging. However, institutions should address the uncertainty and use prudent hypotheses. The EBA welcomes the comment about the competitor's activities and removed the guidance for institutions to take into account competitors' activities in assessing the implications of optionality, as this	Paragraph 106(a) has been amended as follows: [In assessing the implications of optionality, institutions should take into account:] (a) the potential impact on current and future loan prepayment speeds arising from the interest rate scenario, underlying economic environment and contractual features.~~, and competitor's activities.~~ Paragraph 107(c) has been amended as follows: [Institutions should:] ensure that modelling of key behavioural assumptions is justifiable in relation to the underlying historical data, and based on prudent hypotheses.~~; a margin of conservatism should be used where there are uncertainties, especially when actual experience differs from past assumptions and expectations.~~

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	‘elasticity’, as elasticity has a precise statistical meaning. Several respondents raised concerns about the definition of ‘core’ balances and would prefer to follow the BCBS Standards, which consider the concept as a book-level one, not an account-level one. The respondents proposed revising the definition of ‘core’ and ‘transient’ balances on transaction accounts to offer more flexibility to credit institutions. In addition, the current definition seems inconsistent with the definition of ‘stable/operational’ and ‘less stable/non-operational’ deposits applicable to liquidity requirements. One respondent thought the consideration of the constraints on repricing should apply to assets as well as liabilities. Clarification was requested on what ‘without any specific repricing dates’ means, and whether or not ‘non-maturity deposits’ are assumed to be deposits ‘without any specific repricing dates’.	would not make sense under a static balance sheet. The EBA welcomes the comment on the definition of core balances and has amended the wording to align it with the definition of ‘core balances’ as included in the BCBS Standards. Core balances are those balances that remain stable and interest rate insensitive, even under significant changes in the interest rate environment. The EBA wishes to clarify that point (a) of paragraph 106 refers to loan prepayments, while points (b) and (c) are related to early redemption in term deposits. Furthermore, the reference to low cost balances has been replaced with ‘core and other modelled’ balances. The reference to the ‘elasticity’ of adjustment of product rates refers to the price elasticity of products where it is relevant to market rates.	Paragraph 108 has been amended to align the definition of core balances with the BCBS definition.

Question 8.

