



**BASEL III MONITORING EXERCISE –
RESULTS BASED ON DATA AS OF
31 December 2022**

(ANNEX – ANALYSIS OF EU SPECIFIC ADJUSTMENTS)

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Abbreviations

BCBS	Basel Committee on Banking Supervision
CET1	Common equity tier 1
CRD	Capital requirements directive
CRR	Capital requirements regulation
CVA	Credit value adjustment
EBA	European Banking Authority
G-SIIs	Global systemically important institutions
LR	Leverage ratio
RWA	Risk-weighted assets
EC	European Commission

1. General remarks

1.1 Background and rationale

1. The Basel III monitoring report (hereinafter “the main report”) provides an assessment of the impact of the Basel III reform package, as agreed in December 2017 by the Group of Central Bank Governors and Heads of Supervision, on a representative sample of EU/EEA banks. It therefore only presents the impact of the “pure” implementation of the Basel III reform package.
2. The current CRD 5-CRR 2 framework however contains EU specific adjustments that are not part of the Basel III framework (such as the SME and the infrastructure supporting factors) and which are therefore not considered in the main report.
3. Additionally, the specificities of the future implementation of the Basel III reform package in Europe are currently under discussion at the EU bodies. In October 2021 the European Commission published its legislative proposal to amend the Capital Requirements Regulation (Regulation 2013/575/EU)¹; henceforth the “CRR3 European Commission’s proposal”. Such proposal was brought to discussion to the European Council and the European Parliament. In November 2022 the Council published its position on the implementation of the reforms² (henceforth the “CRR3 Council’s proposal) which included some amendments to the CRR3 European Commission’s proposal. In January 2023 also the Parliament finalised its proposal (henceforth the “CRR3 Parliament’s proposal) including additional suggestions. The three proposals (henceforth the “CRR3 proposals”) include some additional EU specific adjustments that are not part of the pure Basel III framework, and therefore not considered in the main report. In June 2023, the Parliament and the EU Council reached a provisional agreement on the implementation of Basel III framework in the European Union. The final text of the implementing regulation was not available at the time of the drafting of this report.
4. This annex provides an assessment of the impact of the Basel III framework that includes the most impactful of the EU specific adjustments that are included in the aforementioned proposals. The purpose of this assessment is to quantify the estimated impact of these adjustments relative to the impact of the implementation of the pure Basel III reform. Since at the time of writing this annex the final CRR3 agreement was still in its final drafting phase it could not be assumed that the details of the final implementing regulation would exactly follow the aforementioned proposals. Therefore, this annex aims at making a quantitative assessment of the proposed EU specific adjustments based on the expectation that these proposals will remain in the final text of the implementing regulation once it is published. This does however not imply that the EBA assumes that the final CRR3 text will exactly reflect the scenario defined for the purpose of this annex.

¹ <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0664>

² <https://www.consilium.europa.eu/en/press/press-releases/2022/11/08/banking-sector-council-agrees-its-position-on-the-implementation-of-basel-iii-reforms/>

5. The main results from considering these EU specificities are that the overall increase in T1 MRC, under Pillar 1 requirements, is reduced by -3.6 p.p. compared to the “pure” Basel III scenario, for all EU banks. For the group of EU G-SIIs, this reduction amounts to -4.0 p.p. The final impact is therefore estimated at 9.0% for all banks and 16.0% for the EU G-SIIs. When also taking into account the Pillar 2 and EU specific buffers, the impact increases for all EU banks. In this case, the final increase in T1 MRC for all EU banks is estimated at 9.9% and for the group of EU G-SIIs at 14.7%.

1.2 Methodology and sample

i. Sample and sources of information

6. The results of this annex are based on the QIS data collection templates and, in particular, on the additional EU panels and templates that were introduced in the December 2022 QIS data collection to gather data on certain EU specific adjustments.
7. The sample of this annex mirrors the sample of the main report. If no data was provided to measure the impact of a given EU adjustment, or the data was not considered of sufficient quality, the affected bank is included in the sample but no impact is assigned to the relevant EU adjustment for this bank.

ii. Methodology and scenarios

8. The methodology of this annex largely follows the methodology used in the main report. The annex does however consider additional implementation features that are either part of the current CRD 5-CRR 2 framework or of the CRR 3 Proposals. Table 1 presents the main implementation features of the scenario measured in this annex in comparison to the one used in the main report. All results shown in this report follow the Basel III national discretion of setting ILM equal to 1 for the purpose of calculating Operational risk RWAs.

Table 1: Comparison of the main implementation features of the analysis of EU specific adjustments and the main Basel III report.

