Basel 4 publications

A comparison of the Basel Committee and PRA CP 16/22 Requirements

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February 2023

Basel 3.1 – Overview

The Basel Committee for Banking Supervision (BCBS) published minimum capital requirements for market risk in January 2019. The European Commission published its CRR3 legislative proposal in October 2021 (with the proposal amended in May 2022). CRR3 aims to implement the outstanding components of the Basel capital reforms, often referred to as Basel 4, in the EU. Many of the Basel 3 standards have already been implemented in the UK. The remaining elements, referred to by the PRA as Basel 3.1, were covered in Consultation Paper (CP) 16/22, published on 30 November 2022.

The significant changes and impacts for firms resulting from the PRA consultation are:

Market risk

- Stricter border between trading book and banking book
- Recalibrated version of the existing standardised approach as a simplified standardised approach (SSA)
- Two new calculation methodologies – a new advanced standardised approach (ASA); and a new internal model approach (IMA)
- Implementation date: 1 January 2025
- Capital Impact: higher capital requirements

Credit risk

- SA more granular and risk sensitive
- Changes to the foundation internal ratings based (FIRB) approach and the advanced internal ratings based (AIRB) approach
- Reduced complexity of approaches and improved comparability across firms
- Implementation date: 1 January 2025
- Capital Impact: higher capital requirements

Operational risk

- Withdrawal of IMA process
- Single Standardised Measurement Approach (SMA)
- Implementation date: 1 January 2025
- Capital Impact: higher capital requirements, mainly where banks have higher historical capital loses and due to the move away from AMA

CVA

- Removal of IMA for CVA capital requirement calculation
- Introduction of three new methodologies for calculating CVA capital requirements: the alternative approach (AA-CVA), the basic approach (BA-CVA), and the standardised approach (SA-CVA)
- Implementation date: 1 January 2025
- Capital Impact: higher capital requirements

Output floor

- Floor to limit the use of IMA to decrease capital requirement for market risk
- Calibrated to 72.5% of RWA’s under SA approach
- Implementation date: 1 January 2025
- Capital Impact: higher capital requirements, with significant impact from 2025 onwards

Basel 3.1 – Market Risk

The implementation timeline for the market risk elements of CP 16/22, together with key proposals relating to the SA and IMA, is shown below:

Timeline for Market Risk

- New date for binding capital requirements is 1 January 2025.
- Firms to submit final pre-application materials for new IMA and ASA permissions at least 12 months before the proposed implementation date of 1 January 2025. Any submissions after this date may require the firm to use the SA at least for an initial period, pending the completion of the PRA's model review.
- The PRA's proposed implementation date for the changes resulting from CP 16/22 would be 1 January 2025, with transitional arrangements.

Highlights of the PRA CP for Standardised Approach:

- Modification of the Gross JTD computation to use market value instead of notional and P&L, as used by BCBS, to improve the clarity and consistency of the DRC calculation.
- Creation of a new sub-bucket 3b for separate treatment of exposures to carbon emissions trading schemes.
- For the treatment of CIUs: the PRA introduces an additional measure, for funds that cannot be looked through to calculate risk weight for own funds requirement, using third party. This fourth External Party Approach (EPA) is not mentioned by BCBS.
- Prescriptive treatment of Non-Trading book positions subject to Foreign exchange risk or commodity risk explained in Article 325a1.

Highlights of the PRA CP for Internal Model Approach:

- Application process and permission where firms can use IMA is defined, and firms need to submit final pre-application materials for new IMA permissions at least 12 months before the proposed implementation date of 1 January 2025.
- Additional detail on the calculation of capital requirements for non-modellable risk factors (NMRFs) and requirements for recognition of NMRFs in back-testing. The PRA states that where a bank uses a stress scenario measure for the calculation of one or more NMRF that relates to that data input, they can include the changes in those NMRF in the theoretical changes in the portfolio value for PLA requirements.
- Simplified modelling approaches for positions in CIUs, subject to tests to ensure they are appropriately conservative.
- Clarification of the treatment of Non-Trading book positions subject to Foreign exchange risk or commodity risk explained in Article 325a1.

BCBS & PRA CP 16/22 rule change analysis

KPMG professionals have performed a detailed comparison of FRTB IMA and SA regulations to provide a) a line by line comparison of the requirements, b) an assessment of the impact of those changes across functions, c) complete traceability of regulations to business and functional requirements.

