

| EBA/CP/2024/10 | |
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| 24 April 2024 | |

Consultation Paper

Draft Regulatory Technical Standards

on the method for identifying the main risk driver of a position and for determining whether a transaction represents a long or a short position as referred to in Articles 94(3), 273a(3) and 325a(2) under Article 94(10) of Regulation (EU) No 575/2013



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1. Responding to this consultation

The EBA invites comments on all proposals put forward in this paper and in particular on the specific questions summarised in 5.2.

Comments are most helpful if they:

- respond to the question stated;
- indicate the specific point to which a comment relates;
- contain a clear rationale;
- provide evidence to support the views expressed/ rationale proposed; and
- describe any alternative regulatory choices the EBA should consider.

Submission of responses

To submit your comments, click on the 'send your comments' button on the consultation page by 24/07/2024. Please note that comments submitted after this deadline, or submitted via other means may not be processed.

Publication of responses

Please clearly indicate in the consultation form if you wish your comments to be disclosed or to be treated as confidential. A confidential response may be requested from us in accordance with the EBA's rules on public access to documents. We may consult you if we receive such a request. Any decision we make not to disclose the response is reviewable by the EBA's Board of Appeal and the European Ombudsman.

Data protection

The protection of individuals with regard to the processing of personal data by the EBA is based on Regulation (EU) 1725/2018 of the European Parliament and of the Council of 23 October 2018. Further information on data protection can be found under the Legal notice section of the EBA website.



2. Executive Summary

The Capital Requirements Regulation (CRR) includes some derogation for the calculation of the capital requirements for market and counterparty credit risks. Such derogations are in relation to institutions with small trading book business (Art. 94 of the CRR), the use of simplified methods for calculating the expected value of derivative transactions (Art. 273a of the CRR), and the use of the simplified standardized approach for market risk (Art. 325a of the CRR). The conditions for accessing such derogations depend on the size of the trading book business, the derivative business and the business subject to market risk, respectively.

For calculating the size of the business, "the absolute value of long positions shall be summed with the absolute value of short positions". However, no clarification is included around the notions of long and short positions or the aggregation mechanism in the calculation.

The amendments to the CRR introduced by the CRR3 include additional specifications around the calculation of the size of the business:

- The absolute value of the aggregated long position shall be summed with the absolute value of the aggregated short position;
- A long position means that the market value of the position increases when the value of its main risk driver increases, and a short position means that the market value of the position decreases, when the value of its main risk driver increases;
- The value of the aggregated long (short) position shall be equal to the sum of the values of the individual long (short) positions included in the calculation.

To complement these additional specifications, the CRR3 mandates the EBA to develop draft RTS specifying the method for identifying the main risk driver of a position and for determining whether a transaction represents a long or a short position.

The proposed general methodology to identify the main risk driver hinges on FRTB-SA sensitivities (for non-derivative and derivative positions) or SA-CCR add-ons (for derivative positions). The proposed general methodology for the determination of the direction of the positions is also based on sensitivities, or on the hedging/trading purpose. Such methodology is aligned with the one set out in the RTS on SA-CCR.

Considering that small banks are and have always been exempted from using the FRTB SA or SA-CCR, a simplified method has been included. The simplified method covers fixed-rate bonds, floating-rate notes, stocks, forwards, futures, simple swaps and plain vanilla options.

Next steps



Following the feedback received from the consultation, the EBA will revise the draft RTS proposed for consultation, where appropriate, and send them in their final form to the European Commission for adoption.



3. Background and rationale

- 1. The amendments to the Capital Requirements Regulation (CRR) introduced by the CRR3 included some specifications around the calculation of the size of the on- and off-balance-sheet business for the purpose of assessing the conditions for using
 - a. the derogation for small trading book business (set out in Art. 94 of the CRR),
 - b. the simplified methods for calculating the expected value of derivative transactions (set out in Art. 273a of the CRR)¹, and
 - c. the simplified standardized approach for market risk (set out in Art. 325a of the CRR).
- 2. The previous version of the Regulation (as set out in the CRR2) stated that, for calculating the size of the on- and off-balance-sheet trading book business, "the absolute value of long positions shall be summed with the absolute value of short positions". However, no clarification was included around the notions of long and short positions or the aggregation mechanism in the calculation.
- 3. The additional specifications introduced by the CRR3 are the following:
 - a. The absolute value of the <u>aggregated</u> long position shall be summed with the absolute value of the <u>aggregated</u> short position;
 - b. A <u>long position</u> means that the market value of the position <u>increases</u> when the value of its <u>main risk driver increases</u>, and a <u>short position</u> means that the market value of the position <u>decreases</u>, when the value of its <u>main risk driver increases</u>;
 - c. The value of the aggregated long (short) position shall be <u>equal to the sum</u> of the values of the individual long (short) positions included in the calculation.
- 4. To complement these additional specifications, the CRR3 mandates the EBA to develop draft RTS specifying the method for identifying the main risk driver of a position and for determining whether a transaction represents a long or a short position as referred to in Art. 94(3), 273a(3) and 325a(2). In developing those draft RTS, the EBA shall take into consideration the method developed for the RTS mandated in accordance with Art. 279a(3), point (b), of the CRR.

¹ According to Art. 385 of the CRR, an institution that meets the conditions set out in Art. 273a to use the OEM, may also calculate the own funds requirements for CVA risk as the RWEA for counterparty credit risk for non-trading book and trading book positions, divided by 12,5.



3.1 Scope of the RTS

- 5. For the purposes of assessing the conditions under Art. 94 of the CRR, institutions should consider all the positions assigned to the trading book in accordance with Art. 104, except for 1/ the positions concerning foreign exchange and commodities and 2/ the positions in credit derivatives that are recognised as internal hedges against non-trading book credit risk exposures or counterparty risk exposures and the credit derivate transactions that perfectly offset the market risk of those internal hedges as referred to in Art. 106(3).
- 6. For the purposes of assessing the conditions under Art. 273a of the CRR, institutions should consider all derivative positions, except credit derivatives that are recognised as internal hedges against non-trading book credit risk exposures.
- 7. For the purposes of assessing the conditions under Art. 325a of the CRR, institutions should consider all the positions assigned to the trading book, except credit derivatives that are recognised as internal hedges against non-trading book credit risk exposures and the credit derivative transactions that perfectly offset the market risk of the internal hedges as referred to in Art. 106(3). In addition, also all non-trading book positions that are subject to FX risk or commodity risk shall be included, except those positions that are excluded from the calculation of own funds requirements for FX risk in accordance with Art. 104c or that are deducted from the institution's own funds. However, the non-trading book positions subject to FX risk shall be considered as an overall net FX position and valued in accordance with Art. 352, and the non-trading book positions subject to commodity risk shall be valued in accordance with Art. 357 and 358. Therefore, such non-trading book positions are relevant, for the scope of these RTS, only for their FX and/or commodity risk drivers.

3.2 General methodology

8. The scope of the RTS includes both non-derivative and derivative transactions. While on the one hand, the treatment should be similar, consistent and coherent between these two categories of instruments, on the other hand some distinctions should be made. Therefore, these draft RTS propose a general methodology, which is then further specified separately for these two categories.

Identification of the main risk driver

- 9. The general methodology to identify the main risk driver of a non-derivative position hinges on sensitivities, in a similar fashion to the methodology to identify the material risk drivers of derivative transactions, which is set out in the RTS on SA-CCR².
- 10. Firstly, institutions are required to identifying all the risk drivers of the position, by looking at least at the risk factors in set out in the FRTB SA. Secondly, institutions are required to apply a quantitative methodology based on the computation of the FRTB SA delta sensitivities for each identified risk driver. Finally, sensitivities are compared with each other in a consistent fashion, i.e.

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- considering aspects that could bias the assessment such as the volatility of the risk drivers, which can differ depending on the risk category and type. To account for this aspect, the sensitivities are risk-weighted before comparing using the corresponding FRTB SA risk weights.
- 11.For derivative positions, the approach is fully aligned with the RTS on SA-CCR. In fact, institutions may use either the FRTB SA risk-weighted sensitivities (as for non-derivative positions) or the SA-CCR risk category add-ons to determine the main risk driver.

Determination of the direction of the position (long or short)

12.In accordance with the legal mandate, the methodology for the determination of the direction of non-derivative positions proposed in these draft RTS takes into account the elements (hedging purpose and sensitivities) used for the determination of the direction of the position under the SA-CCR framework (see Art. 6 of the RTS on SA-CCR). For derivative positions, the methodology is fully aligned with the one set out in the RTS on SA-CCR (based on cash flows, hedging purpose and sensitivities).

3.3 Simplified method

- 13. While FRTB SA sensitivities can provide an accurate identification of the main risk driver, their use may be too burdensome or difficult or even impossible for small banks, with relatively simple trading and/or derivative business. In particular, the banks which are and have always been exempted from using the FRTB SA (or the SA-CCR, for the case of derivative positions), may find themselves in the situation of being unable to comply with the requirements set out in the RTS.
- 14.In consideration of this, the proposed draft RTS also include a simplified approach for identifying the main risk driver and determining the direction of the position. Clearly, the scope of the simplified method is smaller than the one of the general approach, as complex trades clearly require a more sophisticated (quantitative) assessment. However, the EBA is of the view that the fundamental goal is to cover relatively simple instruments which are normally traded by small banks. In addition, it has been considered that banks which do not have the capacity of performing the general (quantitative) approach, should not trade in complex instruments which require advanced methods. The simplified method covers, therefore, fixed-rate bonds, floating-rate notes, stocks, forward and futures positions, IR swaps, CDS and plain vanilla options.

Fixed-rate bonds and floating-rate notes

- 15.Fixed-rate bonds represent simple positions for banks. However, their treatment for the determination of the threshold is not trivial.
- 16. Firstly, it should be considered that in their simplest form (zero or fixed coupon, in reporting currency) they depend on two different risk drivers, interest rate (IR) and credit spread (CS), and it may be very difficult to disentangle the main one. However, both those risk drivers have the same direction (bought bond is short in IR and CS, sold bond is long in IR and CS) and as such the outcome of the assessment does not change depending on which risk driver is selected as main one. More complicated are bonds in foreign currency, as in such a case the effect of the FX risk driver on the



bond's value is the opposite of IR and CS (bought bond is long in FX, sold bond is short in FX). This issue is relevant for bonds in the TB, as positions in the BB should be relevant only under the conditions of Art. 325a and for their FX and Comm components – in such a case FX would be the main risk driver for bonds in foreign currency in the BB.

- 17.In addition, bonds can also depend on inflation (Infl). This is true in particular for Inflation-indexed bonds, for which interest and principal payments are tied to an index of price changes. In such a case, the inflation rate becomes one of the risk drivers of the bond, and its effect has the same sign as FX and the opposite sign of IR and CS.
- 18. For bonds that depend also on FX and/or Infl, it should be noted that the main risk driver may not be the same for the entire life of the bond. In fact, the effect of IR, CS and Infl depends on the duration of a bond, which changes across the life of the instrument. The effect of FX instead does not show this dependency. In addition, the residual maturity of the bond also affects the determination of the IR tenors which mostly affect its value. Those tenors are typically associated with different risk weights. The comparison between weighted sensitivities can therefore produce different results depending on the point in time in which the assessment is done and in particular on the remaining life of the bond at that moment.
- 19. Considering the issues mentioned above, below an analysis is presented on the determination of the main risk driver in various cases. The analysis takes into account the fact that:
 - For the currencies included in the most liquid currency sub-category as referred to in point (b) of 325bd(7) and the institution's reporting currency, the risk weights of the risk-free rate risk factors shall be the risk weights referred to in Table 3 divided by V2 (Art. 325ae).
 - Institutions shall apply a risk weight of 1,6 % to all sensitivities of inflation risk factors (Art. 325ae)³.
 - The risk weight of the FX risk factors included in the most liquid currency pairs sub-category as referred to in point (c) of 325bd(7) shall be the 15% divided by V2 (Art. 325av). In addition, the risk weight of the FX risk factors concerning currency pairs which are composed of the euro and the currency of a Member State participating in the second stage of the economic and monetary union (ERM II)⁴ shall be one of the following:
 - 15% divided by 3;

³ For simplicity, cross currency basis risk factors have not been considered.

⁴ Currently, ERM II includes the currencies of Bulgaria and Denmark. The Bulgarian lev joined ERM II on 10 July 2020 and observes a central rate of 1.95583 to the euro. Bulgaria also committed unilaterally to continue its currency board arrangement within the ERM II. The Danish kroner joined ERM II on 1 January 1999, and observes a central rate of 7.46038 to the euro with a narrow fluctuation band of ±2.25%.

For further information, see https://economy-finance.ec.europa.eu/euro/enlargement-euro-area/adoption-fixed-euro-conversion-rate/erm-ii-eus-exchange-rate-mechanism_en



- the maximum fluctuation within the fluctuation band formally agreed by the Member
 State and the European Central Bank, if that fluctuation band is narrower than the fluctuation band defined under ERM II.
- The sensitivity of a bond to the IR risk driver is assumed to be⁵

$$Sens_{IR} = -ModDuration \cdot Bond \ Value$$

The sensitivity of a bond to the CS risk driver is assumed to be

$$Sens_{CS} = -ModDuration \cdot Bond \ Value$$

• The sensitivity of a bond to the Infl risk driver is assumed to be

$$Sens_{Infl} = +ModDuration \cdot Bond\ Value$$

• The sensitivity of a bond to the FX risk driver is assumed to be

$$Sens_{FX} = Bond\ Value$$

• The simplifying assumption is used that ModDuration = Residual maturity.