Risk Area	Main report - Basel III (applying ILM = 1)	Annex analysis of EU specific adjustments- Basel III (applying ILM = 1) with EU adjustments
Credit Risk	<ul style="list-style-type: none"> • SA-CR: ECRA framework adopted • SA-CR: loan-splitting method adopted on GRRE, GCRE, IPCRE + hard test 	<ul style="list-style-type: none"> • SA-CR: ECRA framework adopted • SA-CR: loan-splitting method adopted on GRRE, GCRE, IPCRE + hard test • SME supporting factor (SA and IRB) • Infrastructure supporting factor (SA and IRB) • CRR 3 EC proposal for equity (SA and IRB) • SFTs Postponement of minimum haircut floors (SA and IRB) • CRR3 Council proposal for trade finance CCFs (SA and IRB)

		<ul style="list-style-type: none"> • CRR3 Council proposal for revaluation of Real Estate (SA only) • CRR3 EC proposal for PSE and RGLA (IRB only) •
CVA	<ul style="list-style-type: none"> • Final CVA framework (July 2020) • No CVA exemptions • CVA simplified method (based on EUR 100 billion threshold) 	<ul style="list-style-type: none"> • Final CVA framework (July 2020) • CVA exemptions • CVA simplified method (based on OEM eligibility criteria)
Transitional arrangements Output floor	<ul style="list-style-type: none"> • Output floor calibration (2023-2028) 	<ul style="list-style-type: none"> • Output floor calibration (2025-2030) • CRR 3 Proposal transitional arrangements for unrated corporates • CRR 3 Proposal transitional arrangements for Residential Real Estate exposures • CRR 3 Proposal transitional arrangements for the SACCR Calibration

9. The features considered in this annex are as follows:

- **SME supporting factor:** maintaining the supporting factor for exposures to SMEs envisaged in the current CRD 5-CRR 2 framework under SA and IRB (also including it in non-modelling RWAs for the purpose of the output floor calculation). Under the SA framework, the RW for unrated corporate SME exposures is also adjusted to maintain the one arising from the CRD 5-CRR 2 framework.
- **Infrastructure supporting factor:** maintaining the supporting factor for exposures to infrastructure projects envisaged in the current CRD 5-CRR 2 framework under SA and IRB (also including it in non-modelling RWAs for the purpose of the output floor calculation);
- **CRR 3 European Commission’s proposal for equity:** including the preferential risk-weight foreseen in article 133 and article 495a of the CRR 3 Proposal for certain types of equity exposures under the SA and IRB (also including it in non-modelling RWAs for the purpose of the output floor calculation).
- **Postponement of minimum collateral haircut floors for SFTs (SA and IRB):** not including the minimum collateral haircut floors as defined by the comprehensive approach for collateralised transactions (CA(SH)) which is applicable in the Basel Framework (2023) to SFT exposures under SA and IRB (also including it in non-modelling RWAs for the purpose of the output floor calculation).

- **CRR3 Council’s proposal for CCFs:** including the application of a lower CCF (20% instead of 50%³) to trade finance transaction-related contingent items as foreseen in article 111⁴ of the Council proposal.
- **CRR3 Council’s proposal for the revaluation of real estate exposures:** including the requirement to make upwards or downwards adjustments (unlike in the Basel III standards⁵) following the regular monitoring of the value of property pledged as collateral. A revaluation is only allowed up to the average value over the last six years as foreseen in article 229 of the Council proposal.
- **CRR 3 European Commission’s proposal for PSE and RGLA:** including an alternative treatment for exposures under the IRB that are classified as regional governments and local authorities (hereafter RGLA) as well as public sector entities (hereafter PSE) as defined in Article 151(11) of the CRR 3 Proposal.
- **CVA exemptions:** maintaining the CVA exemptions envisaged in the current CRD 5-CRR 2 framework in the own fund requirements for CVA risks;
- **CVA simplified method:** reusing the eligibility criteria of the original exposure method (OEM) (see Article 273a(2) of the CRR2)⁶ for the eligibility criteria of the simplified method for the own funds requirements for CVA risks;
- **CRR 3 Proposal transitional arrangements to the output floor:** including some of the transitional arrangements that are foreseen in article 465 of the CRR 3 proposal for the purpose of the output floor calculation. Those transitional arrangement will imply a temporary preferential treatment to calculate the non-modelling RWAs that are used calculate the output floor impact on a transitional basis:
 - **Unrated corporates:** including the transitional preferential treatment to exposures to corporates as defined in article 465 (3) of the CRR 3 proposal.
 - **SA-CCR Calibration:** including the transitional calibration for the application of the SA-CCR approach ($\alpha = 1$) as defined in article 465(4) of the CRR 3 proposal.
 - **Residential Real Estate (hereafter ‘RRE’):** including the transitional preferential treatment to exposures secured by real estate if institutions pass the so-called “super hard test” as defined in article 465 (5) of the CRR 3 proposal.

³ Under the Basel III framework, these type of exposures are subject to a credit conversion factor (CCF) of 50% (CRE20.42 of the Basel III agreement).

⁴ Also referring to the Annex for the definition of CCFs buckets.

⁵ The Basel standards generally cap the value of the property recognised for prudential purposes at the value measured at loan origination, unless modifications “unequivocally” increase the value of the property or the national competent authority has exercise the discretion to request a downward adjustment.

⁶ Article 273a(2) of the CRR2 specifies that an institution may use the OEM, provided that the size of its on- and off-balance-sheet derivative business is equal to or less than both of the following thresholds on the basis of an assessment carried out on a monthly basis using the data as of the last day of the month: (a) 5 % of the institution's total assets; b) EUR 100 million.