Do you consider the comparison between EV metrics calculated using contractual terms for NMDs with the EV metrics calculated with behavioural modelled assumptions sensible and practical? Please justify your answer.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Comparison between EV metrics calculated using contractual terms for NMDs with EV metrics calculated with behavioural modelled assumptions	A very small minority of respondents supported the approach of the comparison between EV metrics calculated using contractual terms for NMDs and EV metrics calculated with behavioural modelled assumptions, arguing that it provides a better understanding of the total risk generated by different strategies and allows proper limits to be set. One respondent pointed out that the best assessment of interest rate exposure, as expressed by behavioural models for NMDs, should be the basis for the internal capital assessment and the national regulator's review thereof. Naturally, the assumptions and their impact on interest rate risk should be evaluated and tested. To ensure a level playing field for European banks, the discussion should revolve around the validity of assumptions and not the rationale for using – or not using – behavioural models.	The EBA notes the comments and wishes to clarify that the proposed comparison is aimed at easing a separate understanding of the interest rate risk borne by the bank as a result of its contractual commitments versus expected client behaviour, which is by definition uncertain. There is a need to ensure awareness, at all levels of the bank's governance structure, about the sensitivity of internal metrics to key parametric assumptions, and to use an economic metric that measures the sensitivity and uncertainties of behavioural assumptions. This requirement is already included in the current IRRBB Guidelines.	No changes made
Comparison between EV metrics calculated using contractual terms for NMDs with EV metrics calculated	Most of the criticism focused on the fact that the contractual terms are deemed not to reflect economic reality and the proposed measure would disregard the relationship between the models and the actual behaviour of the clients. The measure is deemed to ignore the quality	The EBA wishes to clarify that what is expected is that banks break down their EVE results into different components, including a contractual one related to banking business, a contractual one related to hedging and other interest rate	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
with behavioural modelled assumptions	of the model and is considered to be too simplistic to allow any conclusions to be drawn. The comparison between EV metrics calculated using contractual terms for NMDs and the EV metrics calculated with behavioural assumptions is deemed to provide limited insight into the amount of model risk.	derivatives, and finally a modelled component. This could ease the separate understanding of interest rate risk borne by the bank as a result of its contractual commitments versus expected client behaviour, which is uncertain by definition. There is a need to ensure awareness, at all levels of the bank's governance structure, about the sensitivity of internal metrics to key parametric assumptions, and to use an economic metric that measures the sensitivity and uncertainties of behavioural assumptions. It can also help understand the evolution over time of the risk profile of the bank with respect to different sources of risk.	
Disclosure	A few respondents advised against disclosure of the metric, since isolating this number, without considering how the risk is hedged, might be misleading.	The EBA wishes to clarify that there is no requirement to report the results of the comparison between EV metrics calculated for NMDs and EV metrics calculated with behavioural modelled assumptions to the competent authorities, nor is there a requirement for disclosure of the results. Disclosures are outside the scope of these guidelines, as disclosure requirements are expected to be developed under the regulatory technical standards planned to be mandated under the revised CRD/CRR framework.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Sensitivity analysis	A few respondents suggested that a better measure of model risk would be a sensitivity analysis with respect to model assumptions (e.g. changing the duration of NMDs by 0.1Y).	The EBA notes the comment and wishes to clarify that a suggestion on using sensitivities is already included in the text of the guidelines. As NMD models represent one among several behavioural models, focusing on analysing only the sensitivity of NMDs would give merely a partial picture of the model risk.	No changes made
Supervisory outlier test			
General comments			
Quantitative impact study	Several respondents pointed out that the additional supervisory outlier test introduced as an early warning indicator should be subject to a quantitative impact study (QIS). While larger European banks participated in regular impact studies, the 15% threshold transposed from the BCBS Standards was calibrated for only large and internationally active banks. The threshold was tested neither on the individual entity level nor for smaller institutions. Respondents requested that the results of the QIS inform the decision about whether or not the additional outlier test should apply to individual institutions, in addition	The EBA wishes to clarify that the additional supervisory outlier test (based on the six scenarios set out in Annex III and a 15% Tier 1 threshold) will act as an early warning signal that will lead to a supervisory dialogue but to which no supervisory measures are linked. A quantitative impact study is planned to be organised in the light of the introduction of this new outlier test to replace the current outlier test in the Level 1 text (Capital Requirements Directive), and any related technical standards. The EBA wishes to clarify that the scope of the guidelines includes institutions as defined in point 3 of Article 4(1) of the CRR,	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	to the application at consolidated level, and/or whether or not additional proportionality measures should be implemented.	covering both credit institutions and investment firms. For the quantitative impact study to be organised in the light of the introduction of the new outlier test, it is planned to invite also small- and medium-sized institutions to participate, in order to test the impact at the level of different-sized EU institutions at consolidated and individual levels.	
Supervisory outlier test as warning indicator	A few respondents indicated that any supervisory outlier test should only act as a warning indicator that triggers a supervisory dialogue, without any automatic supervisory measures or increased capital surcharges. One respondent proposed that the text also make explicit that the institution's overall situation must be taken into consideration in the decision on supervisory measures.	The EBA wishes to clarify that indeed the additional supervisory outlier test included in the guidelines (based on the six scenarios set out in Annex III and a 15% Tier 1 threshold) will act as an early warning signal that will not trigger any supervisory measures, but will lead to a supervisory dialogue. The supervisory outlier test which is included in the Level 1 text, Article 98(5) of the Capital Requirements Directive, indicates that measures shall be required at least in the case of institutions whose economic value declines by more than 20% of their own funds as a result of a sudden and unexpected change in interest rates of 200 bps. The CRD/CRR framework is currently under revision.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Question 9. **Are the guidelines in section 4.5 regarding the supervisory outlier test sufficiently clear? If not, please provide concrete suggestions and justify your answer.**			
Scope of instruments	A few respondents requested clarification about the scope and application of 'small trading book business' items to be included in the supervisory outlier test unless their interest rate risk is captured in another risk measure.	The small trading book items are only to be included in the calculation of the supervisory outlier test for those institutions taking advantage of the derogation granted in Article 94 of the CRR.	No changes made
Scope of instruments	A few respondents requested clarification that future credit losses in cash flows should be reflected in the supervisory outlier test.	Whereas considering future credit losses is technically justified, it cannot be done in parallel with the exclusion of margins. Future credit losses should be treated similarly to general provisions.	No changes made
Scope of instruments	One respondent asked for clarification about the inclusion of loan commitments.	In general, loan commitments are off-balance-sheet items and should be included in the calculation of the supervisory outlier test because they are interest rate instruments. Proportionality needs to be taken into account.	No changes made
Scope of instruments	A few respondents proposed allowing banks to use their IMS for the treatment of NPEs and their provisions for the supervisory outlier test.	Institutions are required to include expected cash flows of NPEs (net of provisions) as general interest rate sensitive instruments whose modelling should reflect expected cash flows and their timing. This aims to increase the	The guidance for the inclusion of the NPEs for the calculation of the outlier test in paragraph 115(g) has been amended as follows: Institutions **with an NPE ratio of 2% or more** should include NPEs as general interest rate sensitive instruments whose modelling