Table 1: Main risk driver of a bond, no FX component or Inflation-linked

| | | | | Domestic currency of the institution (no FX risk) 0,25 years 0,5 years 1 year 2 years 3 years 5 years 10 years 15 years 20 years 30 years | | | | | | | | | |
|----------------------|--------|--|----------------|--|-----------|--------|---------|---------|---------|----------|----------|----------|----------|
| | | | | 0,25 years | 0,5 years | 1 year | 2 years | 3 years | 5 years | 10 years | 15 years | 20 years | 30 years |
| Credit quality | Bucket | Sector | Risk Weight | 1.20% | 1.20% | 1.13% | 0.92% | 0.85% | 0.78% | 0.78% | 0.78% | 0.78% | 0.78% |
| | 1 | Central government, including central banks, of | 0.50% | IR | IR | IR | IR | IR | IR | IR | IR | IR | IR |
| | 2 | Central government, including central banks, of | 0.50% | IR | IR | IR | IR | IR | IR | IR | IR | IR | IR |
| | 3 | Regional or local authority and public sector entities | 1.00% | IR | IR | IR | cs | cs | CS | cs | cs | CS | cs |
| Credit | 4 | Financial sector entities including credit institutions | 5.00% | cs | CS | cs | cs | cs | CS | cs | cs | cs | cs |
| quality step 1 to | 5 | Basic materials, energy, industrials, agriculture, | 3.00% | cs | cs | cs | cs | cs | CS | cs | cs | cs | cs |
| 3 | 6 | Consumer goods and services, transportation | 3.00% | cs | cs | cs | cs | cs | CS | cs | cs | cs | cs |
| | 7 | Technology, telecommunications | 2.00% | cs | CS | cs | cs | cs | CS | cs | cs | cs | cs |
| | 8 | Health care, utilities, professional and technical | 1.50% | cs | cs | cs | cs | cs | CS | cs | cs | cs | cs |
| | 9 | Covered bonds issued by credit institutions | 1.00% | IR | IR | IR | cs | cs | CS | cs | cs | cs | cs |
| | 40 | Covered bonds issued by credit institutions in third | 1.50% | cs | cs | cs | cs | cs | CS | cs | cs | cs | cs |
| | 10 | Covered bonds issued by credit institutions in third | 2.50% | cs | cs | cs | cs | cs | CS | cs | cs | cs | cs |
| | 11 | Central government, including central banks, of | 2.00% | cs | cs | cs | cs | cs | cs | cs | cs | cs | cs |
| | 12 | Regional or local authority and public sector entities | 4.00% | cs | cs | cs | cs | cs | CS | cs | cs | cs | cs |
| Credit quality | 13 | Financial sector entities including credit institutions | 12.00% | cs | cs | cs | cs | cs | CS | cs | cs | cs | cs |
| step 4 to | 14 | Basic materials, energy, industrials, agriculture, | 7.00% | cs | cs | cs | cs | cs | cs | cs | cs | cs | cs |
| 6 and unrated | 15 | Consumer goods and services, transportation | 8.50% | cs | cs | cs | cs | cs | cs | cs | cs | cs | cs |
| | 16 | Technology, telecommunications | 5.50% | cs | cs | cs | cs | cs | cs | cs | cs | cs | cs |
| | 17 | Health care, utilities, professional and technical | 5.00% | cs | CS | cs | cs | CS | CS | cs | cs | CS | cs |
| _ | 18 | Other sector | 12.00% | cs | CS | cs | CS | CS | cs | cs | cs | CS | cs |
| | 19 | Listed credit indices with a majority of its individual | 1.50% | cs | CS | cs | CS | CS | cs | cs | cs | CS | cs |
| | 20 | Listed credit indices with a majority of its individual | 5.00% | cs | CS | CS | CS | CS | CS | CS | CS | CS | cs |

⁵ ModDuration is defined as $(-1/Bond\ Value) \cdot \partial\ Bond\ Value/\partial\ Yield$



Table 2: Main risk driver of a bond with FX (currencies under ERM II and for which Art. 325av(2)(a) applies), no Inflation-linked

| mikeu | | | | Currencies under ERM II and for which point (a) of Art. 325av(2) applies 0,25 years 0,5 years 1 year 2 years 3 years 5 years 10 years 15 years 20 years 30 years | | | | | | | | | | | |
|----------------------|--------|--|----------------|---|-------|-------|-------|-------|---------|----------|-----|----|----------|--|--|
| | | | Maturity | 0.25 years | | | | | 5 years | 10 years | . , | | 30 years | | |
| Credit quality | Bucket | Sector | Risk Weight | 1.70% | 1.70% | 1.60% | 1.30% | 1.20% | | | | | 1.10% | | |
| | 1 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | IR | IR | IR | IR | IR | | |
| | 2 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | IR | IR | IR | IR | IR | | |
| | 3 | Regional or local authority and public sector entities | 1.00% | FX | FX | FX | FX | FX | IR | IR | IR | IR | IR | | |
| Credit | 4 | Financial sector entities including credit institutions | 5.00% | FX | FX | cs | cs | cs | cs | cs | cs | cs | cs | | |
| quality step 1 to | 5 | Basic materials, energy, industrials, agriculture, | 3.00% | FX | FX | FX | CS | CS | CS | cs | cs | cs | cs | | |
| 3 | 6 | Consumer goods and services, transportation | 3.00% | FX | FX | FX | CS | CS | CS | cs | cs | cs | cs | | |
| | 7 | Technology, telecommunications | 2.00% | FX | FX | FX | FX | cs | cs | cs | cs | cs | cs | | |
| | 8 | Health care, utilities, professional and technical | 1.50% | FX | FX | FX | FX | FX | cs | cs | cs | cs | cs | | |
| | 9 | Covered bonds issued by credit institutions | 1.00% | FX | FX | FX | FX | FX | IR | IR | IR | IR | IR | | |
| | 10 | Covered bonds issued by credit institutions in third | 1.50% | FX | FX | FX | FX | FX | cs | cs | cs | cs | cs | | |
| | 10 | Covered bonds issued by credit institutions in third | 2.50% | FX | FX | FX | cs | cs | cs | cs | cs | cs | cs | | |
| | 11 | Central government, including central banks, of | 2.00% | FX | FX | FX | FX | cs | cs | cs | cs | cs | cs | | |
| | 12 | Regional or local authority and public sector entities | 4.00% | FX | FX | FX | CS | cs | cs | cs | cs | cs | cs | | |
| Credit quality | 13 | Financial sector entities including credit institutions | 12.00% | FX | cs | CS | CS | cs | cs | cs | cs | cs | cs | | |
| step 4 to | 14 | Basic materials, energy, industrials, agriculture, | 7.00% | FX | FX | cs | cs | cs | cs | cs | cs | cs | cs | | |
| 6 and unrated | 15 | Consumer goods and services, transportation | 8.50% | FX | FX | cs | cs | cs | cs | cs | cs | cs | cs | | |
| | 16 | Technology, telecommunications | 5.50% | FX | FX | cs | cs | cs | cs | cs | cs | cs | cs | | |
| | 17 | Health care, utilities, professional and technical | 5.00% | FX | FX | cs | cs | cs | cs | cs | cs | cs | cs | | |
| | 18 | Other sector | 12.00% | FX | CS | cs | CS | CS | cs | CS | cs | cs | cs | | |
| | 19 | Listed credit indices with a majority of its individual | 1.50% | FX | FX | FX | FX | FX | CS | CS | CS | cs | cs | | |
| | 20 | Listed credit indices with a majority of its individual | 5.00% | FX | FX | cs | cs | CS | CS | CS | cs | cs | cs | | |

Table 3: Main risk driver of a bond with FX (currencies under ERM II and for which Art. 325av(2)(b) applies⁶), no Inflation-linked

| | | | | Currencies under ERM II and for which point (b) of Art. 325av(2) applies | | | | | | | | | |
|----------------------|--------|--|----------------|--|-----------|--------|---------|---------|---------|----------|----------|----------|----------|
| | | | | 0,25 years | 0,5 years | 1 year | 2 years | 3 years | 5 years | 10 years | 15 years | 20 years | 30 years |
| Credit quality | Bucket | Sector | Risk Weight | 1.70% | 1.70% | 1.60% | 1.30% | 1.20% | 1.10% | 1.10% | 1.10% | 1.10% | 1.10% |
| | 1 | Central government, including central banks, of | 0.50% | FX | FX | FX | IR | IR | IR | IR | IR | IR | IR |
| | 2 | Central government, including central banks, of | 0.50% | FX | FX | FX | IR | IR | IR | IR | IR | IR | IR |
| | 3 | Regional or local authority and public sector entities | 1.00% | FX | FX | FX | IR | IR | IR | IR | IR | IR | IR |
| Credit | 4 | Financial sector entities including credit institutions | 5.00% | FX | CS | cs | cs | cs | CS | CS | cs | cs | CS |
| quality step 1 to | 5 | Basic materials, energy, industrials, agriculture, | 3.00% | FX | FX | cs | cs | cs | CS | CS | cs | cs | cs |
| 3 | 6 | Consumer goods and services, transportation | 3.00% | FX | FX | cs | cs | cs | CS | CS | cs | cs | cs |
| | 7 | Technology, telecommunications | 2.00% | FX | FX | FX | cs | cs | cs | cs | cs | cs | cs |
| | 8 | Health care, utilities, professional and technical | 1.50% | FX | FX | FX | cs | cs | CS | CS | cs | cs | cs |
| , | 9 | Covered bonds issued by credit institutions | 1.00% | FX | FX | FX | IR | IR | IR | IR | IR | IR | IR |
| | 10 | Covered bonds issued by credit institutions in third | 1.50% | FX | FX | FX | cs | cs | cs | cs | cs | cs | cs |
| | 10 | Covered bonds issued by credit institutions in third | 2.50% | FX | FX | cs | cs | cs | cs | cs | cs | cs | cs |
| | 11 | Central government, including central banks, of | 2.00% | FX | FX | FX | cs | cs | cs | cs | cs | cs | cs |
| | 12 | Regional or local authority and public sector entities | 4.00% | FX | FX | cs | cs | cs | cs | cs | cs | cs | cs |
| Credit quality | 13 | Financial sector entities including credit institutions | 12.00% | cs | cs | cs | cs | cs | cs | cs | cs | cs | cs |
| step 4 to | 14 | Basic materials, energy, industrials, agriculture, | 7.00% | FX | cs | cs | cs | cs | cs | cs | cs | cs | cs |
| 6 and unrated | 15 | Consumer goods and services, transportation | 8.50% | FX | cs | cs | cs | cs | cs | cs | cs | cs | cs |
| | 16 | Technology, telecommunications | 5.50% | FX | cs | cs | cs | cs | cs | cs | cs | cs | cs |
| | 17 | Health care, utilities, professional and technical | 5.00% | FX | CS | cs | cs | cs | cs | CS | cs | cs | cs |
| | 18 | Other sector | 12.00% | CS | CS | cs | cs | cs | cs | CS | cs | cs | cs |
| | 19 | Listed credit indices with a majority of its individual | 1.50% | FX | FX | FX | cs | cs | cs | CS | cs | cs | cs |
| | 20 | Listed credit indices with a majority of its individual | 5.00% | FX | CS | CS | CS | CS | CS | CS | CS | CS | cs |

 6 In particular, in the present table, a risk weight of 2.25% is assumed for the FX risk factor, which correspond to the narrow fluctuation band of $\pm 2.25\%$ between euro and Danish kroner.



Table 4: Main risk driver of a bond with FX (EUR, USD, GBP, AUD, JPY, SEK, CAD), no Inflation-linked

| | | | | Currencies included in the most liquid currency sub-category as referred to in point (b) of 325bd(7) | | | | | | | | | | |
|----------------------|--------|--|----------------|--|-------|--------|---------|----|---------|----|----------|----------|----------|--|
| | | | Maturity | 0,25 years | | 1 year | 2 years | | 5 years | | 15 years | 20 years | 30 years | |
| Credit quality | Bucket | Sector | Risk Weight | 1.20% | 1.20% | 1.13% | 0.92% | | | | | | | |
| | 1 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | FX | FX | IR | IR | IR | |
| | 2 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | FX | FX | IR | IR | IR | |
| | 3 | Regional or local authority and public sector entities | 1.00% | FX | FX | FX | FX | FX | FX | FX | cs | CS | cs | |
| Credit | 4 | Financial sector entities including credit institutions | 5.00% | FX | FX | FX | FX | cs | cs | cs | cs | cs | cs | |
| quality step 1 to | 5 | Basic materials, energy, industrials, agriculture, | 3.00% | FX | FX | FX | FX | FX | cs | cs | CS | CS | cs | |
| 3 | 6 | Consumer goods and services, transportation | 3.00% | FX | FX | FX | FX | FX | cs | cs | cs | cs | CS | |
| | 7 | Technology, telecommunications | 2.00% | FX | FX | FX | FX | FX | FX | cs | cs | cs | cs | |
| | 8 | Health care, utilities, professional and technical | 1.50% | FX | FX | FX | FX | FX | FX | cs | cs | cs | CS | |
| | 9 | Covered bonds issued by credit institutions | 1.00% | FX | FX | FX | FX | FX | FX | FX | cs | cs | cs | |
| | 10 | Covered bonds issued by credit institutions in third | 1.50% | FX | FX | FX | FX | FX | FX | cs | cs | cs | cs | |
| | 10 | Covered bonds issued by credit institutions in third | 2.50% | FX | FX | FX | FX | FX | cs | cs | cs | cs | CS | |
| | 11 | Central government, including central banks, of | 2.00% | FX | FX | FX | FX | FX | FX | cs | CS | CS | cs | |
| | 12 | Regional or local authority and public sector entities | 4.00% | FX | FX | FX | FX | cs | cs | cs | cs | cs | cs | |
| Credit quality | 13 | Financial sector entities including credit institutions | 12.00% | FX | FX | CS | cs | CS | CS | cs | cs | cs | CS | |
| step 4 to | 14 | Basic materials, energy, industrials, agriculture, | 7.00% | FX | FX | FX | cs | CS | cs | cs | cs | cs | cs | |
| 6 and unrated | 15 | Consumer goods and services, transportation | 8.50% | FX | FX | FX | cs | cs | cs | cs | cs | cs | cs | |
| | 16 | Technology, telecommunications | 5.50% | FX | FX | FX | cs | cs | cs | cs | CS | CS | cs | |
| | 17 | Health care, utilities, professional and technical | 5.00% | FX | FX | FX | FX | cs | cs | CS | cs | CS | cs | |
| | 18 | Other sector | 12.00% | FX | FX | cs | cs | CS | cs | cs | CS | cs | cs | |
| | 19 | Listed credit indices with a majority of its individual | 1.50% | FX | FX | FX | FX | FX | FX | cs | CS | CS | cs | |
| | 20 | Listed credit indices with a majority of its individual | 5.00% | FX | FX | FX | FX | cs | cs | cs | cs | cs | cs | |