- **Output floor calibration:** including the phased-in period for the output floor calibration as foreseen in the CRR 3 proposal (2025-2030) which differs from the period foreseen in the pure Basel III agreement (2023-2028).

10. The main report calculates the Minimum Required Capital by multiplying the RWAs by the sum of the following capital requirements:

- G-SIIs surcharge (if any),
- Capital conservation buffer, and
- Pillar I minimum requirements.

In order to facilitate the comparison with the results included in the main report, as a general rule, this annex follows the same methodology. However, in addition to the existing EU specific features described in Table 1, section 2.4 *Introduction of EU buffers and Pillar 2 capital requirements* of this annex adds to the minimum capital requirements all other applicable capital buffers and P2R requirements, namely:

- Max (G-SIIs , OSIIs)
- Systemic risk buffer (SyRB)
- Conservation buffer due to macro-prudential or systemic risk identified at the level of a Member State
- Countercyclical buffer
- Pillar II capital requirements (P2R)

11. When applying these buffers, section 2.4 of this annex follows the provisions included in Article 104a paragraph 6 of the CRD 6 proposal with regards to the application of P2R and the SyRB capital requirements. More specifically, the CRD 6 proposal indicates that the P2R and SyRB buffers should be “frozen” until a review of their calibration is concluded, the to avoid such automatic increases in the amount of required regulatory capital that may arise from higher RWAs when the institution becomes bound by the output floor, all else being equal.

As of December 2022, the only data available for P2R and the EU buffers were those applicable to institutions on that date, and therefore the available data does not consider the above mentioned provisions of the CRD 6 proposal. To avoid any arithmetic increases in the MRC calculation that are driven by the output floor impact, the P2R and SRB requirements have been applied as percentages to the pre-floored RWAs only. As a result, the P2R and SyRB requirements will not automatically increase with the implementation of the output floor, but they may still vary due to the changes in pre-floored RWAs. The following equation summarises the formula that was used to calculate the MRC in section 2.4 *Introduction of EU buffers and Pillar 2 capital requirements* of this annex:

$$\begin{aligned}
 &MRC = \text{sum of:} \\
 &\text{Floored RWA} \times [\text{Pillar 1 minima} + \text{CCB buffer} + \text{CCyCB buffer} + \max(\text{G-SII, O-SII buffer})]; \\
 &\text{Pre-floor RWA} \times (\text{Pillar 2 requirements} + \text{SyRB buffer})
 \end{aligned}$$

iii. Data quality issues and interpretation of the results

12. The results should be interpreted with caution, considering data quality and several simplifying and conservative assumptions that together may result in an overestimation of the capital impact:

- Treatment of data quality issues: If no data was provided or if the data provided to measure the impact of a given EU adjustment was not considered of sufficient quality, no impact was assigned to the relevant EU adjustment for the affected bank. As a result, there might be an underestimation of the beneficial effect of EU specific adjustments, that would in turn result in an overestimation of the capital impact.
- Static balance sheet assumption: institutions do not react to the revised requirements by adjusting their businesses and/or managing their regulatory capital costs.
- Static requirements assumption: Pillar 2 and combined buffer requirements as of December 2022, defined as a percentage of the bank's RWA, were used both for the CRR baseline and the EU-specific scenario. Higher RWA resulting from the implementation of the revised framework may lead – in some cases – to a revision and, possibly, re-calibration of the Pillar 2 and buffer requirements.
- Profit retention to cover capital shortfall: the cumulative impact analysis assumes no role for profit retention in rebuilding the capital base.

13. Additionally, the following methodological changes should be considered when comparing results shown in this annex with the results shown in the annex based on data as of December 2021:

- The current annex introduces two additional EU adjustments that were not considered in the previous year. Specifically, the CRR3 Council proposal for trade finance CCFs and the CRR3 Council's proposal for the revaluation of real estate exposures.
- The methodology used to assess the quality of the data for the SME and Infrastructure supporting factors adjustments was defined at a more granular level. As a result, the data reported by institutions will be considered in the calculation of the impact if for a specific portfolio the data quality is considered as sufficient, resulting in less banks being assigned no impact to these EU adjustments.