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
		comparability of the outcomes of the supervisory outlier test. A materiality threshold of 2% NPE ratio (non-performing debt securities and loans and advances/total gross debt securities and loans and advances) has been included in the guidelines. The materiality threshold will apply per institution for the purpose of the outlier test. Whereas the materiality threshold should be calculated using the gross NPE ratio, for the purpose of the calculation of the supervisory outlier test the NPEs net of provisions should be included. Institutions will not be required to include NPEs in the calculation for the purpose of the supervisory outlier test if the NPE ratio at institution level is below 2%.	should reflect expected cash flows and their timing. NPEs should be included net of provisions.
Scope of instruments	One respondent asked for the treatment of AT1 capital, which is a perpetual hybrid instrument and consists of perpetual private issued loans with an annual non-cumulative discretionary interest payment to be clarified. One respondent proposed measuring the EVE impact for the supervisory outlier test against total capital (including subordinated debt and Tier 2 capital) because of its gone-concern nature.	When calculating the change in EVE for the supervisory outlier test, institutions need to apply the criteria as outlined in paragraph 115 for assessing which instruments need to be included. Institutions should take into account all positions from interest rate sensitive instruments that are not deducted from own funds. All CET1 instruments and other perpetual own funds without any call dates should be excluded. Therefore, AT1 capital	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
		instruments without any call dates should be excluded.	
Scope of instruments	One respondent requested clarification about the inclusion of Tier 2 instruments in the calculation of the standard EVE outlier test.	Tier 2 instruments should be included as interest rate sensitive instruments as long as they are non-perpetual or even when they are perpetual if they have call dates.	No changes made
Scope of instruments	One respondent pointed out that Tier 1 can include an interest-bearing component and should be treated in the same way as all other interest-bearing instruments including Tier 2 instruments, referring to paragraph 115(c) (exclusion of CET1 instruments and other perpetual own funds without any call dates from the EVE calculation for the supervisory outlier test).	Institutions should apply the criteria as outlined in paragraph 115 to assess which instruments should be included in the calculation for the supervisory outlier test. For very specific instruments, we refer to the supervisory dialogue.	No changes made
Scope of instruments	One respondent requested that both outlier tests be based on own funds.	The EBA takes note of the request to base both the supervisory outlier tests on own funds. This approach has not been retained, since it would not be in line with the approach of the BCBS Standards.	No changes made
Scope of instruments	It was pointed out that the design of the supervisory outlier test puts at a disadvantage banks with high hidden reserves.	The EBA notes the remark that the design of the supervisory outlier test puts a disadvantage on banks with high hidden reserves, and wishes to clarify that the approach taken is in line with the approach of the BCBS Standards.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Scope of instruments	A few respondents requested clarification of the meaning of 'repricing of principal'.	The EBA wishes to clarify that the cash flows from interest rate sensitive instruments for the supervisory outlier test should include any repayment of principal (e.g. at contractual maturity), any repricing of principal and any interest payments. In line with the BCBS Standards, repricing is said to occur at the earliest date at which either the bank or its counterparty is entitled to unilaterally change the interest rate, or at which the rate on a floating instrument changes automatically in response to a change in an external benchmark.	No changes made
Yield curve	Clarification has been requested that the 'appropriate' general 'risk-free' curve refers to the discounting curve, and that banks could still adopt a multi-curve in their IMSs, to use different risk-free curves for discounting according to their IMSs depending on the instruments (e.g. financial derivatives and cash instruments).	The EBA notes the comment on the use of an appropriate risk-free curve for the calculation of the supervisory outlier test and wishes to refer to paragraph 115(n), which also gives an example of risk-free yield curves that could be applied (e.g. swap rate curves).	No changes made
Yield curve	A few respondents requested permission to use several risk-free curves (multi-curve approach) allowing for discounting using several yield curves per currency.	The EBA welcomes the request to allow the use of a multi-curve approach that would enable institutions to discount using a risk-free yield curve per currency and agrees it is technically justified and appropriate for use in the internal models. However, for the supervisory outlier test a facilitated	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
		approach is required which allows comparability of the results; therefore, the EBA opted to retain one general 'risk-free' yield curve per currency.	
Yield curve	A few respondents requested that the interest rate floor be applied at different curves retaining the basis between the curves, and that discounting using several yield curves be permitted.	The EBA notes the request for the application of the interest rate floor at different curves retaining the basis between the curves, and for permission to discount using several yield curves. Whereas both approaches can be used for the internal models, a simpler method should be used by institutions for the calculation of the supervisory outlier test to facilitate traceability and comparability.	No changes made