Table 5: Main risk driver of a bond with FX (CHF, MXN, CNY, etc), no Inflation-linked

| | | | | Currencies not included in the most liquid currency sub-category as referred to in point (b) of Article 325bd(7) but part of the most liquid currency pairs sub-category as referred to in point (c) of 325bd(7) | | | | | | | | | |
|----------------------|--------|--|----------------|--|---------------|--------------|-------------|------------|-------------|-------------|--------------|------------|------------|
| | | | | bı | ut part of th | ne most liqu | id currency | pairs sub- | category as | referred to | in point (c) | of 325bd(7 | ') |
| | | | | 0,25 years | 0,5 years | 1 year | 2 years | 3 years | 5 years | 10 years | 15 years | 20 years | 30 years |
| Credit quality | Bucket | Sector | Risk Weight | 1.70% | 1.70% | 1.60% | 1.30% | 1.20% | 1.10% | 1.10% | 1.10% | 1.10% | 1.10% |
| | 1 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | FX | IR | IR | IR | IR |
| | 2 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | FX | IR | IR | IR | IR |
| | 3 | Regional or local authority and public sector entities | 1.00% | FX | FX | FX | FX | FX | FX | IR | IR | IR | IR |
| Credit | 4 | Financial sector entities including credit institutions | 5.00% | FX | FX | FX | FX | cs | cs | CS | cs | cs | cs |
| quality step 1 to | 5 | Basic materials, energy, industrials, agriculture, | 3.00% | FX | FX | FX | FX | FX | cs | cs | cs | cs | cs |
| 3 | 6 | Consumer goods and services, transportation | 3.00% | FX | FX | FX | FX | FX | cs | cs | cs | cs | cs |
| | 7 | Technology, telecommunications | 2.00% | FX | FX | FX | FX | FX | FX | cs | cs | cs | cs |
| | 8 | Health care, utilities, professional and technical | 1.50% | FX | FX | FX | FX | FX | FX | cs | cs | cs | cs |
| | 9 | Covered bonds issued by credit institutions | 1.00% | FX | FX | FX | FX | FX | FX | IR | IR | IR | IR |
| | 10 | Covered bonds issued by credit institutions in third | 1.50% | FX | FX | FX | FX | FX | FX | CS | cs | cs | cs |
| | | Covered bonds issued by credit institutions in third | 2.50% | FX | FX | FX | FX | FX | cs | CS | cs | cs | cs |
| | 11 | Central government, including central banks, of | 2.00% | FX | FX | FX | FX | FX | FX | CS | cs | cs | cs |
| 0 15 | 12 | Regional or local authority and public sector entities | 4.00% | FX | FX | FX | FX | CS | CS | cs | cs | cs | cs |
| Credit quality | 13 | Financial sector entities including credit institutions | 12.00% | FX | FX | cs | cs | CS | CS | cs | cs | cs | cs |
| step 4 to 6 and | 14 | Basic materials, energy, industrials, agriculture, | 7.00% | FX | FX | FX | cs | CS | CS | cs | cs | cs | cs |
| unrated | 15 | Consumer goods and services, transportation | 8.50% | FX | FX | FX | cs | CS | CS | cs | cs | cs | cs |
| | 16 | Technology, telecommunications | 5.50% | FX | FX | FX | cs | CS | cs | cs | cs | cs | cs |
| | 17 | Health care, utilities, professional and technical | 5.00% | FX | FX | FX | FX | CS | cs | cs | cs | cs | cs |
| | 18 | Other sector | 12.00% | FX | FX | cs | cs | CS | cs | cs | cs | cs | cs |
| | 19 | Listed credit indices with a majority of its individual | 1.50% | FX | FX | FX | FX | FX | FX | cs | cs | cs | cs |
| | 20 | Listed credit indices with a majority of its individual | 5.00% | FX | FX | FX | FX | cs | CS | cs | cs | cs | cs |



Table 6: Main risk driver of a bond with FX (other currencies), no Inflation-linked

| | | Currencies not included in the most liquid currency sub-category as referred to in point (b) Article 325bd(7), and not part of the most liquid currency pairs sub-category as referred to in point (c) of 325bd(7) | | | | | | | | | | | |
|----------------------|--------|--|----------------|------------|-------|--------|-------|---------|---------|----------|----------|----------|----------|
| | | | Maturity | 0,25 years | | 1 year | | 3 years | 5 years | 10 years | 15 years | 20 years | 30 years |
| Credit quality | Bucket | Sector | Risk Weight | 1.70% | 1.70% | | 1.30% | | | | 1.10% | | |
| | 1 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | FX | FX | IR | IR | IR |
| | 2 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | FX | FX | IR | IR | IR |
| | 3 | Regional or local authority and public sector entities | 1.00% | FX | FX | FX | FX | FX | FX | FX | IR | IR | IR |
| Credit | 4 | Financial sector entities including credit institutions | 5.00% | FX | FX | FX | FX | cs | cs | cs | cs | cs | cs |
| quality step 1 to | 5 | Basic materials, energy, industrials, agriculture, | 3.00% | FX | FX | FX | FX | FX | cs | cs | cs | cs | cs |
| 3 | 6 | Consumer goods and services, transportation | 3.00% | FX | FX | FX | FX | FX | cs | cs | cs | cs | cs |
| | 7 | Technology, telecommunications | 2.00% | FX | FX | FX | FX | FX | FX | cs | cs | cs | cs |
| | 8 | Health care, utilities, professional and technical | 1.50% | FX | FX | FX | FX | FX | FX | cs | cs | cs | cs |
| | 9 | Covered bonds issued by credit institutions | 1.00% | FX | FX | FX | FX | FX | FX | FX | IR | IR | IR |
| | 10 | Covered bonds issued by credit institutions in third | 1.50% | FX | FX | FX | FX | FX | FX | cs | cs | cs | cs |
| | 10 | Covered bonds issued by credit institutions in third | 2.50% | FX | FX | FX | FX | FX | FX | cs | cs | cs | cs |
| | 11 | Central government, including central banks, of | 2.00% | FX | FX | FX | FX | FX | FX | cs | cs | cs | cs |
| | 12 | Regional or local authority and public sector entities | 4.00% | FX | FX | FX | FX | FX | cs | cs | cs | cs | CS |
| Credit quality | 13 | Financial sector entities including credit institutions | 12.00% | FX | FX | FX | cs | cs | CS | cs | CS | cs | CS |
| step 4 to 6 and | 14 | Basic materials, energy, industrials, agriculture, | 7.00% | FX | FX | FX | FX | cs | CS | cs | CS | cs | CS |
| unrated | 15 | Consumer goods and services, transportation | 8.50% | FX | FX | FX | cs | cs | CS | cs | cs | cs | cs |
| | 16 | Technology, telecommunications | 5.50% | FX | FX | FX | FX | cs | CS | cs | cs | cs | cs |
| | 17 | Health care, utilities, professional and technical | 5.00% | FX | FX | FX | FX | CS | CS | CS | cs | CS | cs |
| | 18 | Other sector | 12.00% | FX | FX | FX | CS | CS | cs | CS | cs | CS | cs |
| | 19 | Listed credit indices with a majority of its individual | 1.50% | FX | FX | FX | FX | FX | FX | cs | cs | cs | cs |
| | 20 | Listed credit indices with a majority of its individual | 5.00% | FX | FX | FX | FX | cs | CS | cs | cs | cs | cs |

Table 7: Main risk driver of a bond Inflation-linked , no FX

| | | | | Domestic currency of the institution (no FX risk) 0.25 years 0.5 years 1 year 2 years 3 years 5 years 10 years 15 years 20 years 30 years 10 yea | | | | | | | | | |
|----------------------|--------|--|----------------|--|-----------|--------|---------|---------|---------|----------|----------|----------|----------|
| | | | Maturity | 0,25 years | 0,5 years | 1 year | 2 years | 3 years | 5 years | 10 years | 15 years | 20 years | 30 years |
| Credit quality | Bucket | Sector | Risk Weight | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% |
| | 1 | Central government, including central banks, of | 0.50% | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| | 2 | Central government, including central banks, of | 0.50% | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| | 3 | Regional or local authority and public sector entities | 1.00% | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| Credit | 4 | Financial sector entities including credit institutions | 5.00% | CS | CS | cs | cs | cs | CS | cs | cs | cs | cs |
| quality step 1 to | 5 | Basic materials, energy, industrials, agriculture, | 3.00% | CS | CS | cs | cs | cs | CS | cs | cs | cs | cs |
| 3 | 6 | Consumer goods and services, transportation | 3.00% | CS | CS | cs | cs | cs | CS | cs | cs | cs | cs |
| | 7 | Technology, telecommunications | 2.00% | cs | CS | CS | CS | CS | CS | cs | CS | CS | CS |
| | 8 | Health care, utilities, professional and technical | 1.50% | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| | 9 | Covered bonds issued by credit institutions | 1.00% | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| | 10 | Covered bonds issued by credit institutions in third | 1.50% | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| | 10 | Covered bonds issued by credit institutions in third | 2.50% | cs | cs | cs | cs | cs | CS | cs | cs | cs | cs |
| | 11 | Central government, including central banks, of | 2.00% | cs | cs | cs | cs | cs | cs | cs | cs | cs | cs |
| | 12 | Regional or local authority and public sector entities | 4.00% | cs | cs | cs | cs | cs | cs | cs | cs | cs | cs |
| Credit quality | 13 | Financial sector entities including credit institutions | 12.00% | cs | cs | cs | cs | cs | cs | cs | cs | cs | cs |
| step 4 to | 14 | Basic materials, energy, industrials, agriculture, | 7.00% | cs | cs | cs | cs | cs | cs | cs | cs | cs | cs |
| 6 and unrated | 15 | Consumer goods and services, transportation | 8.50% | cs | cs | cs | cs | cs | CS | cs | cs | cs | cs |
| | 16 | Technology, telecommunications | 5.50% | cs | cs | cs | cs | cs | cs | cs | cs | cs | cs |
| | 17 | Health care, utilities, professional and technical | 5.00% | CS | CS | CS | CS | CS | CS | CS | CS | CS | cs |
| | 18 | Other sector | 12.00% | cs | CS | CS | CS | CS | CS | CS | cs | CS | cs |
| | 19 | Listed credit indices with a majority of its individual | 1.50% | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| | 20 | Listed credit indices with a majority of its individual | 5.00% | cs | cs | cs | cs | cs | cs | cs | cs | cs | cs |



Table 8: Main risk driver of a bond with FX (currencies under ERM II and for which Art. 325av(2)(a) applies) and Inflation-linked

| Шкеи | | | | Currencies under ERM II and for which point (a) of Art. 325av(2) applies | | | | | | | | | | | |
|----------------------|--------|--|----------------|--|-----------|--------------|-------------|------------|---------------|---------------|--------------|----------|----------|--|--|
| | | | | | Cı | urrencies ui | nder ERM II | and for wh | nich point (a |) of Art. 325 | 5av(2) appli | es | | | |
| | | | Maturity | 0,25 years | 0,5 years | 1 year | 2 years | 3 years | 5 years | 10 years | 15 years | 20 years | 30 years | | |
| Credit quality | Bucket | Sector | Risk Weight | 1.70% | 1.70% | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% | | |
| | 1 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | | |
| | 2 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | | |
| | 3 | Regional or local authority and public sector entities | 1.00% | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | | |
| Credit | 4 | Financial sector entities including credit institutions | 5.00% | FX | FX | cs | cs | cs | cs | cs | cs | CS | cs | | |
| quality step 1 to | 5 | Basic materials, energy, industrials, agriculture, | 3.00% | FX | FX | FX | cs | cs | cs | cs | cs | CS | cs | | |
| 3 | 6 | Consumer goods and services, transportation | 3.00% | FX | FX | FX | cs | cs | CS | cs | cs | CS | cs | | |
| | 7 | Technology, telecommunications | 2.00% | FX | FX | FX | FX | cs | cs | cs | cs | CS | cs | | |
| | 8 | Health care, utilities, professional and technical | 1.50% | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | | |
| | 9 | Covered bonds issued by credit institutions | 1.00% | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | | |
| | 10 | Covered bonds issued by credit institutions in third | 1.50% | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | | |
| | 10 | Covered bonds issued by credit institutions in third | 2.50% | FX | FX | FX | cs | cs | cs | cs | cs | CS | cs | | |
| | 11 | Central government, including central banks, of | 2.00% | FX | FX | FX | FX | cs | CS | cs | CS | CS | cs | | |
| | 12 | Regional or local authority and public sector entities | 4.00% | FX | FX | FX | cs | cs | CS | cs | CS | CS | cs | | |
| Credit quality | 13 | Financial sector entities including credit institutions | 12.00% | FX | cs | CS | cs | cs | CS | cs | CS | CS | cs | | |
| step 4 to | 14 | Basic materials, energy, industrials, agriculture, | 7.00% | FX | FX | CS | CS | CS | CS | CS | CS | CS | CS | | |
| 6 and unrated | 15 | Consumer goods and services, transportation | 8.50% | FX | FX | CS | cs | cs | CS | cs | CS | CS | cs | | |
| | 16 | Technology, telecommunications | 5.50% | FX | FX | CS | CS | CS | cs | cs | cs | CS | cs | | |
| | 17 | Health care, utilities, professional and technical | 5.00% | FX | FX | CS | CS | CS | cs | cs | cs | CS | cs | | |
| | 18 | Other sector | 12.00% | FX | cs | cs | cs | cs | cs | cs | cs | cs | cs | | |
| | 19 | Listed credit indices with a majority of its individual | 1.50% | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | | |
| | 20 | Listed credit indices with a majority of its individual | 5.00% | FX | FX | cs | cs | cs | cs | cs | cs | cs | cs | | |