The BCBS requirements were used as a basis of comparison against PRA CP 16/22 proposal. We have used the BCBS hierarchy as the global base for comparison. Figure 1.1 and 1.2 reflect the comparison between BCBS and PRA regulations.

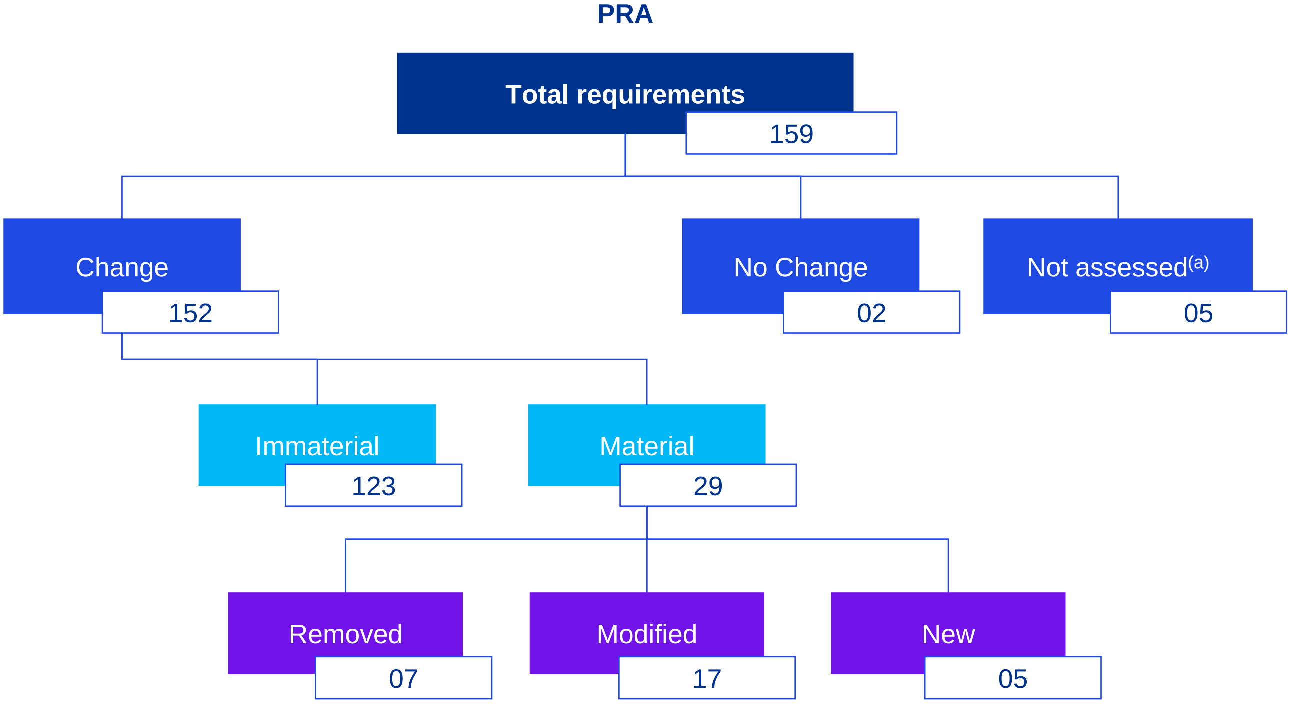
Please refer to subsequent pages for a summary of changes, and reach out to your local KPMG firm contacts for a detailed view of the broad-ranging analysis performed.

The categorisation of each FRTB requirement is summarised below:

- **Change** –if the requirement has remained the same across BCBS and PRA it is flagged as "N“. If not, is it flagged as "Y“.
- **Not assessed** – the rules in this category have a dependency on further PRA publications. No further assessment can be made until the additional information is made available.
- **Materiality** – for each requirement that has changed, we have assessed the impact of the change and summarised whether it was a material change or not. If material, this is flagged as "Y“.
  - **Immaterial change** – the change is predominately driven due to a wording change or a reference change.
  - **Material change** – the change is driven by a requirement that has been removed, modified or added.

