# Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (Text with EEA relevance)

## [X1PART THREE

## CAPITAL REQUIREMENTS

## TITLE IV

## OWN FUNDS REQUIREMENTS FOR MARKET RISK

## *[X1[F1CHAPTER 1b*

### *Alternative internal model approach*

#### *Section 1*

#### *Permission and own funds requirements*

##### *Article 325az*

**Alternative internal model approach and permission to use alternative internal models**

1 The alternative internal model approach as set out in this Chapter shall be used only for the purposes of the reporting requirement laid down in Article 430b(3).

2 After having verified institutions' compliance with the requirements set out in Articles 325bh, 325bi and 325bj, competent authorities shall grant permission to those institutions to calculate their own funds requirements for the portfolio of all positions assigned to trading desks by using their alternative internal models in accordance with Article 325ba, provided that all the following requirements are met:

a the trading desks were established in accordance with Article 104b;

b the institution has provided to the competent authority a rationale for the inclusion of the trading desks in the scope of the alternative internal model approach;

c the trading desks have met the back-testing requirements referred to in Article 325bf(3) for the preceding year;

d the institution has reported to its competent authorities the results of the profit and loss attribution ( ‘ P&L attribution ’ ) requirement for the trading desks set out in Article 325bg;

e for trading desks that have been assigned at least one of those trading book positions referred to in Article 325bl, the trading desks fulfil the requirements set out in Article 325bm for the internal default risk model;

f no securitisation or re-securitisation positions have been assigned to the trading desks.

For the purposes of point (b) of the first subparagraph of this paragraph, not including a trading desk in the scope of the alternative internal model approach shall not be motivated by the fact that the own funds requirement calculated under the alternative standardised approach set out in point (a) of Article 325(3) would be lower than the own funds requirement calculated under the alternative internal model approach.

3 Institutions that have received the permission to use the alternative internal model approach shall report to the competent authorities in accordance with Article 430b(3).

4 An institution that has been granted the permission referred to in paragraph 2 shall immediately notify its competent authorities that one of its trading desks no longer meets at least one of the requirements set out in that paragraph. That institution shall no longer be permitted to apply this Chapter to any of the positions assigned to that trading desk and shall calculate the own funds requirements for market risk in accordance with the approach set out in Chapter 1a for all the positions assigned to that trading desk from the earliest reporting date and until the institution demonstrates to the competent authorities that the trading desk again fulfils all the requirements set out in paragraph 2.

5 By way of derogation from paragraph 4, in extraordinary circumstances, competent authorities may permit an institution to continue using its alternative internal models for the purpose of calculating the own funds requirements for the market risk of a trading desk that no longer meets the conditions referred to in point (c) of paragraph 2 of this Article and in Article 325bg(1). **F2**...

6 For positions assigned to the trading desks for which an institution has not been granted permission as referred to in paragraph 2, the own funds requirements for market risk shall be calculated by that institution in accordance with Chapter 1a of this Title. For the purposes of that calculation, all those positions shall be considered on a stand-alone basis as a separate portfolio.

7 Material changes to the use of alternative internal models that an institution has received permission to use, the extension of the use of alternative internal models that the institution has received permission to use, and material changes to the institution's choice of the subset of the modellable risk factors referred to in Article 325bc(2), shall require separate permission from its competent authorities.

Institutions shall notify the competent authorities of all other extensions and changes to the use of the alternative internal models for which the institution has received permission.

8 **[**F3The FCA and PRA may each make**]** technical standards to specify:

a the conditions for assessing the materiality of extensions and changes to the use of alternative internal models and changes to the subset of the modellable risk factors referred to in Article 325bc;

b the assessment methodology under which competent authorities verify an institution's compliance with the requirements set out in Articles 325bh, 325bi, 325bn, 325bo and 325bp.

**F4**...

9 **[**F5The FCA and PRA may each make**]** technical standards to specify the extraordinary circumstances under which **[**F6they**]** may permit an institution:

a to continue using its alternative internal models for the purpose of calculating the own funds requirements for the market risk of a trading desk that no longer meets the conditions referred to in point (c) of paragraph 2 of this Article and in Article 325bg(1);

b to limit the add-on to the one resulting from overshootings under back-testing hypothetical changes.

**F7** …

**Textual Amendments**

**F2** Words in Art. 325az(5) omitted (31.12.2020) by virtue of The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **55(2)**; 2020 c. 1, Sch. 5 para. 1(1)

**F3** Words in Art. 325az(8) substituted (31.12.2020) by The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **55(3)(a)**; 2020 c. 1, Sch. 5 para. 1(1)

**F4** Words in Art. 325az(8) omitted (31.12.2020) by virtue of The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **55(3)(b)**; 2020 c. 1, Sch. 5 para. 1(1)

**F5** Words in Art. 325az(9) substituted (31.12.2020) by The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **55(4)(a)**; 2020 c. 1, Sch. 5 para. 1(1)

**F6** Word in Art. 325az(9) substituted (31.12.2020) by The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **55(4)(b)**; 2020 c. 1, Sch. 5 para. 1(1)

**F7** Words in Art. 325az(9) omitted (31.12.2020) by virtue of The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **55(4)(c)**; 2020 c. 1, Sch. 5 para. 1(1)

*Article 325ba*

**Own funds requirements when using alternative internal models**

1 An institution using an alternative internal model shall calculate the own funds requirements for the portfolio of all positions assigned to the trading desks for which the institution has been granted permission as referred to in Article 325az(2) as the higher of the following:

a the sum of the following values:

(i) the institution's previous day's expected shortfall risk measure, calculated in accordance with Article 325bb ($ES_{t-1}$), and

(ii) the institution's previous day's stress scenario risk measure, calculated in accordance with Section 5 ($SS_{t-1}$); or

b the sum of the following values:

(i) the average of the institution's daily expected shortfall risk measure, calculated in accordance with Article 325bb for each of the preceding sixty business days ($ES^{avg}$), multiplied by the multiplication factor ($m_c$); and

(ii) the average of the institution's daily stress scenario risk measure, calculated in accordance with Section 5 for each of the preceding sixty business days ($SS^{avg}$).

2 Institutions holding positions in traded debt and equity instruments that are included in the scope of the internal default risk model and assigned to the trading desks referred to in paragraph 1 shall fulfil an additional own funds requirement, expressed as the higher of the following values:

a the most recent own funds requirement for default risk, calculated in accordance with Section 3;

b the average of the amount referred to in point (a) over the preceding 12 weeks.