2. Main Findings

2.1 Cumulative impact analysis of the final Basel III reform

14. Based on December 2022 data, the implementation of the final Basel III standards under the EU Specific scenario is expected to increase European banks' T1 MRC by 9.0%, as shown in Table 2. The output floor (+6.7%) remains the key driver of the impact, with, operational risk (+2.2%) and market risk (+1.2%)⁷, being the second and third most important drivers. Credit risk (+0.6%) and the revised CVA framework (+0.4%) contribute less to the total impact as a result of the introduction of the EU specific adjustments in the EU specific scenario. The increase in T1 MRC following the implementation of the risk-based reforms, is partially offset by the negative (-1.7%) leverage ratio impact.⁸
15. In line with the results shown in the main report, G-SIIs are the category of banks that shows a higher increase in T1 MRC (+16%) under the EU Specific scenario mainly driven by the higher output floor (+7.7%), operational risk (+3.1%) and the market risk impacts (+2.1%). Moreover, G-SIIs are the only category of banks showing a positive impact of the leverage ratio (+0.9%). Such impact arises from three G-SIIs for which the leverage ratio becomes binding under the revised framework. Group 2 banks are the category with the lowest increase in T1 MRC (+3.6%) under the EU Specific scenario due to the lower impact in market risk, CVA, operational risk and output floor category and the more offsetting effect of the Leverage ratio (-2.6%).
16. Compared to the results shown in the main report, the implementation of the final Basel III standards under the EU Specific scenario is expected to increase European banks' T1 MRC by 3.6 p.p. less (Table 2). The drivers of such reduction are credit risk (-3.6 p.p.) and CVA (-2.0 p.p.). A slight decrease in the impact of the output floor (-0.1 p.p.) also contributes to the MRCs decrease. More importantly, the reductions in total MRCs are partially offset by an increase in the Leverage Ratio impact (2.1 p.p.) which is due to the interaction between the risk-based MRCs and the Leverage ratio MRCs. Lower risk-based MRCs imply that the Leverage Ratio becomes more binding for a subset of institutions.
17. Group 2 banks benefit more than other categories of banks of the introduction of the EU specific adjustments (-5.3 p.p.). The main driver of the higher reduction in MRC is credit risk (-5.7 p.p.) due to the effect of the introduction of the EU adjustments in the Standardised Approach reform (-4.1 p.p.). Such effect is not fully compensated by the lower reduction in MRC showed for CVA (-0.7 p.p.). G-SIIs also show a more beneficial effect of the introduction of the EU specific adjustment than the average European bank (-4.0 p.p.). The main driver of the higher reduction

⁷ As in the main report, the market risk impact is based on the 'conservative estimation' that adjust the bias identified in the equity investment in funds (EIFs) impact reported by large institutions.

⁸ As explained in the main report, the negative Leverage ratio impact reflects the fact that some banks, which are constrained by the leverage ratio in the current framework, will be less constrained by the leverage ratio in the revised framework. In the revised framework, the higher impact on the risk-based requirements means that the leverage ratio add-on requirement will be smaller than the current add-on requirement, and the leverage ratio requirement will be less binding on average.

in MRC is credit risk (-4.3 p.p.) due to the effect of the introduction of the EU adjustments in the IRB Approach (-3.4 p.p.). The introduction of the CVA exemptions also has a more important effect in the G-SIIs category (-2.4 p.p.). These effects are partially offset by the more important increase in the Leverage Ratio impact (2.6 p.p.) in comparison with other bank categories.

18. The comparison with the results using data as of December 2021, shows that the introduction of the EU adjustments results in a higher reduction of the T1 MRC increase as of December 2022 (-3.6 p.p. versus -3.2⁹ p.p. as of December 2021) mainly driven by the EU credit risk adjustments (-3.6 versus -2.7¹⁰ p.p. as of December 2021). The rationale behind the higher reduction is mainly methodological. On one hand, the introduction of CRR3 Council proposal for trade finance CCFs, that was not considered in last's year analysis, reduces the contribution of the credit risk reform to the total impact by -0.4 p.p. (Table 3). On the other hand, the introduction of the SME supporting factor reduces the contribution of the credit risk reform to the total impact more importantly (-2.2 versus -1.6 p.p. as of December 2021), following the methodological change explained in section 1.2.

Table 2: Delta of the change in total T1 MRC under Pillar 1 requirements, as a percentage of the overall current Tier 1 MRC, between the Basel III and the EU specific scenario (full implementation of Basel III (2033))

Bank group	Scenario	Credit risk				Market risk	CVA	Op Risk	Output floor	Other Pillar 1	Total risk-based	Revised LR	Total
		SA	IRB	Securitisation	CCPs								
All banks	Basel III (ILM = 1)	2.6	1.6	0.0	0.0	1.2	2.4	2.2	6.8	-0.4	16.3	-3.8	12.6
	Delta	-1.4	-2.2	0.0	0.0	0.0	-2.0	0.0	-0.1	0.0	-5.62	2.1	-3.6
	EU-Specific (ILM = 1)	1.2	-0.6	0.0	0.0	1.2	0.4	2.2	6.7	-0.4	10.7	-1.7	9.0
Group 1	Basel III (ILM = 1)	1.9	1.6	0.0	0.0	1.3	2.6	2.6	7.4	-0.5	17.0	-3.7	13.3
	Delta	-0.8	-2.4	0.0	0.0	0.0	-2.2	0.0	0.0	0.0	-5.5	2.2	-3.3
	EU-Specific (ILM = 1)	1.1	-0.8	0.0	0.0	1.3	0.4	2.6	7.4	-0.5	11.5	-1.5	10.0
Of which: G-SIIs	Basel III (ILM = 1)	2.0	4.0	0.0	0.1	2.1	3.1	3.1	7.5	-0.3	21.7	-1.7	20.0
	Delta	-0.8	-3.4	0.0	0.0	0.0	-2.4	0.0	0.2	0.0	-6.6	2.6	-4.0
	EU-Specific (ILM = 1)	1.2	0.6	0.0	0.1	2.1	0.7	3.1	7.7	-0.3	15.1	0.9	16.0
Group 2	Basel III (ILM = 1)	6.0	1.9	0.0	0.0	0.4	1.0	0.5	3.2	-0.1	12.9	-4.0	8.9
	Delta	-4.1	-1.6	0.0	0.0	0.0	-0.7	0.0	-0.3	0.0	-6.6	1.4	-5.3
	EU-Specific (ILM = 1)	1.9	0.3	0.0	0.0	0.4	0.3	0.5	2.9	-0.1	6.3	-2.6	3.6