Table 9: Main risk driver of a bond with FX (currencies under ERM II and for which Art. 325av(2)(b) applies) and Inflation-linked

| | | | | | С | urrencies u | nder ERM I | and for wh | nich point (b |) of Art. 325 | 5av(2) appli | ies | |
|----------------------|--------|--|----------------|------------|-----------|-------------|------------|------------|---------------|---------------|--------------|----------|----------|
| | | | Maturity | 0,25 years | 0,5 years | 1 year | 2 years | 3 years | 5 years | 10 years | 15 years | 20 years | 30 years |
| Credit quality | Bucket | Sector | Risk Weight | 1.70% | 1.70% | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% | 1.60% |
| | 1 | Central government, including central banks, of | 0.50% | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| | 2 | Central government, including central banks, of | 0.50% | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| | 3 | Regional or local authority and public sector entities | 1.00% | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| Credit | 4 | Financial sector entities including credit institutions | 5.00% | FX | cs | cs | cs | cs | CS | cs | cs | CS | cs |
| quality step 1 to | 5 | Basic materials, energy, industrials, agriculture, | 3.00% | FX | FX | cs | cs | cs | CS | cs | CS | CS | cs |
| 3 | 6 | Consumer goods and services, transportation | 3.00% | FX | FX | cs | cs | cs | CS | cs | cs | CS | cs |
| | 7 | Technology, telecommunications | 2.00% | FX | FX | FX | cs | cs | cs | cs | CS | CS | cs |
| | 8 | Health care, utilities, professional and technical | 1.50% | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| • | 9 | Covered bonds issued by credit institutions | 1.00% | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| | 10 | Covered bonds issued by credit institutions in third | 1.50% | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| | 10 | Covered bonds issued by credit institutions in third | 2.50% | FX | FX | cs | cs | cs | CS | cs | CS | CS | cs |
| | 11 | Central government, including central banks, of | 2.00% | FX | FX | FX | cs | cs | CS | cs | CS | CS | cs |
| | 12 | Regional or local authority and public sector entities | 4.00% | FX | FX | cs | cs | cs | CS | cs | CS | CS | cs |
| Credit quality | 13 | Financial sector entities including credit institutions | 12.00% | cs | CS | cs | cs | cs | CS | cs | CS | CS | cs |
| step 4 to | 14 | Basic materials, energy, industrials, agriculture, | 7.00% | FX | CS | cs | cs | cs | CS | cs | CS | CS | cs |
| 6 and unrated | 15 | Consumer goods and services, transportation | 8.50% | FX | CS | cs | cs | cs | CS | cs | cs | CS | cs |
| | 16 | Technology, telecommunications | 5.50% | FX | CS | cs | cs | cs | CS | cs | cs | CS | cs |
| | 17 | Health care, utilities, professional and technical | 5.00% | FX | CS | cs | cs | cs | CS | cs | CS | CS | cs |
| | 18 | Other sector | 12.00% | cs | cs | cs | cs | cs | cs | cs | CS | CS | cs |
| | 19 | Listed credit indices with a majority of its individual | 1.50% | FX | FX | FX | Infl | Infl | Infl | Infl | Infl | Infl | Infl |
| | 20 | Listed credit indices with a majority of its individual | 5.00% | FX | cs | cs | cs | cs | cs | cs | CS | CS | cs |



Table 10: Main risk driver of a bond with FX (EUR, USD, GBP, AUD, JPY, SEK, CAD) and Inflation-linked

| | | | | Currencies included in the most liquid currency sub-category as referred to in point (b) of 325bd(7) ity 0,25 years 0,5 years 1 year 2 years 3 years 5 years 10 years 15 years 20 years 30 years | | | | | | | | | | | |
|----------------------|--------|--|----------------|--|-----------|----------|----------|----------|----------|------------|------------|------------|------------|--|--|
| | | | Maturity | 0,25 years | 0,5 years | 1 year | 2 years | 3 years | 5 years | 10 years | 15 years | 20 years | 30 years | | |
| Credit quality | Bucket | Sector | Risk Weight | 1.60% | 1.60% | 1.60% | 1.60% | | 1.60% | | | | 1.60% | | |
| | 1 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | | |
| | 2 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | | |
| | 3 | Regional or local authority and public sector entities | 1.00% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | | |
| Credit | 4 | Financial sector entities including credit institutions | 5.00% | | FX | FX | FX | CS | CS | CS | CS | CS | CS | | |
| quality step 1 to | 5 | Basic materials, energy, industrials, agriculture, | 3.00% | | FX | FX | FX | FX | cs | cs | cs | cs | cs | | |
| 3 | 6 | Consumer goods and services, transportation | 3.00% | | FX | FX | FX | FX | CS | CS | cs | CS | cs | | |
| | 7 | Technology, telecommunications | 2.00% | | FX | FX | FX | FX | FX | cs | CS | CS | cs | | |
| | 8 | Health care, utilities, professional and technical | 1.50% | | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | | |
| L | 9 | Covered bonds issued by credit institutions | 1.00% | | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | | |
| | | Covered bonds issued by credit institutions in third | 1.50% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | | |
| | 10 | Covered bonds issued by credit institutions in third | 2.50% | FX | FX | FX | FX | FX | CS | CS | cs | CS | cs | | |
| | 11 | Central government, including central banks, of | 2.00% | | FX | FX | FX | FX | FX | cs | CS | CS | cs | | |
| | 12 | Regional or local authority and public sector entities | 4.00% | | FX | FX | FX | CS | CS | CS | CS | CS | cs | | |
| Credit | 13 | Financial sector entities including credit institutions | 12.00% | FX | FX | CS | CS | CS | CS | CS | CS | CS | cs | | |
| quality step 4 to | 14 | Basic materials, energy, | 7.00% | | FX | FX | CS | CS | CS | CS | CS | CS | CS | | |
| 6 and | 15 | industrials, agriculture, Consumer goods and | 8.50% | 1.^ | FX | FX | CS | CS | CS | CS | CS | CS | CS | | |
| unrated | 16 | services, transportation Technology, | 5.50% | ΓΛ. | FX | FX | CS | CS | CS | CS | CS | CS | CS | | |
| | 17 | telecommunications Health care, utilities, | 5.00% | 1.^ | FX | FX | FX | CS | CS | CS | CS | CS | CS | | |
| | 18 | professional and technical | 12.00% | ΓΛ. | FX | | | | | | | | | | |
| | 19 | Other sector Listed credit indices with | 1.50% | ΓΛ. | | CS | CS | CS | CS | CS | CS | CS | CS | | |
| | 20 | a majority of its individual Listed credit indices with a majority of its individual | 5.00% | 1.7 | FX FX | FX FX | FX FX | FX CS | FX CS | Infl CS | Infl CS | Infl CS | Infl CS | | |

Table 11: Main risk driver of a bond with FX (CHF, MXN, CNY, etc), and Inflation-linked

| | | | | Currencies not included in the most liquid currency sub-category as referred to in point (b) of Article 325bd(7), but part of the most liquid currency pairs sub-category as referred to in point (c) of 325bd(7) | | | | | | | | | | |
|----------------------|--------|--|----------------|---|-------|----|-------|-------|---------|------|----------|----------|----------|--|
| | | | Maturity | 0,25 years | | | | • | 5 years | | 15 years | 20 years | 30 years | |
| Credit quality | Bucket | Sector | Risk Weight | 1.70% | 1.70% | | 1.60% | 1.60% | | | | | | |
| | 1 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | |
| | 2 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | |
| | 3 | Regional or local authority and public sector entities | 1.00% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | |
| Credit | 4 | Financial sector entities including credit institutions | 5.00% | FX | FX | FX | FX | cs | cs | cs | cs | cs | cs | |
| quality step 1 to | 5 | Basic materials, energy, industrials, agriculture, | 3.00% | FX | FX | FX | FX | FX | cs | cs | CS | cs | CS | |
| 3 | 6 | Consumer goods and services, transportation | 3.00% | FX | FX | FX | FX | FX | cs | cs | CS | cs | cs | |
| | 7 | Technology, telecommunications | 2.00% | FX | FX | FX | FX | FX | FX | cs | CS | cs | cs | |
| | 8 | Health care, utilities, professional and technical | 1.50% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | |
| | 9 | Covered bonds issued by credit institutions | 1.00% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | |
| | 10 | Covered bonds issued by credit institutions in third | 1.50% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | |
| | 10 | Covered bonds issued by credit institutions in third | 2.50% | FX | FX | FX | FX | FX | cs | cs | CS | cs | cs | |
| | 11 | Central government, including central banks, of | 2.00% | FX | FX | FX | FX | FX | FX | cs | CS | cs | CS | |
| | 12 | Regional or local authority and public sector entities | 4.00% | FX | FX | FX | FX | CS | CS | CS | CS | CS | CS | |
| Credit quality | 13 | Financial sector entities including credit institutions | 12.00% | FX | FX | cs | CS | CS | CS | cs | CS | cs | CS | |
| step 4 to | 14 | Basic materials, energy, industrials, agriculture, | 7.00% | FX | FX | FX | CS | CS | CS | CS | CS | CS | CS | |
| 6 and unrated | 15 | Consumer goods and services, transportation | 8.50% | FX | FX | FX | cs | cs | cs | cs | CS | cs | CS | |
| | 16 | Technology, telecommunications | 5.50% | FX | FX | FX | cs | CS | cs | cs | cs | cs | cs | |
| | 17 | Health care, utilities, professional and technical | 5.00% | FX | FX | FX | FX | CS | cs | cs | cs | cs | cs | |
| | 18 | Other sector | 12.00% | FX | FX | cs | cs | cs | cs | cs | cs | cs | cs | |
| | 19 | Listed credit indices with a majority of its individual | 1.50% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl | |
| | 20 | Listed credit indices with a majority of its individual | 5.00% | FX | FX | FX | FX | cs | cs | cs | cs | cs | cs | |



Table 12: Main risk driver of a bond with FX (other currencies), and Inflation-linked

| | | | | The former currents copy and injustion initial | | | | | | | | | |
|----------------------|--------|---|----------------|--|-----------|--------|---------|---------|---------|----------|-----------------------------------|----------|-------------|
| | | | | Currencies | | | | | | | t (b) Article 3 t (c) of 325bd | | not part of |
| | | | Maturity | 0,25 years | 0.5 years | 1 year | 2 years | 3 years | 5 years | 10 years | 15 years | 20 years | 30 years |
| Credit quality | Bucket | Sector | Risk Weight | 1.70% | | | 1.60% | 1.60% | | | | | |
| | 1 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl |
| | 2 | Central government, including central banks, of | 0.50% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl |
| | 3 | Regional or local authority and public sector entities | 1.00% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl |
| Credit | 4 | Financial sector entities including credit institutions | 5.00% | FX | FX | FX | FX | CS | cs | cs | cs | cs | CS |
| quality step 1 to | 5 | Basic materials, energy, industrials, agriculture, | 3.00% | FX | FX | FX | FX | FX | CS | CS | cs | CS | cs |
| 3 | 6 | Consumer goods and services, transportation | 3.00% | FX | FX | FX | FX | FX | CS | CS | cs | CS | cs |
| | 7 | Technology, telecommunications | 2.00% | FX | FX | FX | FX | FX | FX | CS | cs | CS | CS |
| | 8 | Health care, utilities, professional and technical | 1.50% | 1 / | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl |
| | 9 | Covered bonds issued by credit institutions Covered bonds issued by | 1.00% | FX | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl |
| | 10 | credit institutions in third Covered bonds issued by | 1.50% | FA. | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl |
| Г | | credit institutions in third Central government, | 2.50% | 1 / | FX | FX | FX | FX | FX | cs | CS | CS | CS |
| | 11 | including central banks, of Regional or local authority | 2.00% | | FX | FX | FX | FX | FX | cs | CS | CS | CS |
| Credit | 12 | and public sector entities Financial sector entities | 4.00% | - FA | FX | FX | FX | FX | CS | CS | CS | CS | CS |
| quality | 13 | including credit institutions Basic materials, energy, | 12.00% | | FX | FX | CS | CS | CS | CS | CS | CS | CS |
| step 4 to 6 and | 14 | industrials, agriculture, Consumer goods and | 7.00% | | FX | FX | FX | CS | CS | CS | CS | CS | CS |
| unrated | 15 | services, transportation Technology, | 8.50% | - FA | FX | FX | CS | CS | CS | cs | CS | CS | CS |
| | 16 | telecommunications Health care, utilities, | 5.50% | | FX | FX | FX | CS | CS | cs | CS | CS | CS |
| | 17 | professional and technical | 5.00% | FA | FX | FX | FX | CS | CS | cs | CS | CS | CS |
| | 18 | Other sector Listed credit indices with | 12.00% | FA | FX | FX | CS | CS | CS | cs | CS | CS | CS |
| | 19 | a majority of its individual Listed credit indices with | 1.50% | 1 / | FX | FX | FX | FX | FX | Infl | Infl | Infl | Infl |
| | 20 | a majority of its individual | 5.00% | FX | FX | FX | FX | CS | CS | CS | CS | CS | CS |

- 20.Tables 1 to 12 show which risk category/sub-category should be selected among IR, CS, FX and Infl. For FX and Infl, the main risk driver is the FX rate and inflation rate of the currency of the bond, respectively. For IR, the main risk driver is the risk-free rate which corresponds to the currency in which the bond is denominated and one of the maturities set out in Art. 325l(1), selected to match as close as possible the maturity of the bond. For CS, the main risk driver is the issuer credit spread rate which corresponds to the issuer of the bond and one of the maturities set out in Art. 325m(1), selected to match as close as possible the maturity of the bond.
- 21. The institution shall determine whether the position represents a long or a short position on the basis of the following:
 - a. where the main risk driver is the risk-free rate, the position is long if the bond is sold and short if the bond is bought;
 - b. where the main risk driver is the issuer credit spread rate, the position is long if the bond is sold and short if the bond is bought;
 - c. where the main risk driver is the inflation risk factor, the position is long if the bond is bought and short if the bond is sold;
 - d. where the main risk driver is the FX risk factor, the position is long if the bond is bought and short if the bond is sold;
- 22. For floating-rate notes, a similar approach may be used. In fact, it seems disproportionate to set up a whole separate set of tables for floating-rate notes, considering in particular that both the



- identification of the risk-free rate as main risk driver and the identification of the issuer credit spread rate lead to the same outcome in terms of determination of the direction of the position.
- 23. Therefore, for floating-rate notes, institutions must follow the same approach as for fixed-rate bonds, with the following adjustment: if the main risk driver determined under Tables 1 to 12 is the risk-free rate and the residual maturity of the floating-rate note is higher than one year, the main risk driver must be the issuer credit spread rate instead.

Stocks

24.For direct positions on stocks or indices, the identification of the main risk driver should be straightforward. In case the stock is in the institution's reporting currency, there is only one risk driver, the equity stock price. If the stock is in foreign currency, there are two risk drivers, the equity stock price and the FX rate, which move in the same direction. Considering that the Equity risk weights are equal or higher that the FX risk weights, the equity stock price can be assumed to be the main risk driver in all the cases. The stock position is long in the main risk driver if the stock is bought, and short otherwise.

Forward and futures on equity, commodity or FX

25. Similarly to the previous case, for forward positions on equity or commodity, there is only one main risk driver (disregarding interest rates for the purpose of discounting), in case the forward or future is in the institution's reporting currency. If the forward or future is in foreign currency, there are two risk drivers, but FX moves in the same direction as the other risk driver. The forward or future position is long in the main risk driver if the forward or future is bought, and short otherwise.