*Section 2*

***General requirements***

*Article 325bb*

**Expected shortfall risk measure**

1 Institutions shall calculate the expected shortfall risk measure referred to in point (a) of Article 325ba(1) for any given date 't' and for any given portfolio of trading book positions as follows:

$$ES_t = \rho \times (UES_t) + (1-\rho) \times \sum_i UES_i^t$$

where:

$ES_t$ = the expected shortfall risk measure;

i = the index that denotes the five broad categories of risk factors listed in the first column of Table 2 of Article 325bd;

$UES_t$ = the unconstrained expected shortfall measure calculated as follows:

$$UES_t = PES_{RS}^t \times \max\left(\frac{PES_{FC}^t}{PES_{RC}^t}, 1\right)$$

$UES_i^t$ = the unconstrained expected shortfall measure for broad risk factor category i and calculated as follows:

$$UES_i^t = PES_{RS,i}^t \times \max\left(\frac{PES_{FC,i}^t}{PES_{RC,i}^t}, 1\right)$$

ρ = the supervisory correlation factor across broad categories of risk; ρ = 50 %;

$PES_{RS}^t$ = the partial expected shortfall measure that shall be calculated for all the positions in the portfolio in accordance with Article 325bc(2);

$PES_{RC}^t$ = the partial expected shortfall measure that shall be calculated for all the positions in the portfolio in accordance with Article 325bc(3);

$PES_{FC}^t$ = the partial expected shortfall measure that shall be calculated for all the positions in the portfolio in accordance with Article 325bc(4);

$PES_{RS,i}^t$ = the partial expected shortfall measure for broad risk factor category i that shall be calculated for all the positions in the portfolio in accordance with Article 325bc(2);

$PES_{RC,i}^t$ = the partial expected shortfall measure for broad risk factor category i that shall be calculated for all the positions in the portfolio in accordance with Article 325bc(3); and

$PES_{FC,i}^t$ = the partial expected shortfall measure for broad risk factor category i that shall be calculated for all the positions in the portfolio in accordance with of Article 325bc(4).

2 Institutions shall only apply scenarios of future shocks to the specific set of modellable risk factors applicable to each partial expected shortfall measure, as set out in Article 325bc,

when determining each partial expected shortfall measure for the calculation of the expected shortfall risk measure in accordance with paragraph 1.

3 Where at least one transaction of the portfolio has at least one modellable risk factor which has been mapped to the broad risk factor category i in accordance with Article 325bd, institutions shall calculate the unconstrained expected shortfall measure for the broad risk factor category i and include it in the formula for the expected shortfall risk measure referred to in paragraph 1 of this Article.

4 By way of derogation from paragraph 1, an institution may reduce the frequency of the calculation of the unconstrained expected shortfall measures

$$UES_i^t$$

and of the partial expected shortfall measures

$$PES_{RS,i}^t$$

,

$$PES_{RC,i}^t$$

and

$$PES_{FC,i}^t$$

for all broad risk factor categories i from daily to weekly, provided that both of the following conditions are met:

a the institution is able to demonstrate to its competent authority that calculating the unconstrained expected shortfall measure

$$UES_i^t$$

does not underestimate the market risk of the relevant trading book positions;

b the institution is able to increase the frequency of calculation of

$$UES_i^t$$

,

$$PES_{RS,i}^t$$

,

$$PES_{RC,i}^t$$

and

$$PES_{FC,i}^t$$

from weekly to daily where required by its competent authority.

*Article 325bc*

**Partial expected shortfall calculations**

1 Institutions shall calculate all the partial expected shortfall measures referred to in Article 325bb(1) as follows:

a daily calculations of the partial expected shortfall measures;

b at 97,5th percentile, one tailed confidence interval;

c for a given portfolio of trading book positions, institution shall calculate the partial expected shortfall measure at time ‘ t ’ accordance with the following formula:

$$PESt=PEStT2+\sum j\geq 2PEStT,\ j\times LHj-LHj-110$$

where:

$PES_t$ = the partial expected shortfall measure at time t;

| | | |
|---|---|---|
| j | = | the index that denotes the five liquidity horizons listed in the first column of Table 1; |
| $LH_j$ | = | the length of liquidity horizons j as expressed in days in Table 1; |
| T | = | the base time horizon, where T = 10 days; |
| $PES_t(T)$ | = | the partial expected shortfall measure that is determined by applying scenarios of future shocks with a 10-day time horizon only to the specific set of modellable risk factors of the positions in the portfolio set out in paragraphs 2, 3 and 4 for each partial expected shortfall measure referred to in Article 325bb(1); and |
| $PES_t(T, j)$ | = | the partial expected shortfall measure that is determined by applying scenarios of future shocks with a 10-day time horizon only to the specific set of modellable risk factors of the positions in the portfolio set out in paragraphs 2, 3 and 4 for each partial expected shortfall measure referred to in Article 325bb(1) and of which the effective liquidity horizon, as determined in accordance with Article 325bd(2), is equal or longer than $LH_j$ . |

*TABLE 1*

| Liquidity horizon j | Length of liquidity horizon j (in days) |
|---|---|
| 1 | 10 |
| 2 | 20 |
| 3 | 40 |
| 4 | 60 |
| 5 | 120 |

2 For the purpose of calculating the partial expected shortfall measures $PESRS_t$ and $PESRS_{it}$ referred to in Article 325bb(1), in addition to the requirements set out in paragraph 1 of this Article, institutions shall meet the following requirements:

a in calculating $PESRS_t$, institutions shall only apply scenarios of future shocks to a subset of the modellable risk factors of the positions in the portfolio which has been chosen by the institution, to the satisfaction of the competent authorities, so that the following condition is met with the sum taken over from the preceding 60 business days:

$$160 \times \sum_{k=0}^{59} PESRC_{t-k} PESFC_{t-k} \geq 75\%$$

An institution that no longer meets the requirement referred to in the first paragraph of this point shall immediately notify the competent authorities thereof and shall update the subset of the modellable risk factors within two weeks in order to meet that

requirement; where, after two weeks, that institution has failed to meet that requirement, the institution shall revert to the approach set out in Chapter 1a to calculate the own funds requirements for market risk for some trading desks, until that institution is able to demonstrate to the competent authority that it is meeting the requirement set out in the first subparagraph of this point;

b in calculating

PESRS it

, institutions shall only apply scenarios of future shocks to the subset of the modellable risk factors of the positions in the portfolio chosen by the institution for the purposes of point (a) of this paragraph and which have been mapped to the broad risk factor category ‘ i ’ in accordance with Article 325bd;

c the data inputs used to determine the scenarios of future shocks applied to the modellable risk factors referred to in points (a) and (b) shall be calibrated to historical data from a continuous 12-month period of financial stress that shall be identified by the institution in order to maximise the value of

PESRSt

; for the purpose of identifying that stress period, institutions shall use an observation period starting at least from 1 January 2007 , to the satisfaction of the competent authorities; and

d the data inputs of

PESRS it

shall be calibrated to the 12-month stress period that has been identified by the institution for the purposes of point (c).