Source: EBA QIS data (December 2022), sample 157 banks

⁹ As shown in the joint [EBA-ECB-SSM Blogspot](#) which clarifies that the Commission's proposal would reduce by 3.2 percentage points the expected increase in Tier 1 aggregate capital requirements stemming from the Basel III reform at the end of the phase-in period when the decision to use ILM=1 for operational risk is not included. This is a legitimate choice, as the Basel agreement left this decision open to the discretion of the authorities. This decision implies a further alleviation of average requirements of 110 basis points as shown in the Basel III Monitoring exercise – Results as of 31 December 2021 (Annex – Analysis of EU Specific adjustments).

¹⁰ See Basel III Monitoring exercise – Results as of 31 December 2021 (Annex – Analysis of EU Specific adjustments).

19. As explained in section 1.2 Methodology and sample, the impact figures in this annex include the effect of EU specific adjustments that are either part of the current CRD 5-CRR 2 framework or of the CRR3 proposals. Table 3 shows the decomposition of these effects for the EU average bank.
20. The reduction of the T1 MRC impact under the EU specific scenario is mainly driven by those EU specific adjustments that are part of the current CRD 5-CRR 2 framework. In comparison with the implementation of the final Basel III pure standards, the implementation considering those features is expected to increase European banks' T1 MRC by 2.6 p.p. less (Table 3). The main driver of such reduction is the introduction of the SME and Infrastructure supporting factors that reduce the contribution of the credit risk reform (both SA and IRB) to the total T1 MRC change by 2.2 p.p. The implementation of the CVA exemptions, would reduce the contribution of CVA risk to the total MRC change by 1.9 p.p. compared to the pure Basel III implementation scenario. A slight increase in the impact of the output floor (0.1 p.p.) and a more binding Leverage ratio (1.6 p.p.) partly offset these MRCs decreases.
21. In contrast, those features that are part of the CRR 3 proposals contribute less to the reduction of the total MRC impact (-1.0 p.p. as shown in Table 3). The postponement of the minimum haircut floors, the more favorable treatment of equity exposures and the introduction of a reduced CCF for trade finance contingent items reduce the contribution of the credit risk reform to the total impact (by around -0.45 p.p., -0.5 p.p. and -0.4 p.p. respectively). The introduction of the CRR 3 Council's proposal allowing the revaluation of the value of the property pledged as a collateral up to the average value for the last six years, has a limited positive impact to the contribution of the SA reform to the total T1 MRC change (+ 0.1 p.p.). Also the introduction of the CRR 3 European commission's proposal treatment for Regional Governments and Public sector entities (RGLA-PSE) reduces the positive impact to the contribution of the IRB reform (+0.02 p.p.). The introduction of these features interacts with the output floor, causing a limited negative output floor impact (-0.2 p.p.). The overall reduction in the total MRC due to the full set of CRR3 proposals is partially offset by an increase in the Leverage Ratio impact (0.4 p.p.)
22. Results in this section show the impact of the full implementation of the Basel III framework under the EU-specific scenario. This means that the mitigating effect of the output floor transitional arrangements that are part of the EU specific scenario are not included in these results. The estimated temporary mitigating effect of the output floor transitional arrangements is shown in section 2.3 Output floor results under the transitional implementation of this annex.

Table 3: Decomposition of the delta change in total T1 MRC, as a percentage of the overall current Tier 1 MRC, between the Basel III and the EU specific scenario (full implementation of Basel III (2033)) – All banks

Bank group	Scenario	Credit risk				Market risk	CVA	Op Risk	Output floor	Other Pillar 1	Total risk-based	Revised LR	Total
		SA	IRB	Securitisation	CCPs								
	Basel III (ILM = 1)	2.6	1.6	0.0	0.0	1.2	2.4	2.2	6.8	-0.4	16.3	-3.8	12.6
	<i>Delta CRR2 Adjustments; of which:</i>	<i>-0.9</i>	<i>-1.5</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>-1.9</i>	<i>0.0</i>	<i>0.1</i>	<i>0.0</i>	<i>-4.2</i>	<i>1.6</i>	<i>-2.6</i>
	<i>SME SF</i>	<i>-0.9</i>	<i>-1.3</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>					
	<i>INF SF</i>	<i>-0.1</i>	<i>-0.1</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>					
	<i>CVA exemptions</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>-1.9</i>	<i>na</i>					
	Basel III (ILM = 1) + CRR2 Adjustments	1.6	0.2	0.0	0.0	1.2	0.4	2.2	6.9	-0.4	12.1	-2.1	10.0
All banks	<i>Delta CRR3 Adjustments; of which:</i>	<i>-0.4</i>	<i>-0.8</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>-0.2</i>	<i>0.0</i>	<i>-1.4</i>	<i>0.4</i>	<i>-1.0</i>
	<i>Equity</i>	<i>-0.4</i>	<i>-0.1</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>					
	<i>CCFs</i>	<i>-0.1</i>	<i>-0.3</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>					
	<i>REE</i>	<i>0.1</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>					
	<i>SFTs</i>	<i>-0.05</i>	<i>-0.4</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>					
	<i>RGLA/PSE</i>	<i>na</i>	<i>0.02</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>	<i>na</i>					
	EU-Specific (ILM = 1)	1.2	-0.6	0.0	0.0	1.2	0.4	2.2	6.7	-0.4	10.7	-1.7	9.0