IR swaps

26. Similarly to the previous cases, for simple IR swaps there is only one main risk driver, IR, in case the swap is in the institution's reporting currency. If the IR swap is in foreign currency, there are two risk drivers, but FX moves in the same direction as the other risk driver. If the bank receives fixed rate and pay floating rate, then the position is short (as for the fixed-rate bond holder). If the bank receives floating rate and pay fixed rate, then the position is long (as for the fixed-rate bond seller).

Plain vanilla options on equity and commodity

- 27. Plain vanilla call options can be treated similarly to the previous cases. In fact, they are long in the main risk driver (i.e. the underlying) when they are bought and short when they are sold. If plain vanilla call options are in foreign currency, the FX risk driver moves in the same direction as the other risk driver. Also for plain vanilla put options in institution's reporting currency, the identification of the main risk driver as the risk driver of the underlying should be relatively straightforward. In such a case, in fact, they are short in the main risk driver when they are bought and long when they are sold. If plain vanilla put options are in foreign currency, things get more complicated as the FX risk driver moves in the opposite direction as the other risk driver.
- 28. For this latter case, it has however been considered that, under the standard Black-Scholes-Merton model (where S is the value of the underlying, V the value of the option, N() is the standard normal



cumulative distribution function, σ is the volatility of the option, τ is the time to maturity and the risk-free rate and dividend yield are assumed to be 0 for simplicity):

$$Sens_S^{FRTB} = \frac{V(S \cdot 1.01, ...) - V(...)}{0.01} = -S N(-d_1)$$

and

$$Sens_{FX}^{FRTB} = V = K N(-d_2) - S N(-d_1).$$

where
$$d_1 = \frac{\ln(S/K)}{\sigma\sqrt{\tau}} + \frac{1}{2}\sigma\sqrt{\tau}$$
 and $d_2 = \frac{\ln(S/K)}{\sigma\sqrt{\tau}} - \frac{1}{2}\sigma\sqrt{\tau}$.

Therefore, it needs to be checked when the following condition holds true:

$$RW_{FX} \cdot |Sens_{FX}^{FRTB}| = RW_{FX} \cdot |KN(-d_2) - SN(-d_1)| \le RW_S \cdot |-SN(-d_1)| = RW_S \cdot |Sens_S^{FRTB}|.$$

Getting rid of the absolute values and rearranging terms, the condition can be expressed in terms of $^S/_K$ (i.e. in terms of a measure of moneyness of the option):

$$\frac{RW_{FX}}{RW_{FX}+RW_S} \le \frac{N(-d_1)}{N(-d_2)} \frac{S}{K}.$$

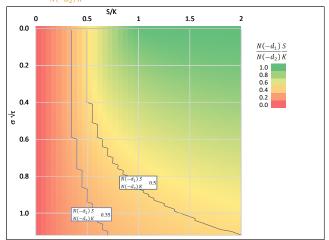


Figure 1: Values of $\frac{N(-d_1)}{N(-d_2)} \frac{S}{K}$, expressed as a function of $S/K \in (0, 2]$ and $\sigma \sqrt{\tau} \in (0, 1.12]^7$

In general, the ratio $\frac{RW_{FX}}{RW_{FX}+RW_S}$ is small compared to $\frac{N(-d_1)}{N(-d_2)}\frac{S}{K}$. In fact, on the one hand, for many commonly used currencies RW_{FX} is $10.6\%^8$ (for US Dollar, Pound Sterling, Swiss Franc, Japanese Yen, etc.) or lower (for Danish Krone and Bulgarian Lev). On the other hand, RW_S is 30% or higher for single stocks or 20% or higher for commodities, in accordance with Articles 325ap and 325as of the CRR, respectively. Therefore, in general $\frac{RW_{FX}}{RW_{FX}+RW_S}$ is 0.26 or lower for single stocks and 0.35 or

⁷ i.e. $\sigma \sqrt{\tau} = 50\% \sqrt{5} = 1.12$

⁸ i.e. $RW_{FX} = 15\%\sqrt{2} = 10.6\%$, in accordance with Article 325av(4) of the CRR.



lower for commodities. Figure 1 shows that in the majority of cases analysed (i.e. for $\sigma \leq 50\%$, $\tau \leq 3.5$ and $S/K \geq \frac{1}{2}$), $\frac{N(-d_1)}{N(-d_2)} \frac{S}{K}$ is equal to or higher than 0.35 and the condition above is verified.

It should be also noted that RW_{FX} can be at most 15%, while the lowest value of RW_S is 15% where S is a large market capitalisation, advanced economy index. Therefore $\frac{RW_{FX}}{RW_{FX}+RW_S}$ can be at most 0.5. Figure 1 shows that for reasonable values of σ , τ and S/K (e.g. $\sigma \le 40\%$, $\tau \le 1.5$ and $S/K \ge \frac{1}{2}$), $\frac{N(-d_1)}{N(-d_2)}\frac{S}{K}$ is equal to or higher than 0.5 and the condition above is verified.

29.As such, one possible way to treat all plain vanilla options (including for simplicity all put options in foreign currency) is simply to disregard the FX component for the determination of the main risk driver.

4. Draft regulatory technical standards

In between the text of the draft RTS/ITS/Guidelines/advice that follows, further explanations on specific aspects of the proposed text are occasionally provided, which either offer examples or provide the rationale behind a provision, or set out specific questions for the consultation process. Where this is the case, this explanatory text appears in a framed text box.

COMMISSION DELEGATED REGULATION (EU) .../...

of XXX

supplementing Regulation (EU) No 575/2013 of the European Parliament and of the Council with regard to regulatory technical standards specifying the method for identifying the main risk driver of a position and for determining whether a transaction represents a long or a short position as referred to in Articles 94(3), 273a(3) and 325a(2), under Article 94(10)

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union, Having regard to Regulation (EU) No 575/2013 of 26 June 2013 of the European Parliament and of the Council on prudential requirements for credit institutions and amending Regulation (EU) No 648/20129, and in particular the third subparagraph of Article 94(10) thereof, Whereas:

- (1) The size of the business constitutes a proxy for the degree of sophistication an institution should have in its capital calculations. The calculation of the size of the on- and off-balance-sheet business is requested by in Articles 94(1), 273a(1) and (2), and 325a(1) of Regulation (EU) No 575/2013, in relation to the trading book business, the derivative business and the business subject to market risk. Those calculations are needed for identifying institutions allowed to use simplified methods for the calculation of own funds requirements for market and counterparty credit risks. The identification of the main risk driver of a position and, on the basis of that, the determination of whether a transaction represents a long or a short position, are fundamental for the correct calculation of the size of the business. In consideration of the importance of those calculations for small and non-complex institutions, the method for identifying the main risk driver of a position and for determining whether a transaction represents a long or a short position should be proportionate and adequate to institutions with different degrees of complexity.
- (2) The method for determining whether a transaction represents a long or a short position should be consistent with the method for determining whether a transaction is a long or short position for transactions referred to in Article 277(3) of Regulation (EU) No 575/2013, developed for the regulatory technical standards mandated in accordance with Article 279a(3), point (b), of that Regulation.
- (3) In order to produce precise results, the method for identifying the main risk driver of a non-derivative position should be based on the calculation of the risk-weighted delta sensitivities to risk factors, as set out in Sections 2, 3 and 6 of Part Three, Title IV, Chapter 1a of Regulation (EU) No 575/2013. In addition, the method for identifying the main risk driver of a position should be consistent with the method for identifying the primary risk driver and the most material risk driver in derivative transactions, developed for the regulatory technical standards mandated in accordance with Article 277(5), point (b) of that Regulation.
- (4) The method for determining whether a transaction represents a long or a short position should also be based on the calculation of the risk-weighted delta sensitivity to the main

a

⁹ OJ L 176, 27.6.2013, p. 1

- risk driver. Where the institution does not have the capacity to calculate the risk-weighted delta sensitivity, the determination should be made by assessing the trading or hedging purpose of the transaction.
- (5) Where a small and non-complex institution does not have the capacity to calculate the risk-weighted delta sensitivities or to use the methods developed for the regulatory technical standards mandated under Article 277(5), point (b) of Regulation (EU) No 575/2013, a simplified approach should be made available for identifying the main risk driver and for determining whether a transaction represents a long or a short position, to be used alongside the main method. The simplified approach should lead to results consistent with the risk-weighted delta sensitivities approach. The simplified approach should be suitable for being applied to the instruments that small and non-complex institutions normally trade.
- (6) This Regulation is based on the draft regulatory technical standards submitted to the Commission by the European Banking Authority.
- (7) The European Banking Authority has conducted open public consultations on the draft regulatory technical standards on which this Regulation is based, analysed the potential related costs and benefits and requested the advice of the Banking Stakeholder Group established in accordance with Article 37 of Regulation (EU) No 1093/2010 of the European Parliament and of the Council¹⁰,

HAS ADOPTED THIS REGULATION:

Article 1

Method for identifying the risk drivers of a non-derivative position

For the purpose of identifying the main risk driver of a non-derivative position assigned to the trading book, institutions shall identify all the risk drivers of the position by determining which risk factors are principal determinants of the change in value of the position, having regard to at least the risk factors referred to in Articles 3251 to 325q of Regulation (EU) No 575/2013. The risk factors identified by the institutions shall be the risk drivers of the position.

Article 2

Method for identifying the main risk driver of a non-derivative position

- 1. Where the institution has identified, in accordance with Article 1, only one risk driver of a non-derivative position assigned to the trading book, that risk driver shall be the main risk driver.
- 2. Where the institution has identified, in accordance with Article 1, more than one risk driver of a non-derivative position assigned to the trading book, the institution shall identify the main risk driver of the position by applying the following steps in sequence:
- (a) the institution shall calculate the delta risk sensitivities in accordance with Article 325r of Regulation (EU) No 575/2013 for each risk driver identified in accordance with Article 1;
- (b) the institution shall calculate the weighted sensitivities in accordance with the formula laid down in Article 325f(6) of that Regulation, based on the sensitivities calculated in accordance with point (a);

Regulation (EU) No 1093/2010 of the European Parliament and of the Council of 24 November 2010 establishing a European Supervisory Authority (European Banking Authority), amending Decision No 716/2009/EC and repealing Commission Decision 2009/78/EC (OJ L 331, 15.12.2010, p. 12–47).

(c) the main risk driver shall be identified as the risk driver corresponding to the highest absolute value of the weighted sensitivities calculated in accordance with point (b).

Article 3

Method for determining whether a non-derivative transaction represents a long or a short position

For the purpose of determining whether a non-derivative position represents a long or a short position as referred to in Articles 94(3) and 325a(2) of Regulation (EU) No 575/2013, the institution shall apply either of the following methods:

- (a) the institution shall calculate the delta risk sensitivity of the main risk driver in accordance with Article 325r of Regulation (EU) No 575/2013 and identify the transaction as a long position in that risk driver where the corresponding delta risk sensitivity is positive or as a short position in that risk driver where the corresponding delta risk sensitivity is negative;
- (b) the institution shall assess the dependence of the value of the position on the main risk driver by considering the trading or hedging purpose of the transaction with respect to that risk driver and identify the transaction as either long or short position on the basis of that assessment.

Explanatory text for consultation purposes

For non-derivative positions, the proposed approach for identifying the main risk driver hinges on the use of FRTB SA risk-weighted sensitivities (which is also one possibility under the approach for derivatives). The approach for determining the direction of the non-derivative position is based on the approach set out in the RTS on SA-CCR (as suggested in the legal mandate) and therefore very similar to the one proposed for derivative positions.

Question

Q1. Do you agree with the general method for identifying the main risk driver of a non-derivative position and for determining its direction?

Article 4

Simplified method for identifying the main risk driver of a non-derivative position and for determining whether the non-derivative transaction represents a long or a short position

- 1. By way of derogation from Articles 1 to 3, an institution that was eligible for the treatment set out in Articles 94(1) or 325a(1) of Regulation (EU) No 575/2013 on the previous calculation date, may identify the main risk driver of a non-derivative position referred to in paragraphs 2 and 3 and whether such position represents a long or a short position, by applying the approaches set out therein.
- 2. For bonds which consist in fixed-rate debt instruments without optionality features, the following approach shall be used:
- (a) the institution shall identify the main risk driver depending on the credit quality step and sector of the bond referred to in Article 325ah of Regulation (EU) No 575/2013 and the residual maturity of the bond, on the basis of the following tables in the Annex to this Regulation:
- (i) for bonds denominated in the institution's reporting currency, Table 1 if the cash flows of the bond are not functionally dependent on inflation rates, or Table 2 if the cash flows of the bond are functionally dependent on inflation rates;

- (ii) for bonds denominated in a currency that, together with the institution's reporting currency, constitute a currency pair subject to the treatment set out in Article 325av(2), point (a) of Regulation (EU) No 575/2013, Table 3 if the cash flows of the bond are not functionally dependent on inflation rates, or Table 4 if the cash flows of the bond are functionally dependent on inflation rates;
- (iii) for bonds denominated in a currency that, together with the institution's reporting currency, constitute a currency pair subject to the treatment set out in Article 325av(2), point (b) of Regulation (EU) No 575/2013, Table 5 if the cash flows of the bond are not functionally dependent on inflation rates, or Table 6 if the cash flows of the bond are functionally dependent on inflation rates;
- (iv) for bonds denominated in a currency included in the most liquid currency sub-category as referred to in point (b) of 325bd(7) of Regulation (EU) No 575/2013, Table 7 if the cash flows of the bond are not functionally dependent on inflation rates, or Table 8 if the cash flows of the bond are functionally dependent on inflation rates;
- (v) for bonds denominated in a currency not included in the most liquid currency sub-category as referred to in point (b) of Article 325bd(7) of Regulation (EU) No 575/2013, but part of the most liquid currency pairs sub-category as referred to in point (c) of 325bd(7) of that Regulation, Table 9 if the cash flows of the bond are not functionally dependent on inflation rates, or Table 10 if the cash flows of the bond are functionally dependent on inflation rates;
- (vi) for bonds denominated in a currency neither included in the most liquid currency sub-category as referred to in point (b) of Article 325bd(7) of Regulation (EU) No 575/2013 nor part of the most liquid currency pairs sub-category as referred to in point (c) of 325bd(7) of that Regulation, Table 11 if the cash flows of the bond are not functionally dependent on inflation rates, or Table 12 if the cash flows of the bond are functionally dependent on inflation rates;
- (b) where the main risk driver determined under point (a) is the risk-free rate, it shall be in the currency in which the bond is denominated and with one of the maturities set out in Article 325l(1) of Regulation (EU) No 575/2013, selected to match as close as possible the maturity of the bond.
- (c) where the main risk driver determined under point (a) is the issuer credit spread rate, it shall be the credit spread of the issuer of the bond and with one of the maturities set out in Article 325m(1) of Regulation (EU) No 575/2013, selected to match as close as possible the maturity of the bond.
- (d) the institution shall determine whether the position represents a long or a short position on the basis of the following:
- (i) where the main risk driver determined under points (a) to (c) is the risk-free rate or the issuer credit spread rate, the position is long if the bond is sold and short if the bond is bought;
- (ii) where the main risk driver determined under points (a) to (c) is the inflation rate or the spot exchange rate between the currency in which the bond is denominated and the institution's reporting currency, the position is long if the bond is bought and short if the bond is sold.
- 3. For bonds which consist in floating-rate debt instruments without optionality features, the approach set out in paragraph 2 shall be used, with the following adjustment: if the main risk driver determined under paragraph 2, point (a), is the risk-free rate and the residual maturity of the bond is higher than one year, the main risk driver shall be the issuer credit spread rate instead, determined in accordance with paragraph 2, point (c).
- 4. For stocks, the main risk driver shall be the equity spot price. The position is long if the stock is bought and short if the stock is sold.