Breakdown of the rules for IMA based on the categorisation highlighted above:

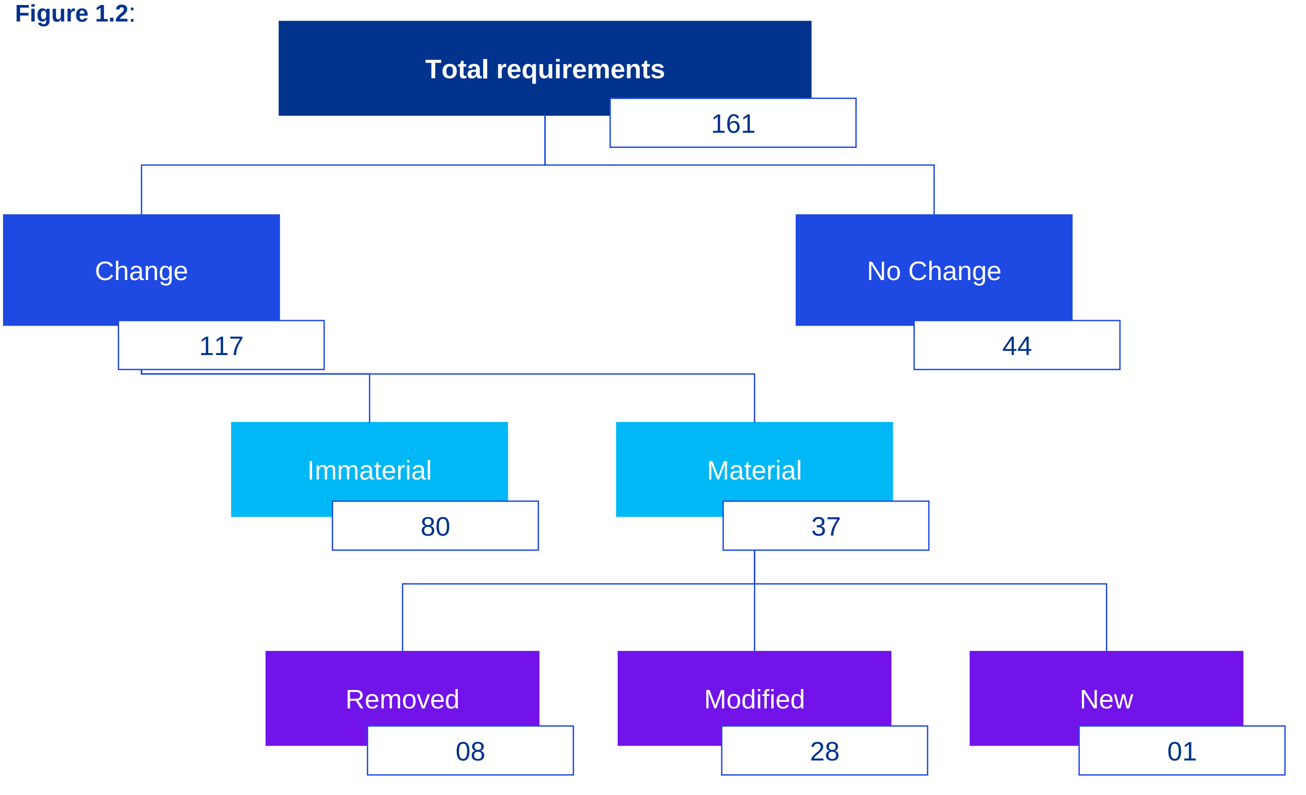
Figure 1.1:



BCBS & PRA CP 16/22 rule change analysis

Breakdown of the rules for SA based on the categorisation highlighted above:

Figure 1.2:



PRA Notes:(a) The rules in this category have a dependency on further publication by PRA - therefore no assessment is made until the additional regulation is published.

Source: KPMG International, 2023.