3 For the purpose of calculating the partial expected shortfall measures

PESRCt

and

PESRC it

referred to in Article 325bb(1), institutions shall, in addition to the requirements set out in paragraph 1 of this Article, meet the following requirements:

a in calculating

PESRCt

, institutions shall only apply scenarios of future shocks to the subset of the modellable risk factors of the positions in the portfolio referred to in point (a) of paragraph 2;

b in calculating

PESRC it

, institutions shall only apply scenarios of future shocks to the subset of the modellable risk factors of the positions in the portfolio referred to in point (b) of paragraph 2;

c the data inputs used to determine the scenarios of future shocks applied to the modellable risk factors referred to in points (a) and (b) of this paragraph shall be calibrated to historical data referred to in point (c) of paragraph 4; those data shall be updated on at least a monthly basis.

4 For the purpose of calculating the partial expected shortfall measures

PESFCt

and

referred to in Article 325bb(1), institutions shall, in addition to the requirements set out in paragraph 1 of this Article, meet the following requirements:

PESFC.it

a in calculating

PESFC.t

, institutions shall apply scenarios of future shocks to all the modellable risk factors of the positions in the portfolio;

b in calculating

PESFC.it

, institutions shall apply scenarios of future shocks to all the modellable risk factors of the positions in the portfolio which have been mapped to the broad risk factor category i in accordance with Article 325bd;

c the data inputs used to determine the scenarios of future shocks applied to the modellable risk factors referred to in points (a) and (b) shall be calibrated to historical data from the preceding 12-month period; where there is a significant upsurge in the price volatility of a material number of modellable risks factors of an institution's portfolio which are not in the subset of the risk factors referred to in point (a) of paragraph 2, competent authorities may require an institution to use historical data for a period shorter than the preceding 12-months, but such a shorter period shall not be shorter than the preceding six-months. [F8]...

5 In calculating a given partial expected shortfall measure as referred to in Article 325bb(1), institutions shall maintain the values of the modellable risks factors for which they have not been required to apply scenarios of future shocks for that partial expected shortfall measure under paragraphs 2, 3 and 4 of this Article.

**Textual Amendments**

**F8** Words in Art. 325bc(4)(c) omitted (31.12.2020) by virtue of The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **56**; 2020 c. 1, Sch. 5 para. 1(1)

*Article 325bd*

**Liquidity horizons**

1 Institutions shall map each risk factor of positions assigned to the trading desks for which they have been granted permission as referred to in Article 325az(2), or for which they are in the process of being granted such permission, to one of the broad categories of risk factors listed in Table 2 and to one of the broad sub-categories of risk factors listed in that Table.

2 The liquidity horizon of a risk factor of the positions referred to in paragraph 1 shall be the liquidity horizon of the corresponding broad sub-category of risk factors to which it has been mapped.

3 By way of derogation from paragraph 1 of this Article, for a given trading desk, an institution may decide to replace the liquidity horizon of a broad sub-category of risk factors listed in Table 2 of this Article with one of the longer liquidity horizons listed in Table 1 of

Article 325bc. Where an institution takes such a decision, the longer liquidity horizon shall apply to all the modellable risk factors of the positions assigned to that trading desk that have been mapped to that broad sub-category of risk factors for the purpose of calculating the partial expected shortfall measures in accordance with point (c) of Article 325bc(1).

An institution shall notify the competent authorities of the trading desks and the broad sub-categories of risk factors to which it decides to apply the treatment referred to in the first subparagraph.

4 For the purpose of calculating the partial expected shortfall measures in accordance with point (c) of Article 325bc(1), the effective liquidity horizon of a given modellable risk factor of a given trading book position shall be calculated as follows:

| | | |
|---|---|---|
| EffectiveLH = | | $SubCatLH \text{ if } Mat > LH_5$ |
| | | $\min(SubCatLH, \min_j \{LH_j / LH_j \geq Mat\}) \text{ if } LH_1 \leq Mat \leq LH_5$ |
| | | $LH_1 \text{ if } Mat < LH_1$ |

where:

| | | |
|---|---|---|
| EffectiveLH | = | the effective liquidity horizon; |
| Mat | = | the maturity of the trading book position; |
| SubCatLH | = | the length of liquidity horizon of the modellable risk factor determined in accordance with paragraph 1; and |
| $\min_j \{LH_j / LH_j \geq Mat\}$ | = | the length of one of the liquidity horizons listed in Table 1 of Article 325bc which is the nearest liquidity horizon above the maturity of the trading book position. |

F9 5 . . . . . .

6 An institution shall verify the appropriateness of the mapping referred to in paragraph 1 on at least a monthly basis.

7 **[**F10The FCA and PRA may each make**]** technical standards to specify:

a how institutions are to map the risk factors of the positions referred to in paragraph 1 to broad categories of risk factors and broad sub-categories of risk factors for the purposes of paragraph 1;

b which currencies constitute the most liquid currencies sub-category of the broad category of interest rate risk factor of Table 2;

c which currency pairs constitute the most liquid currency pairs sub-category of the broad category of foreign exchange risk factor of Table 2;

d the definitions of small market capitalisation and large market capitalisation for the purposes of the equity price and volatility sub-category of the broad category of equity risk factor of Table 2.