Explanatory text for consultation purposes

Taking into consideration the need for proportionality in the approach for the identification of the main risk driver and the direction of the position, in particular, for banks which are and have always been exempted from using the FRTB SA, a simplified method has been included.

The simplified method for non-derivative positions covers fixed-rate bonds, floating-rate notes and stocks. For bonds and notes, the simplified approach is based on the currency in which the bond is denominated, whether the cash flows are dependent on inflation rates, the residual maturity of the bond and the credit quality and sector of the issuer.

Questions

- 2. Do you agree with the analysis proposed in the background section and with the inclusion of this simplified method for fixed-rate bonds, floating-rate notes and stocks?
- 3. Do you think that other non-derivative instruments should be included in the simplified method? If yes, please provide rationale and proposed treatment.

Article 5

Method for identifying the risk drivers of a derivative position

For the purpose of identifying the main risk driver of a derivative position, institutions shall first identify all the risk drivers of the transaction, in accordance with Article 1 of Commission Delegated Regulation (EU) 2021/931, whether the transaction has one or more than one material risk driver, in accordance with Articles 2 and 3 of that Regulation, the material risk drivers of the transaction and the most material of those risk drivers, in accordance with Articles 4 of that Regulation.

Article 6

Method for identifying the main risk driver of a derivative position

- 1. Where the institution, using the methods referred to in Article 5, identifies a derivative transaction with only one material risk driver, the main risk driver shall be that risk driver.
- 2. Where the institution, using the methods referred to in Article 5, identifies a derivative transaction with more than one material risk driver, and the material risk drivers identified belong to only one risk category referred to in Article 277(1) of Regulation (EU) No 575/2013, the main risk driver shall be the most material risk driver in that risk category.
- 3. Where the institution, using the methods referred to in Article 5, identifies a derivative transaction with more than one material risk driver, and the material risk drivers identified belong to two or more risk categories referred to in Article 277(1) of Regulation (EU) No 575/2013, the main risk driver shall be identified using one of the following methods:
- (a) where the material risk drivers have been identified by the institution in accordance with Article 4(2) or 4(4) of Delegated Regulation (EU) 2021/931, the main risk driver shall be the most material risk driver corresponding to the highest risk category add-on from those referred to in Articles 280a to 280f of Regulation (EU) No 575/2013;
- (b) where the material risk drivers have been identified by the institution in accordance with Article 4(3) of Delegated Regulation (EU) 2021/931, the main risk driver shall be identified as the most material risk driver corresponding to the highest absolute value of the weighted sensitivities referred to in Article 4(3), point (b), of that Regulation.
- 4. Where an institution applies one of the methods set out in Article 4 of Delegated Regulation (EU) 2021/931 for the calculation of the exposure value of a given derivative transaction, the same method shall be used for the purpose to identify the main risk driver of that transaction.

Article 7

Method for determining whether a derivative transaction represents a long or a short position

For the purpose of determining whether a derivative position represents a long or a short position as referred to in Articles 94(3), 273a(3) and 325a(2) of Regulation (EU) No 575/2013, institutions shall

apply either of the methods set out in Article 6 of Delegated Regulation (EU) 2021/931 to the main risk driver of the transaction.

Explanatory text for consultation purposes

For derivative positions, the proposed approach for identifying the main risk driver of a derivative position is fully aligned with the RTS on SA-CCR. In fact, institutions may use either the FRTB SA risk-weighted sensitivities or the SA-CCR risk category add-ons to determine the main risk driver. The approach for determining the direction of the derivative position is also fully aligned with the RTS on SA-CCR (as suggested in the legal mandate).

Question

4. Do you agree with the general method for identifying the main risk driver of a derivative position and for determining its direction?

Article 8

Simplified method for identifying the main risk driver of a derivative position and for determining whether the derivative transaction represents a long or a short position

- 1. By way of derogation from Articles 5 to 7, an institution that was eligible for the treatment set out in Article 273a(2) of Regulation (EU) No 575/2013 on the previous calculation date, may identify the main risk driver of a derivative position referred to in paragraphs 2 to 7 and whether such position represents a long or a short position, by applying the approaches set out therein.
- 2. For futures or forwards on stocks or futures or forwards on stock indices, the institution shall determine the main risk driver as the equity spot price or the index spot price, respectively.

The position is long if the futures or forwards are bought and short if they are sold.

3. For futures or forwards on exchanges between the institution's reporting currency and a foreign currency, the institution shall determine the main risk driver as the spot exchange rate between the foreign currency and the institution's reporting currency.

The position is long if the foreign currency is bought and short if the foreign currency is sold.

- 4. For futures or forwards on commodities, the institution shall determine the main risk driver as the commodity spot price which corresponds to the following:
- (a) the commodity type specified in the futures or forward contract;
- (b) one of the maturities set out in Article 325p(2) of Regulation (EU) No 575/2013, selected to match as close as possible the maturity of the futures.

The position is long if the commodities are bought and short if they are sold.

5. For plain-vanilla call options with a single underlying stock or stock index or plain-vanilla put options with a single underlying stock or stock index, the institution shall determine the main risk driver as the equity spot price or the index spot price, respectively.

The position is long if the call option is bought and short if the call option is sold. The position is long if the put option is sold and short if the put option is bought.

- 6. For plain-vanilla call options with a single underlying commodity or plain-vanilla put options with a single underlying commodity, the institution shall determine the main risk driver as the commodity spot price which corresponds to the following:
- (a) the commodity type specified in the option contract;
- (b) one of the maturities set out in Article 325p(2) of Regulation (EU) No 575/2013, selected to match as close as possible the maturity of the option.

The position is long if the call option is bought and short if the call option is sold. The position is long if the put option is sold and short if the put option is bought.

- 7. For single-name credit default swaps, the institution shall determine the main risk driver as the issuer credit spread rate which corresponds to the following:
- (a) the issuer referenced in the swap contract;
- (b) one of the maturities set out in Article 325m(1) of Regulation (EU) No 575/2013, selected to match as close as possible the maturity of the swap.

The position is long if the protection is bought and short if the protection is sold.

- 8. For interest rate swaps where one counterparty receives floating-rate interest and pays fixed-rate interest, the institution shall determine the main risk driver as the risk-free rate which corresponds to the following:
- (a) the currency referenced in the swap contract;
- (b) one of the maturities set out in Article 325l(1) of Regulation (EU) No 575/2013, selected to match as close as possible the maturity of the swap.

The position is long if the institution pays fixed-rate interest and short if the institution receives fixed-rate interest.

Explanatory text for consultation purposes

Taking into consideration the need for proportionality in the approach for the identification of the main risk driver and the direction of the position, in particular, for banks which are and have always been exempted from using the FRTB SA or SA-CCR, a simplified method has been included.

The simplified method for derivative positions covers forward and futures positions, IR swaps, CDS and plain vanilla options.

Questions

- 5. Do you agree with the analysis proposed in the background section and with the inclusion of this simplified treatment for futures, options and swaps?
- 6. Do you think that other derivative instruments should be included in the simplified method? If yes, please provide rationale and proposed treatment.

Article 9

Entry into force

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

This Regulation shall be binding in its entirety and directly applicable in all Member States. Done at Brussels,

For the Commission The President



ANNEX

Table 1

| Credit quality | Maturity | less or equal to 0,375 years | greater than 0,375 years and less or | greater than 0,75 years and less or equal to 1.5 year | greater than 1,5 year and less or equal | 2,5 years and | greater than 4 years and less or equal to 7,5 | greater than 7,5 years and less or equal | greater than 12,5 years and less or equal to 17.5 years | greater than 17,5 years and less or equal | greater than 25 years |
|--|---|---------------------------------|--|--|---|-------------------------------|---|--|--|---|------------------------------|
| All | Central government, including central banks, of Member States | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| | Regional or local authority and public sector entities | Risk-free rate | Risk-free rate | Risk-free rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Co. Fr | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit quality step 1 to 3 | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Consumer goods and services, transportation and storage, administrative and support service activities | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Covered bonds issued by credit institutions established in Member States | Risk-free rate | Risk-free rate | Risk-free rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit quality step 1 Credit | Covered bonds issued by credit institutions in third countries Credit quality step 1 | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| quality steps 2 to 3 | Covered bonds issued by credit institutions in third countries Credit quality step 2 to 3 | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Central go verament, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Regional or local authority and public sector entities | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| quality step 4 to 6 and unrated | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| dinacci | Consumer goods and services, transportation and storage, administrative and support service activities | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Techno logy, telecommunications | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Other sector | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being investment grade | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being non- investment grade or unrated | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |

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| Credit quality | Maturity Sector | less or equal to 0,375 years | greater than 0,375 years and less or equal to 0.75 | 0,75 years and | greater than 1,5 year and less or equal to 2,5 years | 2,5 years and | greater than 4 years and less or equal to 7,5 years | greater than 7,5 years and less or equal to 12.5 years | | greater than 17,5 years and less or equal to 25 years | greater than 25 years |
|--------------------------------------|---|---------------------------------|---|------------------------------|---|-------------------------------|--|---|------------------------------|--|------------------------------|
| All | Central government, including central banks, of Member States | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Regional or local authority and public sector entities | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| Credit quality step 1 to 3 | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| | Consumer goods and services, transportation and storage, administrative and support service activities | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Covered bonds issued by credit institutions established in Member States | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit quality step 1 | Covered bonds issued by credit institutions in third countries Credit quality step 1 | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit quality steps 2 to 3 | Covered bonds issued by credit institutions in third countries Credit quality step 2 to 3 | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Regional or local authority and public sector entities | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| quality step 4 to 6 and | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| unrated | Consumer goods and services, transportation and storage, administrative and support service activities | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Other sector | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being investment grade | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Listed cred it indices with a majority of its individual constituents being non- investment grade or unrated | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |



| Credit quality | Maturity | less or equal to 0,375 years | greater than 0,375 years and less or equal to 0.75 | greater than 0,75 years and less or equal to 1.5 year | greater than 1,5 year and less or equal to 2,5 years | 2,5 years and | greater than 4 years and less or equal to 7,5 years | greater than 7,5 years and less or equal to 12.5 years | greater than 12,5 years and less or equal to 17.5 years | greater than 17,5 years and less or equal to 25 years | greater than 25 years |
|--------------------------------------|---|---------------------------------|---|--|---|-------------------------------|--|---|--|--|------------------------------|
| All | Central government, including central banks, of Member States | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| Con the | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| Credit quality step 1 to 3 | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| | Covered bonds issued by credit institutions established in Member States | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| Credit quality step 1 | Covered bonds issued by credit institutions in third countries Credit quality step 1 | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit quality steps 2 to 3 | Covered bonds is sued by credit institutions in third countries Credit quality step 2 to 3 | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| quality step 4 to 6 and | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| unrated | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Other sector | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being investment grade | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being non- investment grade or unrated | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | | | | | | | | | | | |



| Credit quality | Maturity Sector | less or equal to 0,375 years | | greater than 0,75 years and less or equal to 1,5 year | greater than 1,5 year and less or equal to 2.5 years | 2,5 years and | greater than 4 years and less or equal to 7,5 years | greater than 7,5 years and less or equal to 12.5 years | less or equal | | greater than 25 years |
|---------------------------------|---|---------------------------------|------------------------------|--|---|-------------------------------|--|---|------------------------------|-------------------------------|-------------------------------|
| All | Central government, including central banks, of Member States | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| quality step 1 to | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Covered bonds issued by credit institutions established in Member States | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit quality step 1 | Covered bonds issued by credit institutions in third countries Credit quality step 1 | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit quality steps 2 to | Covered bonds is sued by credit institutions in third countries Credit quality step 2 to 3 | FX rate | FX rate | FX rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| quality step 4 to 6 and | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| unrated | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Other sector | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being investment grade | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Listed credit indices with a majority of its individual constituents being non- investment grade or unrated | FX rate | FX rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |



| Credit quality | Maturity Sector | less or equal to 0,375 years | greater than 0,375 years and less or equal to 0.75 | greater than 0,75 years and less or equal to 1.5 year | greater than 1,5 year and less or equal to 2.5 years | 2,5 years and | greater than 4 years and less or equal to 7,5 years | greater than 7,5 years and less or equal to 12.5 years | 12,5 years and | greater than 17,5 years and less or equal to 25 years | greater than 25 years |
|--------------------------------------|---|---------------------------------|---|--|---|------------------------------|--|---|------------------------------|--|------------------------------|
| All | Central government, including central banks, of Member States | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| Condit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit quality step 1 to 3 | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Covered bonds issued by credit institutions established in Member States | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| Credit quality step 1 | Covered bonds issued by credit institutions in third countries Credit quality step 1 | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit quality steps 2 to 3 | Covered bonds is sued by credit institutions in third countries Credit quality step 2 to 3 | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| quality step 4 to 6 and | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| unrated | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Other sector | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being investment grade | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being non-investment grade or unrated | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |



| Credit quality | Maturity Sector | less or equal to 0,375 years | greater than 0,375 years and less or equal to 0,75 | greater than 0,75 years and less or equal to 1.5 year | | 2,5 years and | greater than 4 years and less or equal to 7,5 years | greater than 7,5 years and less or equal to 12.5 years | greater than 12,5 years and less or equal to 17.5 years | greater than 17,5 years and less or equal to 25 years | |
|---------------------------------|--|---------------------------------|---|--|-------------------------------|-------------------------------|--|---|--|--|-------------------------------|
| All | Central government, including central banks, of Member States | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central go vernment, a regional government or a local authority and promotional lenders | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| quality step 1 to | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | Is suer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate |
| | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| | Health care, utilities, pro fessional and technical activities | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Covered bonds issued by credit institutions established in Member States | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit quality step 1 | Covered bonds issued by credit institutions in third countries Credit quality step 1 | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit quality steps 2 to | Covered bonds issued by credit institutions in third countries Credit quality step 2 to 3 | FX rate | FX rate | Is suer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| quality step 4 to 6 and | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| unrated | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate |
| | Technology, telecommunications | FX rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| | Other sector | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being investment grade | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Listed credit indices with a majority of its individual constituents being non- investment grade or unrated | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |



| Credit quality | Maturity Sector | less or equal to 0,375 years | greater than 0,375 years and less or equal to 0.75 | greater than 0,75 years and less or equal to 1.5 year | greater than 1,5 year and less or equal to 2.5 years | 2,5 years and | greater than 4 years and less or equal to 7,5 years | greater than 7,5 years and less or equal to 12.5 years | greater than 12,5 years and less or equal to 17.5 years | greater than 17,5 years and less or equal to 25 years | |
|---------------------------------|---|---------------------------------|---|--|---|------------------------------|--|---|--|--|------------------------------|
| All | Central government, including central banks, of Member States | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| Credit | Financial sector entities including cred it institutions incorporated or established by a central go vernment, a regional government or a local authority and promotional lenders | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| quality step 1 to 3 | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| | Covered bonds is sued by credit institutions established in Member States | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit quality step 1 | Covered bonds is sued by credit institutions in third countries Credit quality step 1 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| Credit quality steps 2 to | Covered bonds is sued by credit institutions in third countries Credit quality step 2 to 3 | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| quality step 4 to 6 and | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| unrated | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Other sector | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being investment grade | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being non-investment grade or unrated | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |



| Credit quality | Maturity | less or equal to 0,375 years | | | | 2,5 years and | greater than 4 years and less or equal to 7,5 years | greater than 7,5 years and less or equal to 12.5 years | 12,5 years and less or equal | 17,5 years and less or equal | 25 years |
|---------------------------------|---|---------------------------------|---------|-------------------------------|------------------------------|-------------------------------|--|---|---------------------------------|---------------------------------|------------------------------|
| All | Central government, including central banks, of Member States | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| quality step 1 to | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Covered bonds issued by credit institutions established in Member States | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit quality step 1 | Covered bonds issued by credit institutions in third countries Credit quality step 1 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit quality steps 2 to | Covered bonds issued by credit institutions in third countries Credit quality step 2 to 3 | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | FX rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| quality step 4 to 6 and | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| unrated | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Other sector | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being investment grade | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Listed credit indices with a majority of its individual constituents being non- investment grade or unrated | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |



| Credit quality | Maturity | less or equal to 0,375 years | | | | 2,5 years and | greater than 4 years and less or equal to 7,5 years | 7,5 years and less or equal | | | 25 years |
|---------------------------------|---|---------------------------------|---------|------------------------------|-------------------------------|-------------------------------|--|--------------------------------|------------------------------|-------------------------------|------------------------------|
| All | Central government, including central banks, of Member States | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| quality step 1 to | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| | Covered bonds issued by credit institutions established in Member States | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate | Risk-free rate |
| Credit quality step 1 | Covered bonds is sued by credit institutions in third countries Credit quality step 1 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| Credit quality steps 2 to | Covered bonds is sued by credit institutions in third countries Credit quality step 2 to 3 | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| quality step 4 to 6 and | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | Is suer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| unrated | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Other sector | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being investment grade | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed cred it indices with a majority of its individual constituents being non- investment grade or unrated | FX rate | FX rate | FX rate | FX rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |



| Credit quality | Maturity Sector | less or equal to 0,375 years | greater than 0,375 years and less or equal to 0.75 | 0,75 years and | greater than 1,5 year and less or equal to 2,5 years | 2,5 years and | greater than 4 years and less or equal to 7,5 years | 7,5 years and less or equal | 12,5 years and | | |
|--------------------------------------|---|---------------------------------|---|-------------------------------|---|-------------------------------|--|--------------------------------|------------------------------|-------------------------------|-------------------------------|
| All | Central government, including central banks, of Member States | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| a 15 | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Is suer credit spread rate |
| Credit quality step 1 to 3 | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Covered bonds issued by credit institutions established in Member States | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit quality step 1 | Covered bonds is sued by credit institutions in third countries Credit quality step 1 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit quality steps 2 to 3 | Covered bonds is sued by credit institutions in third countries Credit quality step 2 to 3 | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | FX rate | Is suer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| quality step 4 to 6 and | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate |
| unrated | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| c | Other sector | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being investment grade | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Listed credit indices with a majority of its individual constituents being non- investment grade or unrated | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |



| Credit quality | Maturity Sector | less or equal to 0,375 years | | greater than 0,75 years and less or equal to 1.5 year | greater than 1,5 year and less or equal to 2.5 years | 2,5 years and | years and less | greater than 7,5 years and less or equal to 12.5 years | 12,5 years and less or equal | 17,5 years and less or equal | greater than 25 years |
|-------------------------------------|---|---------------------------------|---------|--|---|------------------------------|------------------------------|---|---------------------------------|---------------------------------|-------------------------------|
| All | Central government, including central banks, of Member States | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate |
| Condit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit quality step 1 to 3 | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| | Covered bonds issued by credit institutions established in Member States | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Risk-free rate | Risk-free rate | Risk-free rate |
| Credit quality step 1 | Covered bonds issued by credit institutions in third countries Credit quality step 1 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| Credit quality steps 2 to | Covered bonds issued by credit institutions in third countries Credit quality step 2 to 3 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| quality step 4 to 6 and | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| unrated | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| | Other sector | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being investment grade | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being non- investment grade or unrated | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |



| Credit quality | Maturity Sector | less or equal to 0,375 years | greater than 0,375 years and less or equal to 0.75 | greater than 0,75 years and less or equal | greater than 1,5 year and less or equal to 2.5 years | 2,5 years and | or equal to 7,5 | greater than 7,5 years and less or equal to 12.5 years | greater than 12,5 years and less or equal to 17.5 years | | 25 years |
|-------------------------------------|---|---------------------------------|---|---|---|------------------------------|------------------------------|---|--|------------------------------|------------------------------|
| All | Central government, including central banks, of Member States | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Condit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit quality step 1 to 3 | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Covered bonds issued by credit institutions established in Member States | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit quality step 1 | Covered bonds issued by credit institutions in third countries Credit quality step 1 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| Credit quality steps 2 to | Covered bonds issued by credit institutions in third countries Credit quality step 2 to 3 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Central government, including central banks, of a third country, multilateral development banks and international organisations referred to in Article 117(2) or Article 118 | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Regional or local authority and public sector entities | FX rate | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| Credit | Financial sector entities including credit institutions incorporated or established by a central government, a regional government or a local authority and promotional lenders | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| quality step 4 to 6 and | Basic materials, energy, industrials, agriculture, manufacturing, mining and quarrying | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| unrated | Consumer goods and services, transportation and storage, administrative and support service activities | FX rate | FX rate | FX rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Technology, telecommunications | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Health care, utilities, professional and technical activities | FX rate | FX rate | FX rate | FX rate | | | Issuer credit spread rate | | | |
| | Other sector | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |
| | Listed credit indices with a majority of its individual constituents being investment grade | FX rate | FX rate | FX rate | FX rate | FX rate | FX rate | Inflation rate | Inflation rate | Inflation rate | Inflation rate |
| | Listed credit indices with a majority of its individual constituents being non- investment grade or unrated | FX rate | FX rate | FX rate | FX rate | Issuer credit spread rate | Issuer credit spread rate | Issuer credit spread rate | Is suer credit spread rate | Issuer credit spread rate | Issuer credit spread rate |



5. Accompanying documents

5.1 Draft cost-benefit analysis / impact assessment

Article 94(10) of the CRR mandates the EBA to develop draft RTS to specify the method for identifying the main risk driver of a position and for determining whether a transaction represents a long or a short position as referred to in Articles 94(3), 273a(3) and 325a(2).

Article 10(1) of Regulation (EU) No 1093/2010 (EBA Regulation) provides that any RTS developed by the EBA should be accompanied by an analysis of the potential related costs and benefits. This analysis should provide an overview of the findings regarding the problem to be dealt with, the options proposed and the potential impact of these options.

This section presents the cost-benefit analysis of the main policy options included in the draft RTS. The analysis is high level and of a qualitative nature.

A. Background and Problem identification

Under the CRR, institutions may calculate the own funds requirements for market risk and counterparty credit risk using simplified methods, provided that the size of their on- and off-balance sheet business falls below certain thresholds. More specifically, institutions have to calculate:

- the size of the on- and off-balance sheet trading business to assess if they are eligible for the derogation for small trading book business set out in Art. 94 of the CRR;
- the size of the on- and off-balance sheet derivative business to assess if they meet the conditions to use the simplified methods (i.e. simplified SA-CCR or OEM) for calculating the expected value of derivative transactions set out in Art. 273a of the CRR;
- the size of the on-and off-balance sheet business subject to market risk to assess if they meet the conditions to use the simplified standardized approach for market risk set out in Art. 325a of the CRR.

The previous version of the Regulation (as set out in the CRR2) stated that, for calculating the size of the on- and off-balance-sheet trading book business, "the absolute value of long positions shall be summed with the absolute value of short positions". However, no clarification was included around the notions of long and short positions or the aggregation mechanism, thus leaving room for different interpretations and uncertainty around the calculation.



The CRR3 introduced additional specifications on how to carry out the aggregation across and between long and short positions. ¹¹ In addition, it clarifies that a long position means that the market value of the position increases when the value of its main risk driver increases, and a short position means that the market value of the position decreases, when the value of its main risk driver increases. In addition, it mandates the EBA to provide further guidance on how to specify the main risk driver and hence determine if a transaction represents a long or short position.

The lack of a common method to identify the main risk driver of a position can result in an inconsistent determination of a long/short position across institutions, creating an unlevel playing field in the use of simplified methods for market risk and counterparty credit risk across EU banks.

B. Baseline scenario

The EBA has carried out a quantitative analysis to calculate the number of banks that are **currently** eligible for the derogation under Article 94(3) of CRR and meet the conditions under Art. 273a(3) and 325a(2) of CRR to use simplified methods for measuring exposure value and market risk.¹²

The analysis uses supervisory data as of 30 June 2023 for the total EU/EEA population of 4176 banks reporting either at individual and/or consolidated level. For each threshold calculation, a different sample of banks is used depending on the data quality criteria considered.

Article 94 – Derogation for small trading book business

Table 1 shows that 3140 banks (or 90.9% of total) out of a sample of 3453 banks which submitted data of sufficient quality are below the thresholds set out in Art. 94 (5% of total assets and EUR 50 million) and can access the derogations for small trading books.

Table 1 Number of banks by size of the on- and off-balance-sheet trading-book business in absolute terms (Art. 94(1)(b)) and in % of total assets (Art. 94(1)(a))

| Absolute threshold (in EUR million)/Relative threshold | [0%,5%) | [5%,10%) | [10%,15%) | [15%,20%) | [20%,Inf) |
|--|---------|----------|-----------|-----------|-----------|
| (0,50) | 3140 | 5 | 2 | 2 | 5 |
| [50,100) | 38 | 4 | 2 | 2 | 6 |
| [100,150) | 18 | 1 | 1 | 1 | 1 |
| [150,200) | 18 | 1 | 1 | 0 | 3 |
| [200,Inf) | 72 | 31 | 11 | 8 | 80 |

¹¹ These include: a) The absolute value of the aggregated long position shall be summed with the absolute value of the aggregated short position; b) The value of the aggregated long (short) position shall be equal to the sum of the values of the individual long (short) positions included in the calculation.

 $^{^{12}}$ The analysis is based on the CRR2 provisions on the thresholds calculation and do not consider the specifications included in these RTS.

¹³ For simplification, the analysis uses data as of the last day of June 2023. In reality, the assessment of the thresholds is carried out on a monthly basis using the data as of the last day of the month. An institution ceases to use the derogation under Art. 94 of the CRR or the simplified methods under Art. 273a and Art. 325a of the CRR within three months of either of the following cases: (a) the institution does not meet the threshold conditions for three consecutive months; (b) the institution does not meet the threshold conditions during more than 6 out of the last 12 months.



Sources: EBA Supervisory data, 30 June 2023.

Note: The sample covers 3453 banks reporting either at individual and/or consolidated level, which submitted data of sufficient quality in row 010 and columns 030 and 040 of template C90.00. The black box illustrates the number of banks that meet Art. 94 conditions (size of the on- and off-balance-sheet trading-book business below EUR 50 million and 5% of total assets).

Out of the 3140 banks that fall below the Art. 94 thresholds, the vast majority (3018 banks) have a very small trading book (below 1% of total assets and below EUR 10 million) and are likely to continue meeting the conditions for accessing the derogation in the future (Table 2). Moreover, the banks which lie close to the thresholds in both directions (dark orange zones) — and may be impacted by the provisions in the RTS — are very few (33) compared to the rest of the sample.

Table 2: Number of banks by size of the on- and off-balance-sheet trading-book business in absolute terms (Art. 94(1)(b)) and in % of total assets (Art. 94(1)(a)), where the size of the on- and off-balance-sheet trading-book business is below EUR 100 million and 10% of total assets

| Absolute threshold (in EUR million) /Relative threshold | [0%,1 %) | [1%, 2%) | [2%, 3%) | [3%, 4%) | [4%, 5%) | [5%, 6%) | [6% <i>,</i> 7%) | [7%, 8%) | [8%, 9%) | [9%, 10%) |
|---|-------------|-------------|-------------|-------------|-------------|-------------|---------------------|-------------|-------------|--------------|
| (0,10) | 3018 | 21 | 7 | 0 | 2 | 0 | 0 | 0 | 1 | 0 |
| [10,20) | 36 | 9 | 3 | 2 | 1 | 1 | 1 | 0 | 0 | 0 |
| [20,30) | 9 | 2 | 2 | 2 | 1 | 0 | 0 | 1 | 1 | 0 |
| [30,40) | 10 | 4 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| [40,50) | 8 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| [50,60) | 7 | 7 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| [60,70) | 6 | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| [70,80) | 4 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| [80,90) | 4 | 1 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 |
| [90,100) | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Sources: EBA Supervisory data, 30 June 2023.