Source: EBA QIS data (December 2022), sample 157 banks

2.2 Capital shortfalls

23. Following the methodology of the main report, the introduction of the revised Basel III framework under the EU specific scenario means that two institutions will show a capital shortfall. The aggregate total capital shortfall is EUR 1.08 billion and the CET1 shortfall is EUR 0.24 billion (Table 4). Compared to the results in the main report, the shortfall in total capital decreases by EUR 0.02 billion, of which none comes from CET1. The reduction comes from one bank that appears in shortfall in the Basel III pure scenario but does not show a shortfall in the EU specific scenario as a result of the introduction of the EU specific adjustments. In particular, this bank experienced a decrease in its MRC mainly due to the introduction of the SME supporting factor.

Table 4: Capital shortfalls by bank group under full implementation of Basel III under the EU specific scenario (EUR billion)

Bank group	CET1	Tier 1			Total capital	
		Risk-based	Stand-alone LR-based	Risk-based and LR-based Tier 1	Risk-based	Risk-based total capital and LR-based Tier 1
All banks	0.24	0.59	0.02	0.61	1.06	1.08
Group 1	0.00	0.00	0.00	0.00	0.00	0.00
Of which: G-SIIs	0.00	0.00	0.00	0.00	0.00	0.00
Group 2	0.24	0.59	0.02	0.61	1.06	1.08

Source: EBA QIS data (December 2022), sample 157 banks

2.3 Output floor results under the transitional implementation

24. This section assesses the impact of four separate transitional arrangements over the transitional period from 2025 to 2030¹¹ (Table 5):

- **The calibration of the output floor:** similar to the output floor results shown in the main report under the transitional implementation, the calibration of the output floor will be phased in starting from 50% of the total floored RWA in the first year of the transitional period and progressively increasing every year to reach the 72.5% steady-state level at the end of the transitional period¹².
- **Additional output floor transitional arrangements that go beyond 2030**, the year when the 72.5% recalibration of the output floor is supposed to be applied. These additional transitional arrangements are particular of the EU-specific scenario and lower the non-modellable RWAs which are to be compared with the modellable RWAs to calculate the output floor impact. The inclusion of the following transitional arrangements will therefore lower the impact arising from the output floor on a transitional basis:
 - CRR 3 Proposal on transitional arrangements for unrated corporates
 - CRR 3 Proposal on transitional arrangements for Residential Real Estate exposures
 - CRR 3 Proposal on transitional arrangements for the SACCR Calibration

25. During the phase-in period, the contribution of the output floor to the total MRC impact steadily increases under the EU-specific Basel III scenario:

¹¹ Transitional period as specified in Article 465 of the CRR 3 Proposal

¹² Note that the transitional period shown in this annex is 2025 to 2030 following Article 465 of the CRR3 proposal. The main report shows the transitional period as defined in the pure Basel III framework (2023 to 2028).

- The contribution of the output floor adds less than 0.5 p.p. to the total MRC change for calibration levels below 70% until the end of year four (2028) of the six-year transition period for all banking groups;
- Beyond the 65% calibration level, the contribution of the output floor to the total MRC change increases significantly by the end of year five (2029), reaching +1.1% (1.0% for G-SIIs) when the output floor calibration is at 70%;
- In 2030, when the output floor reaches its steady-state 72.5% calibration, the contribution of the output floor to the EU average MRC is +1.8%. (1.9% for G-SIIs). On that year, the output floor impact is still transitional under the EU-specific scenario as the aforementioned additional transitional arrangements are still applicable. The difference of -4.8 p.p. between the results shown in Table 5 for year 2030 and the results shown in Table 2 illustrate the temporary reduction in the contribution of the output floor to the EU average MRC that is the result of the EU-specific CRR 3 proposals on transitional arrangements. Such reduction is much more significant for Group 1 banks (-5.6 p.p.) and for G-SIIs specifically (-5.8 p.p.) than for Group 2 banks (-1.1 p.p.), given that large banks are more extended users of IRB models and therefore more likely to be impacted by the output floor.