F11 …

*TABLE 2*

| **Broad categories of risk factors** | **Broad sub-categories of risk factors** | **Liquidity horizons** | **Length of the liquidity horizon (in days)** |
|---|---|---|---|
| Interest rate | Most liquid currencies and domestic currency | 1 | 10 |
| | Other currencies (excluding most liquid currencies) | 2 | 20 |
| | Volatility | 4 | 60 |
| | Other types | 4 | 60 |
| Credit spread | **[**F12The central government of the United Kingdom, and the Bank**]** | 2 | 20 |
| | **[**F13Covered bonds issued by credit institutions in the United Kingdom (Investment Grade)**]** | 2 | 20 |
| | Sovereign (Investment grade) | 2 | 20 |
| | Sovereign (High yield) | 3 | 40 |
| | Corporate (Investment grade) | 3 | 40 |
| | Corporate (High yield) | 4 | 60 |
| | Volatility | 5 | 120 |
| | Other types | 5 | 120 |
| Equity | Equity price (Large market capitalisation) | 1 | 10 |
| | Equity price (Small market capitalisation) | 2 | 20 |
| | Volatility (Large market capitalisation) | 2 | 20 |
| | Volatility (Small market capitalisation) | 4 | 60 |
| | Other types | 4 | 60 |
| Foreign exchange | Most liquid currency pairs | 1 | 10 |

| | | | |
|---|---|---|---|
| | Other currency pairs (excluding most liquid currency pairs) | 2 | 20 |
| | Volatility | 3 | 40 |
| | Other types | 3 | 40 |
| Commodity | Energy price and carbon emissions price | 2 | 20 |
| | Precious metal price and non-ferrous metal price | 2 | 20 |
| | Other commodity prices (excluding energy price, carbon emissions price, precious metal price and non-ferrous metal price) | 4 | 60 |
| | Energy volatility and carbon emissions volatility | 4 | 60 |
| | Precious metal volatility and non-ferrous metal volatility | 4 | 60 |
| | Other commodity volatilities (excluding energy volatility, carbon emissions volatility, precious metal volatility and non-ferrous metal volatility) | 5 | 120 |
| | Other types | 5 | 120 |

**Textual Amendments**

**F9** Art. 325bd(5) omitted (31.12.2020) by virtue of The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **57(2)**; 2020 c. 1, Sch. 5 para. 1(1)

**F10** Words in Art. 325bd(7) substituted (31.12.2020) by The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **57(3)(a)**; 2020 c. 1, Sch. 5 para. 1(1)

**F11** Words in Art. 325bd(7) omitted (31.12.2020) by virtue of The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **57(3)(b)**; 2020 c. 1, Sch. 5 para. 1(1)

**F12** Words in Art. 325bd(7) substituted (31.12.2020) by The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **57(4)(a)**; 2020 c. 1, Sch. 5 para. 1(1)

**F13** Words in Art. 325bd(7) substituted (31.12.2020) by The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **57(4)(b)**; 2020 c. 1, Sch. 5 para. 1(1)

*Article 325be*

**Assessment of the modellability of risk factors**

1 Institutions shall assess the modellability of all the risk factors of the positions assigned to the trading desks for which they have been granted permission as referred to in Article 325az(2) or are in the process of being granted such permission.

2 As part of the assessment referred to in paragraph 1 of this Article, institutions shall calculate the own funds requirements for market risk in accordance with Article 325bk for those risk factors that are not modellable.

3 **[**F14The FCA and PRA may each make**]** technical standards to specify the criteria to assess the modellability of risk factors in accordance with paragraph 1 and to specify the frequency of that assessment.

F15 …

**Textual Amendments**

**F14** Words in Art. 325be(3) substituted (31.12.2020) by The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **58(2)(a)**; 2020 c. 1, Sch. 5 para. 1(1)

**F15** Words in Art. 325be(3) omitted (31.12.2020) by virtue of The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **58(2)(b)**; 2020 c. 1, Sch. 5 para. 1(1)

*Article 325bf*

**Regulatory back-testing requirements and multiplication factors**

1 For the purposes of this Article, an ‘ overshooting ’ means a one-day change in the value of a portfolio composed of all the positions assigned to the trading desk that exceeds the related value-at-risk number calculated on the basis of the institution's alternative internal model in accordance with the following requirements:

a the calculation of the value at risk shall be subject to a one-day holding period;

b scenarios of future shocks shall apply to the risk factors of the trading desk's positions referred to in Article 325bg(3) and which are considered modellable in accordance with Article 325be;

c data inputs used to determine the scenarios of future shocks applied to the modellable risk factors shall be calibrated to historical data referred to in point (c) of Article 325bc(4);

d unless stated otherwise in this Article, the institution's alternative internal model shall be based on the same modelling assumptions as those used for the calculation of the expected shortfall risk measure referred to in point (a) of Article 325ba(1).

2 Institutions shall count daily overshootings on the basis of back-testing of the hypothetical and actual changes in the value of the portfolio composed of all the positions assigned to the trading desk.

3 An institution's trading desk shall be deemed to meet the back-testing requirements where the number of overshootings for that trading desk that occurred over the most recent 250 business days does not exceed any of the following:

a 12 overshootings for the value-at-risk number, calculated at a 99th percentile one tailed-confidence interval on the basis of back-testing of the hypothetical changes in the value of the portfolio;

b 12 overshootings for the value-at-risk number, calculated at a 99th percentile one tailed-confidence interval on the basis of back-testing of the actual changes in the value of the portfolio;

c 30 overshootings for the value-at-risk number, calculated at a 97,5th percentile one tailed-confidence interval on the basis of back-testing of the hypothetical changes in the value of the portfolio;

d 30 overshootings for the value-at-risk number, calculated at a 97,5th percentile one tailed-confidence interval on the basis of back-testing of the actual changes in the value of the portfolio.

4 Institutions shall count daily overshootings in accordance with the following:

a the back-testing of hypothetical changes in the value of the portfolio shall be based on a comparison between the end-of-day value of the portfolio and, assuming unchanged positions, the value of the portfolio at the end of the subsequent day;

b the back-testing of actual changes in the value of the portfolio shall be based on a comparison between the end-of-day value of the portfolio and its actual value at the end of the subsequent day, excluding fees and commissions;

c an overshooting shall be counted for each business day for which the institution is not able to assess the value of the portfolio or is not able to calculate the value-at-risk number referred to in paragraph 3.