Notes: The sample covers 3453 banks reporting either at individual and/or consolidated level, which submitted data of sufficient quality in row 010 and columns 030 and 040 of template C90.00. The table shows the results only for 3187 banks which have a size of the on- and off-balance-sheet trading-book business below EUR 100 million and 10% of total assets. The black box illustrates the number of banks that meet Art. 94 conditions (size of the on- and off-balance-sheet trading-book business below EUR 50 million and 5% total assets).

Article 273a – Conditions for using simplified methods for calculating the exposure value

Error! Reference source not found. shows that there are 1756 banks (80.6% of total 2178 banks with data of sufficient quality) below the thresholds (10% of total assets and EUR 300 million) set out in Art. 273a(1) and can access the derogations for using the simplified SA-CCR. Out of these, 1553 banks (71.3% of total banks) are below the thresholds (5% of total assets and EUR 100 million) set out in Art. 273a(2) and can access the derogations for using the OEM.

Table 3: Number of banks, divided by size of the on- and off-balance-sheet derivative business in absolute terms (Art. 273a(1)(b)) and in % of total assets (Art. 273a(1)(a))

| Absolute threshold (in EUR million) /Relative | [0%,5 | [5%,10 | [10%,15 | [15%,20 | [20%,In |
|---|-------|--------|---------|---------|---------|
| threshold | %) | %) | %) | %) | f) |
| (0,100) | 1553 | 15 | 2 | 0 | 6 |
| [100,300) | 176 | 12 | 3 | 0 | 1 |



| [300,500) | 51 | 14 | 5 | 0 | 1 |
|------------|----|----|----|----|----|
| [500,1000) | 51 | 14 | 3 | 0 | 3 |
| [1000,Inf) | 63 | 60 | 40 | 29 | 76 |

Sources: EBA Supervisory data, 30 June 2023.

Note: The sample covers 2178 banks reporting either at individual and/or consolidated level, which submitted data of sufficient quality in rows 010 and 050 and column 090 of template C34.01. The black box illustrates the number of banks that meet Art. 273a conditions (size of the on- and off-balance-sheet derivative business below EUR 300 million and 10% of total assets).

As Table 4 shows, the vast majority of banks (1363) have a very small derivative business (below 2.5% of total assets and below EUR 50 million), well below the Art. 273a(2) thresholds. This suggests that it is likely that they will meet the conditions for using the OEM or simplified SA-CCR in the future. Regarding banks which lie close to the thresholds of Art. 273a(1) in both directions (dark orange zones) and may be impacted by the provisions of these RTS, these are relatively few (82) compared to the rest of the sample.

Table 4: Detail of table 5 (green and yellow area). Number of banks, divided by size of the on- and off-balance-sheet derivative business in absolute terms (Art. 273a(1)(b)) and in % of total assets (Art. 273a(1)(a)), where the size of the on- and off-balance-sheet derivative-book business is below EUR 500 million and 20% of total assets

| Absolute threshold (in EUR million) /Relative threshold | [0%,2 .5%) | [2.5% ,5%) | [5%,7 .5%) | [7.5%, 10%) | [10%,1 2.5%) | [12.5% ,15%) | [15%,1 7.5%) | [17.5% ,20%) |
|---|---------------|---------------|---------------|----------------|-----------------|-----------------|-----------------|-----------------|
| (0,50) | 1363 | 35 | 5 | 2 | 1 | 0 | 0 | 0 |
| [50,100) | 139 | 16 | 7 | 1 | 1 | 0 | 0 | 0 |
| [100,150) | 35 | 27 | 1 | 0 | 0 | 0 | 0 | 0 |
| [150,200) | 19 | 23 | 3 | 2 | 2 | 0 | 0 | 0 |
| [200,250) | 13 | 15 | 4 | 1 | 0 | 0 | 0 | 0 |
| [250,300) | 34 | 10 | 1 | 0 | 1 | 0 | 0 | 0 |
| [300,350) | 8 | 9 | 1 | 1 | 0 | 0 | 0 | 0 |
| [350,400) | 9 | 4 | 3 | 1 | 3 | 2 | 0 | 0 |
| [400,450) | 2 | 5 | 0 | 2 | 0 | 0 | 0 | 0 |
| [450,500) | 5 | 9 | 5 | 1 | 0 | 0 | 0 | 0 |

Sources: EBA Supervisory data, 30 June 2023.

Note: The sample covers 2178 banks reporting either at individual and/or consolidated level, which submitted data of sufficient quality in rows 010 and 050 and column 090 of template C34.01. The table shows the results only for 1831 banks which have a size of the on- and off-balance-sheet derivative business below EUR 500 million and 20% of total assets. The black box illustrates the number of banks that meet Art. 273a conditions (size of the on- and off-balance-sheet derivative business below EUR 300 million and 10% of total assets).

Article 325a – Conditions for using the simplified standardized approach for market risk

Table 5 shows that 3463 banks out of a sample of 3772 banks which submitted data of sufficient quality (91.8% of total) are below the thresholds set out in Art. 325a (10% of total assets and EUR 500 million) and can be exempted from using the FRTB SA.

Table 5: Number of banks, divided by size of the on- and off-balance-sheet business subject to market risk in absolute terms (Art. 325a(1)(b)) and in % of total assets (Art. 325a(1)(a))

| Absolute threshold (in EUR million) /Relative | [0%,5 | [5%,10 | [10%,15 | [15%,20 | [20%,In |
|---|-------|--------|---------|---------|---------|
| threshold | %) | %) | %) | %) | f) |
| (0,250) | 3392 | 30 | 14 | 9 | 23 |



| [250,500) | 35 | 6 | 2 | 0 | 11 |
|------------|----|----|----|---|----|
| [500,750) | 18 | 6 | 1 | 3 | 1 |
| [750,1000) | 15 | 5 | 0 | 1 | 1 |
| [1000,Inf) | 39 | 34 | 22 | 5 | 99 |

Sources: EBA Supervisory data, 30 June 2023.

Note: The sample covers 3772 banks reporting either at individual and/or consolidated level, which submitted data of sufficient quality in row 010 and columns 010 and 070 of template C90.00. The black box illustrates the number of banks that meet Art. 325a conditions (size of the on- and off-balance-sheet business subject to market risk below EUR 500 million and 10% of total assets).

As Table 6 shows, the vast majority of the banks (3228 out of 3463 banks) which meet the Art. 325a thresholds have a very small business subject to market risk (below 2% of total assets and below EUR 100 million) and are likely to meet the conditions for using the simplified methods for market risk in the future. Moreover, there are very few banks (47) that are positioned close to the thresholds in any dimension (dark orange zones) and which may be impacted by the provisions in the RTS.

Table 6: Detail of table 1 (green and yellow area). Number of banks, divided by size of the on- and off-balance-sheet business subject to market risk in absolute terms (Art. 325a(1)(b)) and in % of total assets (Art. 325a(1)(a)), where the size of the on- and off-balance-sheet business subject to market risk is below EUR 1000 million and 20% of total assets

| Absolute threshold (in EUR million) /Relative threshold | [0%, 2%) | [2%, 4%) | [4%, 6%) | [6%, 8%) | [8%, 10%) | [10% ,12%) | [12% ,14%) | [14% ,16%) | [16% ,18%) | [18% ,20%) |
|---|-------------|-------------|-------------|-------------|--------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| (0,100) | 3228 | 70 | 18 | 7 | 4 | 6 | 2 | 1 | 5 | 1 |
| [100,200) | 32 | 24 | 7 | 5 | 1 | 5 | 1 | 0 | 2 | 0 |
| [200,300) | 35 | 7 | 1 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |
| [300,400) | 6 | 2 | 2 | 2 | 0 | 0 | 2 | 0 | 0 | 0 |
| [40,500) | 6 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| [500,600) | 4 | 2 | 1 | 3 | 1 | 0 | 0 | 0 | 3 | 0 |
| [600,700) | 5 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 |
| [700,800) | 6 | 3 | 1 | 2 | 0 | 1 | 0 | 0 | 0 | 0 |
| [800,900) | 1 | 3 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| [900,1000) | 3 | 1 | 2 | 0 | 2 | 0 | 0 | 0 | 0 | 0 |

Sources: EBA Supervisory data, 30 June 2023.

Note: The sample covers 3772 banks reporting either at individual and/or consolidated level, which submitted data of sufficient quality in row 010 and columns 010 and 070 of template C90.00. The table shows the results only for 3537 banks which have a size of the on- and off-balance-sheet business subject to market risk below EUR 1000 million and 20% of total assets. The black box illustrates the number of banks that meet Art. 94 conditions (size of the on- and off-balance-sheet business subject to market risk below EUR 500 million and 10% of total assets).

C. Policy objectives

The specific objective of these draft RTS is to establish a common methodology for identifying the main risk driver of a position and for determining whether a transaction represents a long or a short position as referred to in Articles 94(3), 273a(3) and 325a(2) of CRR. In this way, these draft RTS are meant to ensure a consistent application of the conditions to use the derogation for the small trading book business (CRR Art. 94), the simplified method for calculating the expected value of derivative transactions (Art. 273a) and the simplified standardized approach for market risk (Art. 325a).



Generally, these draft RTS aim to create a level playing field, promote convergence among individual institutions' practices and enhance comparability of own funds requirements across the EU. Overall, these draft RTS are expected to promote the effective and efficient functioning of the EU banking sector.

D. Options considered, Cost-Benefit Analysis, Preferred options

General methodology

CRR3 specifies that the EBA should take into consideration the method developed for the RTS on SA-CCR when developing the method for determining the direction of a position. Accordingly, the draft RTS aligns the method for determining whether a transaction represents a long or a short position with the method for determining whether a transaction is a long or a short position in the primary risk driver or in the most material risk driver in the given risk category for transactions set out in the RTS on SA-CCR.

Regarding the method to identify the risk driver, the CRR3 does not make any similar specification. The EBA considered two policy options to identify the main risk driver of a position.

Option 1a: Use the approach set out in the RTS on SA-CCR to identify the main risk driver

Option 1b: Use an alternative approach

Option 1a proposes to use the method set out in RTS on SA-CCR to identify the main risk driver of a position, similarly with what is done for determining the direction of a position. For non-derivative positions, the main risk driver is determined by firstly identifying the risk factors of the position, secondly computing the FRTB SA delta sensitivities for each of the identified risk factors, thirdly risk-weighting the sensitivities using the FRTB SA risk weights and finally comparing them across the identified risk factors to identify the main risk driver. For derivative positions, banks can use either the FRTB SA risk-weighted sensitivities (as for non-derivative positions) or the SA-CCR risk category add-ons to determine the main risk driver. Aligning the methodology with the one used in the RTS on SA-CCR reduces the operational burden for institutions and ensures consistency across different elements of the regulatory framework.

Under Option 1b, the EBA explored the possibility to use an alternative approach to identify the main risk driver. However, taking into account that the existing SA-CCR methodology has worked well in practice and banks are already familiar with it, the EBA saw little benefit of using an alternative methodology for the purpose of this RTS.

Option 1a is preferred.

Proportionality

Taking into account that the threshold calculations is particularly important for small and non-complex institutions, the EBA has considered two policy options for the methodology to identify the main risk driver and determine the direction of a position.



Option 2a: Use a general methodology only

Option 2b: Use a simplified method in addition to the general methodology

Option 2a considers only a general methodology to identify the main risk driver and determine the direction of a position. Under this option, the same methodology based on FRTB SA sensitivities should be used by all institutions irrespective of their size and complexity. This has the benefit of ensuring an accurate calculation of the size of on-and-off balance sheet business and a consistent application of the derogation in CRR Art. 94 and eligibility conditions of using the simplified methods for market and counterparty risks in Art. 325a and Art. 273a of the CRR across banks. However, it does not take into account the different degree of complexity institutions may have and potential difficulties faced by small and non-complex banks in using such method.

Considering that the calculation of these thresholds is particularly important for these type of banks, Option 2b introduces a simplified method in addition to the general methodology. Under the simplified method the main risk driver is easily identified on the basis of the type of instrument (for bonds, additional characteristics such as credit quality, sector and maturity are considered). This option acknowledges that the computation of FRTB SA sensititivies may be too burdensome or difficult or even impossible for small and non-complex banks. It has the benefit of reducing the operational burden for banks with a relatively simple trading and/or derivative business and introduces proportionality in the draft RTS.

Option 2b is preferred.

Scope of the simplified method

The EBA has considered two policy options for the scope of the simplified method.

Option 3a: Cover simple instruments only

Option 3b: Cover complex instruments in addition to simple instruments

Option 3a restricts the scope of the simplified method to simple instruments only. These instruments are fixed-rate bonds, stocks, forward positions, IR swaps, CDS and plain vanilla options, which are normally traded by small banks. This is consistent with the original philosophy behind the introduction of the simplified method, which was to facilitate the thresholds calculation for small and non-complex banks that do not have the capacity of performing the general methodology.

Option 3b considers a broader scope of the simplified method, which may include more complex instruments. However, the EBA is of the view that banks which find the general approach too burdensome or impossible to perform, are not expected to trade in complex instruments which require more advanced methods. Hence, the simplified method should be compatible for banks holding simple instruments only.

Option 3a is preferred.



5.2 Overview of questions for consultation

- 1. Do you agree with the general method for identifying the main risk driver of a non-derivative position and for determining its direction?
- 2. Do you agree with the analysis proposed in the background section and with the inclusion of this simplified method for fixed-rate bonds, floating-rate notes and stocks?
- 3. Do you think that other non-derivative instruments should be included in the simplified method? If yes, please provide rationale and proposed treatment.
- 4. Do you agree with the general method for identifying the main risk driver of a derivative position and for determining its direction?
- 5. Do you agree with the analysis proposed in the background section and with the inclusion of this simplified method for futures, options and swaps?
- 6. Do you think that other derivative instruments should be included in the simplified method? If yes, please provide rationale and proposed treatment.