Yield curve	The standardised instantaneous interest rate shock scenarios were perceived as being extreme in nature and arguably highly improbable, representing a very significant increase in the severity of the supervisory outlier test. One respondent referred to an analysis of the values calculated for the parallel, short, and long interest rate shocks for US dollars in addition to the outlined assumptions. The findings suggested that over the last 30 years there has not been an occurrence over a 1-month period in which US dollar interest rates have moved as aggressively as the EBA- (and BCBS-) proposed scenarios suggest. The respondent	The EBA notes the comments with regard to the proposed interest rate shock scenarios and would like to clarify that these scenarios have been retained to allow a harmonised approach in line with the BCBS Standards.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	pointed out that using the 1-month time horizon as a proxy for an instantaneous shock to measure EVE is a restrictive approach to calibrating interest rate scenarios, and proposed applying the average change in rates over the worst-case 1-year period to determine a low-probability EVE scenario. Another respondent proposed that the EU shocks to be set at a level calibrated by local regulators, given the lack of economic cycle synchronicity across jurisdictions.		
Yield curve	One respondent requested more guidance on the choice of an appropriate risk-free curve.	The EBA wishes to refer to paragraph 115(n) on the use of an appropriate risk-free curve for the calculation of the supervisory outlier test.	No changes made
NMDs	Clarification was requested that the 5-year cap should be applied at overall portfolio level of non-maturity deposits per currency. One respondent asked to confirm that these guidelines would prevent any (more constraining) deviations from competent authorities on this topic.	The 5-year cap should be applied at overall portfolio level for non-maturity deposits per currency. With regard to the application of the guidelines, the EBA wishes to clarify that these recommendations provide common EU-wide guidance for both institutions and supervisors and are expected to be implemented by EU competent authorities under the ‘comply or explain’ principle.	No changes made
NMDs	One respondent asked for a clearer definition of core deposits.	The EBA wishes to clarify that the term ‘core deposits’ is used in accordance with the BCBS Standards referring to the	Paragraph 108 has been amended to align the definition of core balances with the BCBS definition.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
		proportion of stable deposits that do not reprice. The wording has been amended accordingly.	
NMDs	The 5-year cap on NMDs is seen as unnecessary gold-plating of the BCBS Standards, and respondents requested permission for IMSs to be used for modelling NMDs. A few respondents indicated that the results of the supervisory outlier test are comparable only if there are no standardised requirements on NMDs.	The EBA wishes to clarify that the IMS can be used for modelling NMDs. The 5-year cap is applicable for only the supervisory outlier test, in line with the current EBA IRRBB Guidelines.	No changes made
NMDs	A few respondents requested clarification of whether or not the NMD cap refers to the volume-weighted average.	The EBA wishes to clarify that the NMD cap for the supervisory outlier test refers to a volume-weighted 5-year cap.	No changes made
NMDs	One respondent asked if interest rate-specific floors apply to only retail customers, as there seems to be an inconsistency between the background section and the section on the supervisory outlier test in this respect.	The EBA welcomes the comment, and has amended paragraph 17(h) of the background section to remove the reference to retail customers in order to align this paragraph with paragraph 115(h) of the section on the supervisory outlier test.	Paragraph 17(h) of the background section has been amended as follows: [When calculating the supervisory outlier test] Instrument-specific interest rate floors, ~~especially for retail deposits,~~ should be considered.
NMDs	A few respondents indicated that the 5-year cap should apply to 'non-maturing deposits' (and not to 'non-repricing deposits'). The two notions are not the same ('non-maturity deposits' can have repricing dates, and 'non-repricing	The EBA wishes to clarify that, in the context of the supervisory outlier test, the 5-year cap applies to 'non-maturing deposits'.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	deposits' are not necessarily non-maturity deposits).		
NMDs	Clarification is requested that the 5-year cap refers to the average and not to the highest assumed repricing date.	The EBA wishes to clarify that, in the context of the supervisory outlier test, the 5-year cap applies to the average repricing date.	No changes made
NMDs	A few respondents asked for clarification about the treatment of non-maturity deposits from financial institutions, in particular whether or not it will include deposits deemed operational, for example deposits generated via custody/clearing/cash management. A few respondents indicated that they did not support the exclusion of financial institutions from behavioural modelling. One respondent asked for the definition of deposits from financial institutions, and if operational deposits of financial institutions are allowed to be modelled.	The EBA notes the comments and wishes to clarify that deposits from financial institutions should not be subject to modelling, i.e. they should mature immediately. Financial institutions are defined as in point (26) of Article 4(1) of Regulation (EU) No 575/2013.	No changes made