5 An institution shall calculate, in accordance with paragraphs 6 and 7 of this Article, the multiplication factor ($m_c$) referred to in Article 325ba for the portfolio of all the positions assigned to the trading desks for which it has been granted permission to use alternative internal models as referred to in Article 325az(2).

6 The multiplication factor ($m_c$) shall be the sum of the value of 1,5 and an add-on between 0 and 0,5 in accordance with Table 3. For the portfolio referred to in paragraph 5, that add-on shall be calculated on the basis of the number of overshootings that occurred over the most recent 250 business days as evidenced by the institution's back-testing of the value-at-risk number calculated in accordance with point (a) of this subparagraph. The calculation of the add-on shall be subject to the following requirements:

a an overshooting shall be a one-day change in the portfolio's value that exceeds the related value-at-risk number calculated by the institution's internal model in accordance with the following:

(i) a one-day holding period;

(ii) a 99th percentile, one tailed confidence interval;

(iii) scenarios of future shocks shall apply to the risk factors of the trading desks' positions referred to in Article 325bg(3) and which are considered modellable in accordance with Article 325be;

(iv) the data inputs used to determine the scenarios of future shocks applied to the modellable risk factors shall be calibrated to historical data referred to in point (c) of Article 325bc(4);

(v) unless stated otherwise in this Article, the institution's internal model shall be based on the same modelling assumptions as those used for the calculation of the expected shortfall risk measure referred to in point (a) of Article 325ba(1);

b the number of overshootings shall be equal to the greater of the number of overshootings under hypothetical and the actual changes in the value of the portfolio.

*TABLE 3*

| Number of overshootings | Add-on |
|---|---|
| Fewer than 5 | 0,00 |
| 5 | 0,20 |
| 6 | 0,26 |
| 7 | 0,33 |
| 8 | 0,38 |
| 9 | 0,42 |
| More than 9 | 0,50 |

In extraordinary circumstances, competent authorities may limit the add-on to that resulting from overshootings under back-testing hypothetical changes where the number of overshootings under back-testing actual changes does not result from deficiencies in the internal model.

7 Competent authorities shall monitor the appropriateness of the multiplication factor referred to in paragraph 5 and the compliance of trading desks with the back-testing requirements referred to in paragraph 3. Institutions shall promptly notify, the competent authorities of overshootings that result from their back-testing programme and provide an explanation for those overshootings, and in any case shall notify the competent authorities thereof no later than within five business days after the occurrence of an overshooting.

8 By way of derogation from paragraphs 2 and 6 of this Article, competent authorities may permit an institution not to count an overshooting where a one-day change in the value of its portfolio that exceeds the related value-at-risk number calculated by that institution's internal model is attributable to a non-modellable risk factor. To do so, the institution shall demonstrate to its competent authority that the stress scenario risk measure calculated in accordance with Article 325bk for that non-modellable risk factor is higher than the positive difference between the change in the value of the institution's portfolio and the related value-at-risk number.

9 **[**[F16]The FCA and PRA may each make**]** technical standards to specify the technical elements to be included in the actual and hypothetical changes to the value of the portfolio of an institution for the purposes of this Article.

[F17]...

**Textual Amendments**

**F16** Words in Art. 325bf(9) substituted (31.12.2020) by The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **59(2)(a)**; 2020 c. 1, Sch. 5 para. 1(1)

**F17** Words in Art. 325bf(9) omitted (31.12.2020) by virtue of The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **59(2)(b)**; 2020 c. 1, Sch. 5 para. 1(1)

*Article 325bg*

**Profit and loss attribution requirement**

1 An institution's trading desk meets the P&L attribution requirements where that trading desk complies with the requirements set out in this Article.

2 The P&L attribution requirement shall ensure that the theoretical changes in the value of a trading desk's portfolio, based on the institution's risk-measurement model, are sufficiently close to the hypothetical changes in the value of the trading desk's portfolio, based on the institution's pricing model.

3 For each position of a given trading desk, an institution's compliance with the P&L attribution requirement shall lead to the identification of a precise list of risk factors that are deemed appropriate for verifying the institution's compliance with the back-testing requirement set out in Article 325bf.

4 **[**[F18]The FCA and PRA may each make**]** technical standards to specify:

a the criteria necessary to ensure that the theoretical changes in the value of a trading desk's portfolio is sufficiently close to the hypothetical changes in the value of a trading desk's portfolio for the purposes of paragraph 2, taking into account international regulatory developments;

b the consequences for an institution where the theoretical changes in the value of a trading desk's portfolio are not sufficiently close to the hypothetical changes in the value of a trading desk's portfolio for the purposes of paragraph 2;

c the frequency at which the P&L attribution is to be performed by an institution;

d the technical elements to be included in the theoretical and hypothetical changes in the value of a trading desk's portfolio for the purposes of this Article;

e the manner in which institutions that use the internal model are to aggregate the total own funds requirement for market risk for all their trading book positions and non-trading book positions that are subject to foreign exchange risk or commodity risk, taking into account the consequences referred to in point (b).

**F19** …

**Textual Amendments**

**F18** Words in Art. 325bg(4) substituted (31.12.2020) by The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **60(2)(a)**; 2020 c. 1, Sch. 5 para. 1(1)

**F19** Words in Art. 325bg(4) omitted (31.12.2020) by virtue of The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **60(2)(b)**; 2020 c. 1, Sch. 5 para. 1(1)

*Article 325bh*

**Requirements on risk measurement**

1 Institutions using an internal risk-measurement model that is used to calculate the own funds requirements for market risk as referred to in Article 325ba shall ensure that that model meets all the following requirements:

a the internal risk-measurement model shall capture a sufficient number of risk factors, which shall include at least the risk factors referred to in Subsection 1 of Section 3 of Chapter 1a unless the institution demonstrates to the competent authorities that the omission of those risk factors does not have a material impact on the results of the P&L attribution requirement referred to in Article 325bg; an institution shall be able to explain to the competent authorities why it has incorporated a risk factor in its pricing model but not in its internal risk-measurement model;

b the internal risk-measurement model shall capture nonlinearities for options and other products as well as correlation risk and basis risk;