BCBS & PRA key requirement differences

Standardised Approach

Article	Topic	Material change	Analysis
325j	**Treatment of Collective Investment Undertakings (CIUs)**	PRA introduces additional measure for funds that cannot be looked through, to calculate risk weight for own funds requirement, using third party. This approach is not mentioned by BCBS.	PRA considers that this External Party Approach(EPA) is more risk sensitive and less operationally burdensome.
325aa	**Calculation of the own funds requirements for the Default Risk**	The assignment of a risk exposure to investment grade or non-investment grade and unrated shall be based on an external credit assessment by a nominated ECAI (External Credit assessment Institutions) of the corresponding issuer. This part is not introduced by BCBS.	PRA introduces external credit assessment which will provide more transparency.
325w	**Gross Jump to Default (JTD) Amounts**	The Gross JTD computation in CP 16/22 has been modified compared to BCBS. It uses market value instead of notional and P&L as given in BCBS.	PRA considers that its proposed calculation of ‘gross jump-to-default’ improves the clarity and consistency of the DRC calculation.
325a1	**Treatment of banking book positions subject to FX or Commodity Risk**	PRA introduces a prescriptive treatment of Non-Trading book positions subject to Foreign exchange risk or commodity risk explained	PRA clearly defines and provides more clarity on the treatment of non-trading book positions subject to foreign exchange risk or commodity risk.
325as	**Risk weights for commodity risk**	PRA created a separate sub-bucket 3b for separate treatment of exposures to carbon emissions trading schemes	Exposures to carbon emission trading will be treated separately, reflecting their importance.
325e	**Components of Sensitivity Based Method (SBM)**	PRA states that permission is required to subject all instruments without optionality to vega and curvature risks and permission must be taken to cease this approach as well. BCBS does not explicitly comment on permissions, but it mentions that the approach must be consistent through time. It only mentions inclusion of curvature risk.	PRA is more prudent compared to BCBS, but this may be operationally burdensome.
325q	**Foreign Exchange risk factors**	PRA specifies that the base currency shall be used for trading and banking book. BCBS does not refer to this.	PRA is more specific compared to BCBS in terms of the reporting currency .
325ay	**Vega and Curvature Risks correlations**	BCBS provides details regarding the calculation of correlations for high/low scenarios for curvature for the CSR NS and CSR CTP risk classes.	BCBS provides more clarity and details compared to PRA.
325ad	**Calculation of the own funds requirements for the Default Risk of the (CTP)**	PRA considers a floor equal to 0 in the aggregation at bucket level. BCBS does not have a floor of 0.	PRA is more conservative in this regard as it does not allow netting within buckets.

BCBS & PRA key requirement differences

Internal Models Approach

Article	Topic	Material change	Analysis
325az	**Permission to use internal models**	PRA proposes that, under extraordinary circumstances, authorities may permit a bank to continue using IMA for a trading desk that no longer meets the conditions.	PRA may be less restrictive than BCBS. This will be an advantage for some banks which are using IMA approach.
325azx	**Material changes and extensions to permission**	PRA guidelines specify in detail the permission and criteria for changes to/extension of the internal models - provided in Annex 2 of the PRA guidelines.	PRA provides more clarity and flexibility for banks compared to BCBS guidelines.
325bf	**Regulatory back-testing requirements and multiplication factors**	PRA requires banks to meet backtesting requirements at trading desk level. BCBS requires banks to meet backtesting requirements at trading desk level *and* bank-wide level.	Banks will be subject to a larger backtesting exercise at a bank-wide level under BCBS.
325be	**Assessment of the modellability of risk factors**	PRA proposal specifies the criteria where prices should not be considered verifiable. BCBS does not mention these criteria.	PRA criteria for verifiable price selection give more accuracy and precision to the internal model. The verifiable prices used will be more accurate than under BCBS.
325a1	**Treatment of banking book positions subject to FX or Commodity Risk**	Prescriptive treatment of non-trading book positions subject to foreign exchange risk or commodity risk explained	PRA clearly defines and provides more clarity on the treatment of non-trading book positions subject to foreign exchange risk or commodity risk.
325bg	**Profit and loss attribution requirements**	BCBS and PRA are aligned in their classification of the trading desk into green and red zones based on evaluation of PLA test metrics. However, BCBS standards have only 3 colour zone classifications whereas PRA proposes 4.	PRA breaks down the amber zone of BCBS into two zones, orange and yellow. By providing an additional colour zone, PRA has created additional criterion for deciding the use of IMA approach.
325bk	**Calculation of stress scenario risk measure**	PRA precisely defines the methodology that should be used for deriving the stress scenario.	PRA's greater prescriptiveness may create new implementation requirements for banks.
325bh	**Principles for the modellability of risk factors that pass the RFET**	PRA does not specifically mention the requirement of the risk factor to pass the modellability test if it is derived from a combination of modellable risk factors. However, PRA does propose that any risk factor used for the ES model should be a modellable risk factor.	PRA states that where a bank uses a stress scenario measure for the calculation of one or more NMRF that relates to that data input, they can include the changes in those NMRF in the theoretical changes in the portfolio value for PLA requirements. BCBS standards do not mention the same.
325bf	**Regulatory back-testing requirements and multiplication factors**	PRA does not reference the role of the supervisory authority role in as much detail as BCBS.	BCBS is more conservative - supervisory authority to monitor regularly the back-testing and PLA results.

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