Other remarks	Confirmation was requested that any breaches of the threshold for the additional outlier test will not lead to supervisory measures. Whereas it is mentioned that there should be no automatic supervisory measures from a breach of the threshold, it is not	The EBA wishes to clarify that indeed the additional supervisory outlier test included in the guidelines (based on the six scenarios as set out in Annex III and a 15% Tier 1 threshold) will act as an early warning signal that will not trigger any supervisory measures, but will lead to a supervisory dialogue.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	clear if this is an interim or a permanent approach. In addition, the six interest rate shocks to use for the supervisory outlier test are deemed as unnecessarily burdensome by some respondents not adding value compared to the current two scenarios (parallel up/down).	The current outlier test with a 20% threshold in terms of own funds is retained in the guidelines in view of its applicability as a legally binding threshold under the current CRD IV. To allow institutions to prepare for the implementation of the new outlier test with a 15% threshold in terms of Tier 1 capital in CRD V (in line with the BCBS Standards), this additional outlier test is introduced as an 'early warning signal' with no supervisory measures linked to it. The EBA notes the comments with regard to the proposed interest rate shock scenarios and would like to clarify that these scenarios have been retained to allow a harmonised approach in line with the BCBS Standards.	
Other remarks	One respondent indicated that the results of the supervisory outlier test should not be subject to public disclosure and should remain a confidential supervisory tool as part of the ICAAP discussion. Another respondent indicated that it was not in favour of the coexistence of two prudential measures in view of the ongoing legislative process. It was also indicated that the implementation of the quantitative components of the BCBS Standards, such	The EBA wishes to clarify that the results of the additional supervisory outlier test will not be subject to public disclosure. Disclosure requirements are outside the scope of these guidelines. The disclosure requirements of the BCBS Standards will be implemented in EU regulation through implementing technical standards mandated by CRD V. The new outlier test with the 15% threshold will be implemented in EU legislation through the revised CRD. Prior to the implementation	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	as the supervisory outlier test, should be performed through the revised CRD/CRR framework.	of the new threshold, a QIS is expected to be organised to assess its impact.	
Other remarks	One respondent perceived an inconsistency between nominator (market value) and denominator (accounting measure) for the supervisory outlier test calculation.	The EBA notes the comment about the inconsistency between the nominator and denominator for the calculation of the supervisory outlier test, but has opted to align with the BCBS calculation to ensure harmonisation.	No changes made
Other remarks	One respondent pointed out that the two supervisory outlier tests do not trigger management actions.	The EBA wishes to clarify that indeed the additional supervisory outlier test included in the guidelines (based on the six scenarios as set out in Annex III and a 15% Tier 1 threshold) will act as an early warning signal that will not trigger any supervisory measures, but will lead to a supervisory dialogue. In the Level 1 text, Article 98(5) of the Capital Requirements Directive indicates that measures shall be required in relation to the supervisory outlier test at least in the case of institutions whose economic value declines by more than 20% of their own funds as a result of a sudden and unexpected change in interest rates of 200 bps. The Capital Requirements Directive and Requirements framework is currently under revision.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Other remarks	One respondent highlighted that the supervisory outlier test should not drive IRRBB management and hedging decisions.	The provision for supervisory outlier tests to be integrated in the internal framework for the management of IRRBB aims to encourage institutions to use the supervisory outlier test as a complementary tool for measuring IRRBB exposures, and not for the outlier test to drive the institution's IRRBB management, nor for institutions to rely solely on the calculation and the outcomes of the supervisory outlier test.	No changes made
Other remarks	It is requested that a QIS be launched to determine the scope and proportionality of the supervisory outlier test and to test the impact of the new outlier threshold.	A quantitative impact study is expected to be organised in the light of the introduction of the new outlier test to replace the current outlier test in the Level 1 text (Capital Requirements Directive), and any related technical standards.	No changes made
Other remarks	One respondent that local supervisors be prevented from being more restrictive than what is agreed at the European level (e.g. 5-year cap for NMDs).	The EBA welcomes the comment and wishes to clarify that these guidelines aim to provide common EU-wide guidance for both institutions and competent authorities, and they are expected to be implemented by the EU competent authorities under the 'comply or explain' principle.	No changes made
Other remarks	A few respondents indicated that behavioural assumptions that depend on	The EBA notes the comment and wishes to clarify that there is clear evidence (particularly for loan prepayments) that	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	interest rate scenarios are not appropriate.	customer behaviour depends on interest rates.	