c the internal risk-measurement model shall incorporate a set of risk factors that correspond to the interest rates in each currency in which the institution has interest rate sensitive on- or off-balance-sheet positions; the institution shall model the yield curves using one of the generally accepted approaches; the yield curve shall be divided into various maturity segments to capture the variations of volatility of rates along the yield curve; for material exposures to interest-rate risk in the major currencies and markets, the yield curve shall be modelled using a minimum of six maturity segments, and the number of risk factors used to model the yield curve shall be proportionate to the nature and complexity of the institution's trading strategies, the model shall also capture the risk spread of less than perfectly correlated movements between different yield curves or different financial instruments on the same underlying issuer;

d the internal risk-measurement model shall incorporate risk factors corresponding to gold and to the individual foreign currencies in which the institution's positions are denominated; for CIUs, the actual foreign exchange positions of the CIU shall be taken into account; institutions may rely on third-party reporting of the foreign exchange position of the CIU, provided that the correctness of that report is adequately ensured; foreign exchange positions of a CIU of which an institution is not aware of shall be carved out from the internal models approach and treated in accordance with Chapter 1a;

e the sophistication of the modelling technique shall be proportionate to the materiality of the institutions' activities in the equity markets; the internal risk-measurement model shall use a separate risk factor at least for each of the equity markets in which the institution holds significant positions and at least one risk factor that captures systemic movements in equity prices and the dependency of that risk factor on the individual risk factors for each equity market;

f the internal risk-measurement model shall use a separate risk factor at least for each commodity in which the institution holds significant positions, unless the institution has a small aggregate commodity position compared to all its trading activities, in which case it may use a separate risk factor for each broad commodity type; for material exposures to commodity markets, the model shall capture the risk of less than perfectly correlated movements between commodities that are similar, but not identical, the exposure to changes in forward prices arising from maturity mismatches, and the convenience yield between derivative and cash positions;

g the proxies used shall show a good track record for the actual position held, shall be appropriately conservative, and shall be used only where the available data are insufficient, such as during the period of stress referred to in point (c) of Article 325bc(2);

h for material exposures to volatility risks in instruments with optionality, the internal risk-measurement model shall capture the dependency of implied volatilities across strike prices and options' maturities.

2 Institutions may use empirical correlations within broad categories of risk factors and, for the purpose of calculating the unconstrained expected shortfall measure $UES_t$ as referred to in Article 325bb(1), across broad categories of risk factors only where the institution's approach

for measuring those correlations is sound, consistent with the applicable liquidity horizons, and implemented with integrity.

F20 3 . . . . . .

**Textual Amendments**

**F20** Art. 325bh(3) omitted (31.12.2020) by virtue of The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **61**; 2020 c. 1, Sch. 5 para. 1(1)

*Article 325bi*

**Qualitative requirements**

1 Any internal risk-measurement model used for the purposes of this Chapter shall be conceptually sound, shall be calculated and implemented with integrity, and shall comply with all the following qualitative requirements:

a any internal risk-measurement model used to calculate capital requirements for market risk shall be closely integrated into the daily risk management process of the institution and shall serve as the basis for reporting risk exposures to senior management;

b an institution shall have a risk control unit that is independent from business trading units and that reports directly to senior management; that unit shall be responsible for designing and implementing any internal risk-measurement model; that unit shall conduct the initial and on-going validation of any internal model used for the purposes of this Chapter and shall be responsible for the overall risk management system; that unit shall produce and analyse daily reports on the output of any internal model used to calculate capital requirements for market risk, as well as reports on the appropriateness of measures to be taken in terms of trading limits;

c the management body and senior management shall be actively involved in the risk-control process, and the daily reports produced by the risk control unit shall be reviewed at a level of management with sufficient authority to require the reduction of positions taken by individual traders and to require the reduction of the institution's overall risk exposure;

d the institution shall have a sufficient number of staff with a level of skills that is appropriate to the sophistication of the internal risk-measurement models, and a sufficient number of staff with skills in the trading, risk control, audit and back-office areas;

e the institution shall have in place a documented set of internal policies, procedures and controls for monitoring and ensuring compliance with the overall operation of its internal risk-measurement models;

f any internal risk-measurement model, including any pricing model, shall have a proven track record of being reasonably accurate in measuring risks, and shall not differ significantly from the models that the institution uses for its internal risk management;

g the institution shall frequently conduct rigorous programmes of stress testing, including reverse stress tests, which shall encompass any internal risk-measurement model; the results of those stress tests shall be reviewed by senior management at least on a monthly basis and shall comply with the policies and limits approved by the management body; the institution shall take appropriate actions where the results of those stress tests show excessive losses arising from the trading's business of the institution under certain circumstances;

h the institution shall conduct an independent review of its internal risk-measurement models, either as part of its regular internal auditing process, or by mandating a third-party undertaking to conduct that review, which shall be conducted to the satisfaction of the competent authorities.

For the purposes of point (h) of the first subparagraph, a third-party undertaking means an undertaking that provides auditing or consulting services to institutions and that has staff who have sufficient skills in the area of market risk in trading activities.

2 The review referred to in point (h) of paragraph 1 shall include both the activities of the business trading units and the independent risk control unit. The institution shall conduct a review of its overall risk management process at least once a year. That review shall assess the following:

a the adequacy of the documentation of the risk management system and process and the organisation of the risk control unit;

b the integration of risk measures into daily risk management and the integrity of the management information system;

c the processes the institution employs for approving the risk-pricing models and valuation systems that are used by front and back-office personnel;

d the scope of risks captured by the model, the accuracy and appropriateness of the risk-measurement system, and the validation of any significant changes to the internal risk-measurement model;

e the accuracy and completeness of position data, the accuracy and appropriateness of volatility and correlation assumptions, the accuracy of valuation and risk sensitivity calculations, and the accuracy and appropriateness for generating data proxies where the available data are insufficient to meet the requirement set out in this Chapter;

f the verification process that the institution employs to evaluate the consistency, timeliness and reliability of the data sources used to run any of its internal risk-measurement models, including the independence of those data sources;

g the verification process that the institution employs to evaluate back-testing requirements and P&L attribution requirements that are conducted in order to assess the accuracy of its internal risk-measurement models;

h where the review is performed by a third-party undertaking in accordance with point (h) of paragraph 1 of this Article, the verification that the internal validation process set out in Article 325bj fulfils its objectives.

3 Institutions shall update the techniques and practices they use for any of the internal risk-measurement models used for the purposes of this Chapter to take into account the evolution of new techniques and best practices that develop in respect of those internal risk-measurement models.