Table 5: Cumulative output floor impact during the implementation phase under the EU Specific scenario (% of the total CRD 5-CRR 2 Tier 1 MRC)

Bank group	2025	2026	2027	2028	2029	2030
	-50%	-55%	-60%	-65%	-70%	-72.50%
All banks	0.0	0.0	0.1	0.2	1.1	1.8
Group 1	0.0	0.0	0.0	0.1	1.1	1.8
Of which: G-SIIs	0.0	0.0	0.0	0.0	1.0	1.9
Group 2	0.1	0.3	0.5	0.7	1.3	1.7

Source: EBA QIS data (December 2022), sample 157 banks

26. Due to the interaction with the leverage ratio, the reduction of the contribution of the output floor to the EU average MRC during the phase-in period does not lead to a one-to-one reduction in the overall EU average MRC. During the phase-in period, the risk-based T1 MRC declines and therefore, the leverage ratio appears as more binding. As shown in Table 6, the temporary reduction in the contribution of the output floor to the EU average MRC between year 2030 and year 2033, as a result of the EU-specific CRR3 proposals on transitional arrangements (- 4.8 p.p), in fact results only in a -0.5 p.p reduction in the overall EU average MRC. The same effect is shown across all banking groups.

Table 6: Comparison of the cumulative output floor, leverage ratio and total T1 MRC impact between year 2033 (fully loaded implementation) and year 2030 (last year of the implementation phase) (% of the total CRD 5-CRR 2 Tier 1 MRC)

Bank group	Implementation year	Output floor	Total risk-based	Revised LR	Total
All banks	2033	6.7	10.7	-1.7	9.0
	Delta	-4.8	-4.8	4.3	-0.5
	2030	1.8	5.9	2.6	8.5
Group 1	2033	7.4	11.5	-1.5	10.0
	Delta	-5.6	-5.6	5.0	-0.5
	2030	1.8	6.0	3.5	9.5
Of which: G-SIIs	2033	7.7	15.1	0.9	16.0
	Delta	-5.8	-5.8	5.8	0.0
	2030	1.9	9.3	6.7	16.0
Group 2	2033	2.9	6.3	-2.6	3.6
	Delta	-1.1	-1.1	0.8	-0.4
	2030	1.7	5.1	-1.9	3.3

Source: EBA QIS data (December 2022), sample 157 banks

2.4 Introduction of EU buffers and Pillar 2 capital requirements

27. This section presents results under the EU-specific scenario when all applicable buffers and P2R requirements are included in the calculation of the minimum required capital. As explained in section 1.2 *Methodology and sample*, following the indication of Article 104a paragraph 6 of the CRD 6 proposal, to avoid arithmetic increases in the MRC calculation that are driven by the output floor impact, the P2R and SRB requirements are here applied as percentages to the pre-floored RWAs only. Also, it should be noted that results in this section follow the static requirements assumption¹³, which means that results do not consider any potential revision or re-calibration of the Pillar 2 and buffer requirements that may follow the increase in RWA under the revised Basel III framework.

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28. T1 MRC changes calculated using all buffers and requirements show, in general, a very small difference in comparison with the T1 MRC changes that are calculated using the G-SIIs surcharge, CCB and Pillar 1 requirements only (shown in Table 3). The rationale behind this small difference is methodological. To calculate the risk-based T1 MRC changes, the delta between the revised T1 MRC risk-based and the current T1 MRC risk-based is calculated applying the same set of buffers to both sides of the equation. The relative increase is then calculated as the ratio between this delta and the maximum of the current T1 MRC risk-based and the current T1 MRC leverage ratio-based. For this reason, the differences arise from the different interaction with the Leverage Ratio, as the latter once again becomes less binding after the introduction of all buffers and P2R requirements in the calculation of the risk-based T1 MRCs. In particular, the Leverage Ratio is not longer binding for G-SIIs following the introduction of P2R and all buffers.

¹³ See section 1.2 iii) Data quality issues and interpretation of the results for further details.

29. All in all, as of December 2022, the implementation of the final Basel III standards under the EU Specific scenario is expected to increase T1 MRC by 9.9% as shown in Table 7. The output floor (+6.2%) remains the key driver, explaining more than half of the total impact, with operational risk (+2.3%) and market risk (+1.1%) following, respectively, as the second and the third most important drivers of the impact. In contrast to the results shown in the main report, the credit risk reforms (+0.5%) and the revised CVA framework (+0.4%) contribute less to the total impact.

30. It should be stressed again, that the results in this section show the impact of the full implementation of the Basel III framework under the EU-specific scenario and do not include the additional mitigating effect of the output floor transitional arrangements that are part of the EU specific scenario.