Question 10.

Is the proportionality adequately reflected in the guidelines, in particular in relation to the transitional period for SREP category 3 and 4 institutions and the frequency of calculation for the additional outlier test under paragraph 114?

Proportionality for SREP category 3 and 4 institutions for additional supervisory outlier test	Most respondents requested the inclusion of more proportionality for the additional supervisory outlier test. While respondents acknowledged that there are fewer reporting obligations for smaller institutions, they requested additional qualitative and quantitative relief for smaller and less complex banks, such as some flexibility in terms of the frequency and complexity of calculations. The high complexity of the interest rate risk scenarios should be reduced depending on the size of banks, the complexity of balance sheet structure and/or their limited IRR exposures.	The EBA notes the comments on proportionality, and refers to paragraphs 19 and 20 of the general provisions setting out the proportionality that is to be applied throughout the guidelines. Both paragraphs have been amended to make the proportionality more explicit. The application of the guidelines should depend on the risk profile and complexity of the institution, as well as the level of exposure to IRRBB. In view of the comparability of the outcomes of the supervisory outlier test, it was not deemed appropriate to have different supervisory outlier tests for larger and smaller institutions; however, for a number of components of the supervisory outlier test, proportionality has been included. Flexibility is provided on the treatment of commercial margins, and a 2% materiality threshold has been added for the inclusion of NPEs in the calculation for the supervisory outlier test.	Paragraph 19 has been amended to include that institutions should identify their existing and prospective exposure to IRRBB **in a proportionate manner**, depending on the level, complexity and riskiness of the non-trading book positions. In paragraph 20, it has been specified that, based upon the assessment of their existing and prospective exposure to IRRBB, institutions should consider ~~all~~ elements and expectations stipulated ... and implement them in a way that is commensurate with existing and prospective exposure to IRRBB. The guidance for the inclusion of the NPEs for the calculation of the supervisory outlier test (paragraph 115(g)) has been amended as follows: Institutions **with an NPE ratio of 2% or more** should include NPEs as general interest rate sensitive instruments whose modelling should reflect expected cash flows and their timing. NPEs should be included net of provisions.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Proportionality for SREP category 3 and 4 institutions for additional supervisory outlier test	Respondents indicated that it would be helpful to clarify that category 3 institutions should perform the basis risk analysis only if their exposure to this risk is material (providing clear guidance on the materiality definition).	We assume that, as a general rule, all institutions shall conduct the basis risk analysis, if basis risk is relevant for the institution (independent from the SREP category). The complexity of calculations can vary depending on the level, complexity and riskiness of the non-trading book.	No changes made
Proportionality for SREP category 3 and 4 institutions for additional supervisory outlier test	Respondents requested clarification of the definition of small trading book business (in paragraph 115(b)), especially with regard to the application level of the guidelines.	The EBA wishes to clarify that the guidelines apply to institutions defined in point 3 of Article 4(1) of the CRR, covering both credit institutions and investment firms at the entity level. Those institutions taking advantage of the small trading book derogation granted in Article 94 of the CRR should include their small trading book items in the calculation of the supervisory outlier test.	No changes made
Proportionality for SREP category 3 and 4 institutions for additional supervisory outlier test	Respondents indicated that the new 15% threshold should apply to smaller banks that are not internationally active only after an impact study has been conducted. While they support the principle of the supervisory outlier test as a consistent, comparable measure, as proposed it is too complex for small, simple banks .	A quantitative impact study is expected to be organised in the light of the introduction of the new outlier test to replace the current outlier test in the Level 1 text (Capital Requirements Directive), and any related technical standards.	No changes made
Proportionality for SREP category 3 and 4 institutions for	A few respondents proposed aligning the supervisory outlier test to internal cash flow modelling. One respondent pointed	Banks may model the impact of expected credit losses on cash flows, addressing both expected defaults (which would lead	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
additional supervisory outlier test	out that it is unclear what is meant by 'repricing'. Principal is automatically re-measured when the interest rate risk cash flow is re-measured at overall bank level following the simulated interest rate shock.	to a shortening in the duration of cash flows) and the time it would take to recover the amounts due (a lengthening in the duration of cash flows).	
Question 11.			
If relevant, do you manage interest rate risk arising from pension obligations and pension plan assets within the IRRBB framework or do you cover it within another risk category (e.g. within market risk separately from IRRBB, etc.)?			
Interest rate from pension obligations and pension plan assets	Most respondents do not deem it appropriate to manage interest rate risk arising from pension obligations and assets under the IRRBB framework.	The EBA notes the comments, and wishes to clarify that, as pension plan obligations and pension plan assets are subject to interest rate risk, they should be captured in the risk framework. The current wording of the guidelines is deemed to leave sufficient room for consistency with the IMSs of the institutions and to allow for specificities in treatment of pension obligations and pension plan assets under different jurisdictions.	No changes made
Question 12.			
What treatment of commercial margins cash flows do you consider conceptually most correct in EV metric, when discounting with risk-free rate curve: a) including commercial margins cash flows or b) excluding commercial margins cash flows? Please justify your answer.			
	In general, respondents supported the flexibility provided to institutions to either include or exclude commercial margins	The feedback indicated a range of views on which approach was best. From a theoretical perspective, there was some support for the idea that excluding	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Treatment of commercial margins	cash flows for the purpose of the supervisory outlier test. The majority of respondents indicated that they deemed that both inclusion and exclusion could be valid depending on the risk profile and framework of the institution. Several respondents deemed that, conceptually, it was best to exclude margins, and only a few respondents thought they should be included. Those responses promoting exclusion suggested this was potentially more theoretically sound. One respondent indicated that the exclusion of commercial margins allows institutions to focus purely on interest rate risk without any credit, liquidity or other risk components. This was supported by other respondents, who thought that exclusion was probably, conceptually, a more pure approach. In addition, it would improve comparability between banks. One respondent indicated that commercial margins should be included only in the case of an 'economic' discounting approach. Several thought the impact of including commercial margins would be insignificant to IRRBB. Among those suggesting its inclusion, the main argument put forward was the difficulty/complexity of accurately isolating the commercial margins.	commercial margins may be conceptually 'more pure', while acknowledging that this could be difficult to implement in practice. The majority of respondents supported the EBA's proposed approach to allow firms flexibility to choose the approach to take on commercial margins for the purpose of the supervisory outlier test. The EBA acknowledges the comments received and welcomes the fact that the proposed approach is considered appropriate.	