*Article 325bj*

**Internal validation**

1 Institutions shall have processes in place to ensure that any internal risk-measurement models used for the purposes of this Chapter have been adequately validated by suitably qualified parties that are independent of the development process, in order to ensure that any such models are conceptually sound and adequately capture all material risks.

2 Institutions shall conduct the validation referred to in paragraph 1 in the following circumstances:

a when any internal risk-measurement model is initially developed and when any significant changes are made to that model;

b on a periodic basis, and where there have been significant structural changes in the market or changes to the composition of the portfolio which might lead to the internal risk-measurement model no longer being adequate.

3 The validation of the internal risk-measurement models of an institution shall not be limited to back-testing and P&L attribution requirements, but shall, at a minimum, include the following:

a tests to verify whether the assumptions made in the internal model are appropriate and do not underestimate or overestimate the risk;

b own internal model validation tests, including back-testing in addition to the regulatory back-testing programmes, in relation to the risks and structures of their portfolios;

c the use of hypothetical portfolios to ensure that the internal risk-measurement model is able to account for particular structural features that may arise, for example, material basis risks and concentration risk, or the risks associated with the use of proxies.

*Article 325bk*

**Calculation of stress scenario risk measure**

1 The ‘ stress scenario risk measure ’ of a given non-modellable risk factor means the loss that is incurred in all trading book positions or non-trading book positions that are subject to foreign exchange or commodity risk of the portfolio which includes that non-modellable risk factor when an extreme scenario of future shock is applied to that risk factor.

2 Institutions shall develop appropriate extreme scenarios of future shock for all non-modellable risk factors, to the satisfaction of their competent authorities.

3 **[**F21The FCA and PRA may each make**]** technical standards to specify:

a how institutions are to develop extreme scenarios of future shock applicable to non-modellable risk factors and how they are to apply those extreme scenarios of future shock to those risk factors;

b a regulatory extreme scenario of future shock for each broad sub-category of risk factors listed in Table 2 of Article 325bd, which institutions may use when they are unable to develop an extreme scenario of future shock in accordance with point (a) of this subparagraph, or which competent authorities may require that institution apply if those authorities are not satisfied with the extreme scenario of future shock developed by the institution;

c the circumstances under which institutions may calculate a stress scenario risk measure for more than one non-modellable risk factor;

d how institutions are to aggregate the stress scenario risk measures of all non-modellable risk factors included in their trading book positions and non-trading book positions that are subject to foreign exchange risk or commodity risk.

In developing those F22... technical standards, **[**F23the FCA and PRA**]** shall take into consideration the requirement that the level of own funds requirements for market risk of a non-modellable risk factor as set out in this Article shall be as high as the level of own funds requirements for market risk that would have been calculated under this Chapter if that risk factor were modellable.

F24 …

**Textual Amendments**

**F21** Words in Art. 325bk(3) substituted (31.12.2020) by The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **62(2)(a)**; 2020 c. 1, Sch. 5 para. 1(1)

**F22** Words in Art. 325bk(3) omitted (31.12.2020) by virtue of The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **62(2)(b)(i)**; 2020 c. 1, Sch. 5 para. 1(1)

**F23** Words in Art. 325bk(3) substituted (31.12.2020) by The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **62(2)(b)(ii)**; 2020 c. 1, Sch. 5 para. 1(1)

**F24** Words in Art. 325bk(3) omitted (31.12.2020) by virtue of The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **62(2)(c)**; 2020 c. 1, Sch. 5 para. 1(1)

*Section 3*

## *Internal default risk model*

*Article 325bl*

### Scope of the internal default risk model

1 All the positions of an institution that have been assigned to the trading desks for which the institution has been granted permission as referred to in Article 325az(2) shall be subject to an own funds requirement for default risk where those positions contain at least one risk factor that has been mapped to the broad categories of ‘equity’ or ‘credit spread’ risk factors in accordance with Article 325bd(1). That own funds requirement, which is incremental to the risks captured by the own funds requirements referred to in Article 325ba(1), shall be calculated using the institution's internal default risk model. That model which shall comply with the requirements laid down in this Section.

2 For each of the positions referred to in paragraph 1, an institution shall identify one issuer of traded debt or equity instruments related to at least one risk factor.

*Article 325bm*

### Permission to use an internal default risk model

1 Competent authorities shall grant an institution permission to use an internal default risk model to calculate the own funds requirements referred to in Article 325ba(2) for all the trading book positions referred to in Article 325bl that are assigned to a trading desk for which the internal default risk model complies with the requirements set out in Articles 325bi, 325bj, 325bn, 325bo and 325bp.

2 Where the trading desk of an institution, to which at least one of the trading book positions referred to in Article 325bl has been assigned, does not meet the requirements set out in paragraph 1 of this Article, the own funds requirements for market risk of all positions in that trading desk shall be calculated in accordance with the approach set out in Chapter 1a.

*Article 325bn*

**Own funds requirements for default risk using an internal default risk model**

1 Institutions shall calculate the own funds requirements for default risk using an internal default risk model for the portfolio of all trading book positions as referred to in Article 325bl as follows:

a the own funds requirements shall be equal to a value-at-risk number measuring potential losses in the market value of the portfolio caused by the default of issuers related to those positions at the 99,9 % confidence interval over a one-year time horizon;

b the potential loss referred to in point (a) means a direct or indirect loss in the market value of a position which was caused by the default of the issuers and which is incremental to any losses already taken into account in the current valuation of the position; the default of the issuers of equity positions shall be represented by the value for the issuers' equity prices being set to zero;

c institutions shall determine default correlations between different issuers on the basis of a conceptually sound methodology, using objective historical data on market credit spreads or equity prices that cover at least a 10 year period that includes the stress period identified by the institution in accordance with Article 325bc(2); the calculation of default correlations between different issuers shall be calibrated to a one-year time horizon;

d the internal default risk model shall be based on a one-year constant position assumption.

2 Institutions shall calculate the own funds requirement for default risk using an internal default risk model as referred to in paragraph 1 on at least a weekly basis.

3 By way of derogation from points (a) and (c) of paragraph 1, an institution may replace the one-year time horizon with a time horizon of sixty days for the purpose of calculating the default risk of some or all of the equity positions, where appropriate. In such case, the calculation of default correlations between equity prices and default probabilities shall be consistent with a time horizon of sixty days and the calculation of default correlations between equity prices and bond prices shall be consistent with a one-year time horizon.