Table 7: Change in total T1 MRC, as a percentage of the overall current Tier 1 MRC, due to the full implementation of Basel III (2033) under the EU specific scenario (including all buffers and P2R capital requirements) (weighted averages, in %)

Bank group	Credit risk				Market risk	CVA	Op Risk	Output floor	Other Pillar 1	Total risk-based	Revised LR	Total
	SA	IRB	Securitisation	CCPs								
All banks	1.3	-0.8	0.0	0.0	1.1	0.4	2.3	6.2	-0.5	10.1	-0.2	9.9
Group 1	1.2	-1.0	0.0	0.1	1.3	0.4	2.6	6.9	-0.5	11.0	-0.1	10.9
Of which: G-SIIs	1.2	0.6	0.0	0.1	2.2	0.7	3.1	7.1	-0.3	14.7	0.0	14.7
Group 2	1.8	0.2	0.0	0.0	0.5	0.3	0.3	2.5	-0.1	5.7	-0.8	4.9

Source: EBA QIS data (December 2022), sample 157 banks

ii. Capital shortfalls

31. The impact of the introduction of the additional requirements and buffers is more visible in the capital shortfalls, as the MRCs under the revised Basel III framework will become higher. The introduction of the revised Basel III framework under the EU specific scenario when considering all buffers and capital requirements will result in a shortfall in total capital of EUR 6.4 billion, of which EUR 0.3 billion CET1 (Table 8). The capital shortfall is expected to arise mainly from large institutions, with G-SIIs accounting for 75% of the total amount.

32. Specifically, the higher capital shortfall compared to the shortfall that was shown in Table 4 (+5.3bn), originates from 8 banks that report a shortfall when all buffers and capital requirements are included in the calculation and one bank that increases its shortfall.

Table 8: Capital shortfalls by bank group under full implementation of Basel III under the EU specific scenario (including all buffers and P2R capital requirements; EUR billion)

Bank group	CET1	Tier 1			Total capital	
		Risk-based	Stand-alone LR-based	Risk-based and LR-based Tier 1	Risk-based	Risk-based total capital and LR-based Tier 1
All banks	0.3	0.7	0.0	0.7	6.4	6.4
Group 1	0.0	0.0	0.0	0.0	4.9	4.9
Of which: G-SIIs	0.0	0.0	0.0	0.0	4.8	4.8
Group 2	0.3	0.7	0.0	0.7	1.4	1.5

Source: EBA QIS data (December 2022), sample 157 banks

iii. Output floor results under the transitional implementation

33. Following the same rationale as for the cumulative results under the fully loaded implementation, the contribution of the output floor to the total MRC impact during the phase-in period considering all buffers and P2R requirements (Table 9), shows in general a very small difference in comparison with the output floor contribution that is calculated using the G-SIIs surcharge, CCB and Pillar 1 requirements only (shown in Table 5). During the phase-in period, the contribution of the output floor to the total MRC impact steadily increases under the EU-specific Basel III scenario when all buffers are considered. In 2030, when the output floor reaches its steady-state 72.5% calibration, the contribution of the output floor to the EU average MRC is +1.6%. (1.7% for G-SIIs).

Table 9: Cumulative output floor impact during the implementation phase under the EU Specific scenario (including all buffers and P2R capital requirements; EUR billion) (% of the total CRD 5-CRR 2/CRD 5-CRR 2 Tier 1 MRC)

Bank group	2025	2026	2027	2028	2029	2030
	-50%	-55%	-60%	-65%	-70%	-72.50%
All banks	0.0	0.0	0.1	0.2	1.0	1.6
Group 1	0.0	0.0	0.0	0.1	0.9	1.6
Of which: G-SIIs	0.0	0.0	0.0	0.0	0.9	1.7
Group 2	0.1	0.2	0.4	0.6	1.1	1.5

Source: EBA QIS data (December 2022), sample 157 banks

34. Differently from the results calculated using the G-SIIs surcharge, CCB and Pillar 1 requirements only (shown in Table 6), the temporary reduction in the contribution of the output floor to the average MRC between years 2030 and 2033 is much closer to the reduction in the overall EU average MRC. This is, once again, because of the leverage ratio becoming less binding following the introduction of the additional capital buffers and P2R requirements. As shown in Table 10, the temporary reduction in the contribution of the output floor to the EU average MRC between year 2030 and year 2033 as a result of the EU-specific CRR3 proposal on transitional arrangements (– 4.6 p.p for all banks and – 5.4 p.p. for G-SIIs), results in a – 4.4 p.p (– 5.0 p.p for G-SIIs) reduction in the overall EU average MRC.

Table 10: Comparison of the cumulative output floor, leverage ratio and total T1 MRC impact between year 2033 (fully loaded implementation) and year 2030 (last year of the implementation phase), Including all buffers and P2R capital requirements (% of the total CRD 5-CRR 2CRD 5-CRR 2 Tier 1 MRC)

Bank group	Implementation year	Output floor	Total risk-based	Revised LR	Total
All banks	2033	6.2	10.1	-0.2	9.9
	<i>Delta</i>	-4.6	-4.6	0.3	-4.4
	2030	1.6	5.5	0.0	5.6
Group 1	2033	6.9	11.0	-0.1	10.9
	<i>Delta</i>	-5.3	-5.3	0.2	-5.1
	2030	1.6	5.7	0.1	5.8
Of which: G-SIIs	2033	7.1	14.7	0.0	14.7
	<i>Delta</i>	-5.4	-5.4	0.4	-5.0
	2030	1.7	9.4	0.4	9.8
Group 2	2033	2.5	5.7	-0.8	4.9
	<i>Delta</i>	-1.0	-1.0	0.4	-0.6
	2030	1.5	4.7	-0.4	4.3

Source: EBA QIS data (December 2022), sample 157 banks



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