Treatment of commercial margins

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	Respondents in favour of flexibility pointed out that the EVE calculation needs to be aligned with banks' risk frameworks and businesses, which will inevitably differ. There are frameworks that require including full cash flows in the EVE calculation and these could either be discounted with proprietary curves or adjusted for expected credit losses and funding costs. Some banks will consider margins part of their interest rate risk, may want to reflect dynamic assumptions and may require a more sophisticated approach than stripping margins from EVE calculations. Other banks prefer the exclusion of commercial margins from the EV metric, when discounting with risk-free rate curve, to show the IRRBB scenarios that the institution is exposed to and any large gap mismatches.		
Question 13. **Are your internal systems flexible enough to exclude margins for the purpose of calculating EV measures for the supervisory outlier test? If not, what would be the cost to adapt your systems (high, medium, low)? Please elaborate your answer.**			
Treatment of commercial margins for the supervisory outlier test	In general, respondents considered that it would be technically feasible to exclude margins, but there would be costs associated with the process. Whereas it was deemed that larger, more sophisticated banks would technically be able to separate margins, concern was	The EBA noted the concerns raised by respondents about the technical capabilities to exclude commercial margins from the calculation of EV measures. In this respect, the option to provide flexibility to institutions in terms of inclusion or exclusion of commercial margins for the	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	raised around issues and costs for the smaller banks to develop and implement a sensible methodology for disaggregating interest flows between the market rate and the customer margin element. For smaller banks, the view was that splitting out margins would be challenging, because such banks would not necessarily have the flexibility in their IT systems to make the change, or the existing frameworks to identify margin cash flows. In addition to significant costs and lead time to develop flexibility for the treatment of commercial margins, a number of conceptual issues were raised such as for the fixed-rate items of the balance sheet for which there are no observable commercial margins.	purpose of the supervisory outlier test has been retained.	
Question 14. **Do you consider the level of the proposed linear lower bound as described in paragraph 115(k) appropriate? If not, please provide concrete suggestions and justify your answer.**			
Shape of the linear lower bound yield curve	Whereas there was some understanding for the establishment of a minimum lower bound to negative interest rates in view of the current interest rate environment, the majority of respondents raised comments about the level and shape of the proposed linear lower bound.	The EBA notes the comments and opted to retain the current approach of a linear lower bound. Whereas a flat lower bound would ease some of the implementation challenges, it is less realistic and less conservative than a positively inclined one (especially for EVE measures) and it would pose challenges for calculating forward rates and lead to less informative results.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Shape of the linear lower bound yield curve	A large number of respondents pointed out IT constraints that would affect the implementation of a linearly increasing lower bound. The functionality to automate the change in floor over time is not offered by all ALM software solutions. Furthermore, the proposed relatively 'shallow' gradient of the lower bound is deemed to have a possibly immaterial impact on EVE results. Some respondents therefore proposed setting a parallel floor, where this approach does not lead to material differences in the EVE results. Moreover, applying a negative floor to currencies for which – until now – a zero lower bound was used would pose day one issues, with a sudden change in the results of the supervisory outlier test. Therefore, a phasing-in approach could be considered. In addition, conceptually, any lower bound will potentially cause asymmetry between upward and downward shocks. A few respondents pointed out that, if the same floor were applied to all yield curves, the basis spread between the yield curves might equal zero. Quite contrary to the argument that a linearly increasing uniform lower bound is already too complex, they suggested shocking the risk-	Based on the observations over the 5-year period, steepening the curve further might lead to rates falling below the lower bound.	