*Article 325bo*

**Recognition of hedges in an internal default risk model**

1 Institutions may incorporate hedges in their internal default risk model and may net positions where the long positions and short positions relate to the same financial instrument.

2 In their internal default risk models, institutions may only recognise hedging or diversification effects associated with long and short positions involving different instruments or different securities of the same obligor, as well as long and short positions in different issuers by explicitly modelling the gross long and short positions in the different instruments, including modelling of basis risks between different issuers.

3 In their internal default risk models, institutions shall capture material risks between a hedging instrument and the hedged instrument that could occur during the interval between the maturity of a hedging instrument and the one-year time horizon, as well as the potential for significant basis risks in hedging strategies that arise from differences in the type of

product, seniority in the capital structure, internal or external ratings, maturity, vintage and other differences. Institutions shall recognise a hedging instrument only to the extent that it can be maintained even as the obligor approaches a credit event or other event.

*Article 325bp*

**Particular requirements for an internal default risk model**

1 The internal default risk model referred to in Article 325bm(1) shall be capable of modelling the default of individual issuers as well as the simultaneous default of multiple issuers, and shall take into account the impact of those defaults in the market values of the positions that are included in the scope of that model. For that purpose, the default of each individual issuer shall be modelled using two types of systematic risk factors.

2 The internal default risk model shall reflect the economic cycle, including the dependency between recovery rates and the systematic risk factors referred to in paragraph 1.

3 The internal default risk model shall reflect the nonlinear impact of options and other positions with material nonlinear behaviour with respect to price changes. Institutions shall also have due regard to the amount of model risk inherent in the valuation and estimation of price risks associated with those products.

4 The internal default risk model shall be based on data that are objective and up-to-date.

5 To simulate the default of issuers in the internal default risk model, the institution's estimates of default probabilities shall meet the following requirements:

a the default probabilities shall be floored at 0,03 %;

b the default probabilities shall be based on a one-year time horizon, unless stated otherwise in this Section;

c the default probabilities shall be measured using, solely or in combination with current market prices, data observed during a historical period of at least five years of actual past defaults and extreme declines in market prices equivalent to default events; default probabilities shall not be inferred solely from current market prices;

d an institution that has been granted permission to estimate default probabilities in accordance with Section 1 of Chapter 3 of Title II shall use the methodology set out therein to calculate default probabilities;

e an institution that has not been granted permission to estimate default probabilities in accordance with Section 1 of Chapter 3 of Title II shall develop an internal methodology or use external sources to estimate default probabilities; in both situations, the estimates of default probabilities shall be consistent with the requirements set out in this Article.

6 To simulate the default of issuers in the internal default risk model, the institution's estimates of loss given default shall meet the following requirements:

a the loss given default estimates are floored at 0 %;

b the loss given default estimates shall reflect the seniority of each position;

c an institution that has been granted permission to estimate loss given default in accordance with Section 1 of Chapter 3 of Title II shall use the methodology set out therein to calculate loss given default estimates;

d an institution that has not been granted permission to estimate loss given default in accordance with Section 1 of Chapter 3 of Title II shall develop an internal methodology or use external sources to estimate loss given default; in both situations, the estimates of loss given default shall be consistent with the requirements set out in this Article.

7 As part of the independent review and validation of the internal models that they use for the purposes of this Chapter, including for the risk-measurement system, institutions shall:

a verify that their approach for the modelling of correlations and price changes is appropriate for their portfolio, including the choice and weights of the systematic risk factors in the model;

b perform a variety of stress tests, including sensitivity analyses and scenario analyses, to assess the qualitative and quantitative reasonableness of the internal default risk model, in particular with regard to the treatment of concentrations; and

c apply appropriate quantitative validation including relevant internal modelling benchmarks.

The tests referred to in point (b) shall not be limited to the range of past events experienced.

8 The internal default risk model shall appropriately reflect issuer concentrations and concentrations that can arise within and across product classes under stressed conditions.

9 The internal default risk model shall be consistent with the institution's internal risk management methodologies for identifying, measuring, and managing trading risks.

10 Institutions shall have clearly defined policies and procedures for determining the default assumptions for correlations between different issuers in accordance with point (c) of Article 325bn(1) and the preferred choice of method for estimating the default probabilities in point (e) of paragraph 5 of this Article and the loss given default in point (d) of paragraph 6 of this Article.

11 Institutions shall document their internal models so that their correlation assumptions and other modelling assumptions are transparent to the competent authorities.

12 **[**F25The FCA and PRA may each make**]** technical standards to specify the requirements that an institution's internal methodology or external sources are to fulfil for estimating default probabilities and losses given default in accordance with point (e) of paragraph 5 and point (d) of paragraph 6.

F26...**]]**

**Textual Amendments**

**F25** Words in Art. 325bp(12) substituted (31.12.2020) by The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **63(2)(a)**; 2020 c. 1, Sch. 5 para. 1(1)

**F26** Words in Art. 325bp(12) omitted (31.12.2020) by virtue of The Capital Requirements (Amendment) (EU Exit) Regulations 2019 (S.I. 2019/1232), regs. 1(3), **63(2)(b)**; 2020 c. 1, Sch. 5 para. 1(1)

**Editorial Information**

**X1** Substituted by Corrigendum to Regulation (EU) No 575/2013 of the European Parliament and of the Council of 26 June 2013 on prudential requirements for credit institutions and investment firms and amending Regulation (EU) No 648/2012 (OJ L 176, 27.6.2013, p. 1).

**Textual Amendments**

**F1** Inserted by Regulation (EU) 2019/876 of the European Parliament and of the Council of 20 May 2019 amending Regulation (EU) No 575/2013 as regards the leverage ratio, the net stable funding ratio, requirements for own funds and eligible liabilities, counterparty credit risk, market risk, exposures to

central counterparties, exposures to collective investment undertakings, large exposures, reporting and disclosure requirements, and Regulation (EU) No 648/2012 (Text with EEA relevance).

**Status:**
Point in time view as at 31/12/2020.

**Changes to legislation:**
Regulation (EU) No 575/2013 of the European Parliament and of the Council, CHAPTER 1b is up to date with all changes known to be in force on or before 19 July 2024. There are changes that may be brought into force at a future date. Changes that have been made appear in the content and are referenced with annotations.