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	free curve and constructing other yield curves to preserve the current basis spread. One respondent proposed using floors only for cash flows where a contractual agreement is in place (e.g. loans with a 0% floor) or where a strategic plan/decision of the bank is in place (e.g. no negative rates for deposits).		
Minimum level of negative interest rates for the linear lower bound	Nearly half of the respondents assessed the proposed minimum level of negative interest rates as too conservative based on rates observed in the past, their variability and economic reasoning. Respondents referred to analyses of the historic volatility of interest rates performed on euros and pounds sterling that show that, even for the current very low levels, it is highly improbable that rates will go below -100 bps.	The EBA welcomes the comments on the proposed reference rate for the linear lower bound. In view of the industry comments and after further analysis, it opted to raise the reference rate of the single lower bound level from -150 bps to -100 bps. This level is deemed to be more conservative from an EVE perspective. The reference rate may be subject to review in the framework of the regulatory technical standards under the revised CRD/CRR framework.	Paragraph 115(k) has been amended as follows: A maturity-dependent post-shock interest rate floor should be applied for each currency starting with **-100 basis points** for immediate maturities. This floor should increase by 5 basis points per year, eventually reaching 0% for maturities of 20 years and more. **If observed rates are lower than the current lower reference rate of -100 basis points, institutions should apply the lower observed rate**.
Treatment of various currencies for the linear lower bound	A few respondents pointed out that, while they think that regulators should be in a position to determine the most appropriate lower bound for currencies under their jurisdictions, internationally active banks are faced with different prescribed lower bounds from different regulators, resulting in decreased	The EBA acknowledges the potential issue for cross-border institutions, and confirms the possibility for EU competent authorities to recognise lower bound floors prescribed by non-EU authorities for entities outside the EU of cross-border banking groups.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	efficiency in the reporting process and loss of comparability of disclosures across geographies.	The EBA wishes to clarify that the floor should indeed be applied to the risk-free curves and transposed consistently to all other curves.	
Interest rates below the floor of the linear lower bound	One respondent noted that the rules imply that in case the spot rate was below the floor, application of the floor would result in an increase of the rate.	The EBA welcomes the comment and has clarified in the guidelines that, if the observed rates are lower than the current lower reference rate of -100 bps, institutions should apply the lower observed rate.	Paragraph 115(k) has been amended as follows: A maturity-dependent post-shock interest rate floor should be applied for each currency starting with -100 basis points for immediate maturities. This floor should increase by 5 basis points per year, eventually reaching 0% for maturities of 20 years and more. **If observed rates are lower than the current lower reference rate of -100 basis points, institutions should apply the lower observed rate**.
Step-up floor	One respondent indicated that the step-up floor should be shortened to a more realistic 10Y, as it is difficult to imagine negative rates for the next 30 years.	The EBA notes the comment, and wishes to clarify that, whereas the reference rate has been raised from -150 bps to -100 bps, the slope of the curve has been maintained and the floor should increase by 5 bps per year, eventually reaching 0% for maturities of 20 years and more.	No changes made
Cross-jurisdictional differences in lower bounds	One respondent voiced concern that global banks could be subject to different prescribed lower bounds from different regulators. This would compromise the comparability of IRRBB disclosures across	The EBA wishes to clarify that competent authorities have the possibility of authorising different floors for currencies outside their jurisdictions, when the bound is defined by a foreign regulator.	No changes made

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
	geographies and reduce the efficiency of the reporting process.		

Question 15.

Do you consider the minimum threshold for material currencies included into the supervisory outlier test (5% for individual currency and minimum 90% of the total non-trading book assets or liabilities) sufficient to measure IRRBB in terms of EVE? If not, please provide concrete suggestions and justify your answer.

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Minimum threshold for material currencies	A large number of respondents agreed with the proposed threshold for material currencies, which is seen as being in line with common practices. One respondent requested clarification of whether or not the threshold is applicable for NII purposes. A few respondents proposed adding an additional materiality threshold (e.g. 2% of total banking book) in case the last 10% of exposure is fragmented among many currencies with a very low materiality.	The EBA notes the comments with regard to the minimum threshold for material currencies for the supervisory outlier test. The threshold has been maintained and is planned to be assessed under the QIS which is expected to be organised in the light of the technical standards expected to be mandated under the revised CRD/CRR.	No changes made

Question 16.

When aggregating changes to EVE in the supervisory outlier test, does the disregarding of positive changes to EVE have a material impact on the calculation of the supervisory outlier test?

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Currency aggregation	Most respondents indicated that the impact of the proposed currency risk aggregation methodology strongly depends on the balance sheet composition. Whereas some respondents	The EBA acknowledges that the proposed currency aggregation for the purpose of the supervisory outlier test is fairly conservative, especially for currencies that are pegged together. In order to allow	Paragraph 115(m) has been amended as follows: When calculating the aggregate EVE change for each interest rate shock scenario,

Comments	Summary of responses received	EBA analysis	Amendments to the proposals
Currency aggregation	estimated the impact of disregarding positive changes to EVE not to be material, others believed the effect to be significant. Many respondents viewed the proposed currency risk aggregation as being overly conservative and actually hindering risk diversification by disregarding any correlation and mitigation effects between currencies. According to them, the aggregation of all positive and negative positions would be a more accurate measure and it would make comparability across different banks clearer. Respondents recommended allowing banks to use their own approach for currency aggregation according to their IMSs.	comparability of the results of the supervisory outlier test, it was opted not to allow flexibility to institutions to base the currency aggregation for the purpose of the supervisory outlier test on their IMSs' approach. However, in order to recognise the benefits of risk diversification while at the same time maintaining the simplicity of the approach, under the final guidelines institutions are allowed to calculate the aggregate EVE change for the supervisory outlier test, adding together any negative and positive changes to EVE occurring in each currency but weighting positive changes by a factor of 50% A 50% weighting factor was included to allow for a middle ground between taking into account full diversification benefits and no diversification benefits. Whereas major currencies tend to exhibit a high degree of correlation (especially for the longer end of the yield curve), these relationships are not stable over time and cannot be expected to remain unchanged, especially in stressed market conditions. 50% was the minimum level of correlation of five major currencies observed in the period 2007-2017.	institutions should add together any negative **and positive** changes to EVE occurring in each currency. ~~**and disregard any positive changes to EVE**~~. **Positive changes should be weighted by a factor of 50%.**