



# Basel 4 publications

A comparison of the Basel Committee and European Commission requirements

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August 2022



The European Commission published its CRR3 legislative proposal in October 2021 and later an amendment of proposal in May 2022 which aim to implement the outstanding components of the Basel capital reforms (Basel 4) in the EU. Simultaneously, the EBA published draft technical standards (RTS) on 22 October 2021 on two crucial elements of the Fundamental Review of the Trading Book (FRTB) Standardised Approach (SA), which EU banks required to complete implementation of the SA.

**Below, is an overview of the significant changes and impacts for firms in these publications:**



### Market risk

- Stricter boarder between trading book and banking book
- More risk sensitive SA
- Revised IMA
- Implementation date: 1 January 2025
- Capital Impact: higher capital requirements



### Credit risk

- SA more granular and risk sensitive
- Removed option to use advance IRB for institutions and large corporates and IRB approach for equity
- Implementation date: 1 January 2023
- Capital Impact: higher capital requirements



### Operational risk

- Withdrawal of IMA process
- Single standardised measurement approach
- Implementation date: 1 January 2023
- Capital Impact: higher capital requirements, majorly for banks having higher historical capital losses and moving from AMA



### CVA

- New basic approach and new approach for SA risk in derivatives and securities finance transitions
- Enhanced risk sensitivities, improve robustness and greater consistency with MR framework
- Implementation date: 1 January 2023
- Capital Impact: higher capital requirements



### Leverage ratio

- Revised exposure definition
- G-SIB leverage ratio buffer
- Implementation date: 1 January 2023
- Capital Impact: lower capital requirements



### Output floor

- Floor to limit use of IMA to decrease capital requirement for market and credit risk
- Calibrated to 72.5% of RWA's under SA approach
- Implementation date: phased in between 1 January 2023 to 1 January 2028
- Capital Impact: higher capital requirements, with huge impact from 2025 onwards



# RTS on gross – Jump-To-Default (JTD)

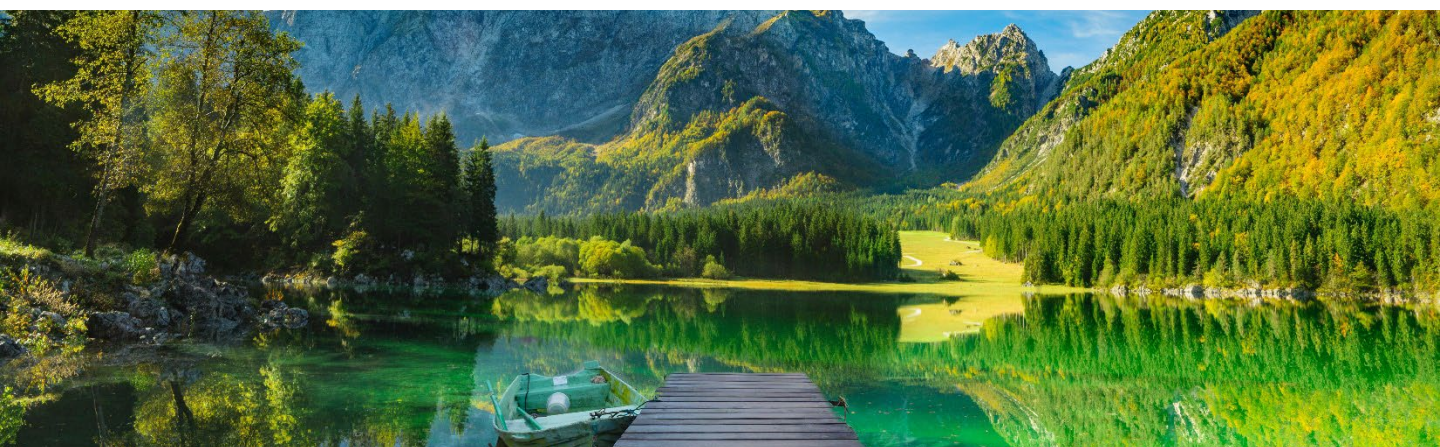


- To align Article 325w with the Basel standards, the components P&L long, P&L short, Adjustment long, and Adjustment short have been reformulated.
- Definition of gross JTD amount reconciles Basel and CRR definitions.
- The concept of notional is redefined as 'bond-equivalent market value', i.e. the market value at time of calculation minus the defaulted value or full loss in value.
- The request from industry to treat indices as a single instrument under DRC requirements is not in scope of the EBA mandate.

# RTS on Residual – Risk Add-On (RRAO)



- Longevity risk, weather, natural disasters and future realised volatility are considered to meet the definition of exotic risks.
- Options subject to behavioural risk should fall under the scope of the RRAO only where:
  - a. The option lies with a retail client
  - b. A significant amount of these instruments with prepayment risk is held in the trading book
  - c. The behavioural risk for those instruments is considered material
- Conditions b) and c) in the above are not included in the Basel standards.
- The EBA has provided a non-exhaustive list of instruments bearing residual risks - digital options, Asian options, Bermudan options and CMS spread options remain as instruments subject to residual risks.
- No clarity is given as to whether long and short positions with the same underlying risk can be netted.



## Timeline



- New date for binding capital requirements is 1 January 2025.
- At the moment, there is still a lack of clarity on whether the expected reporting date for IMA is in 2024, one year prior to binding requirements. Overlapping RTS and entry into force of CRR3 may hinder IMA applications.

## Delegated Act



- CRR3 empowers the European Commission to adopt delegated acts to amend the own funds requirements for market risk and to amend the date of entry into application to align them with international developments.
- The Commission can also introduce a multiplier between 0 and 1 to align with capital requirements of other jurisdictions.

## Trading book and banking book boundary



- The CRR3 text contains product specific lists for trading book and banking book.
- Subject to approval, instruments designated as trading book can be reclassified to the banking book.
- CRR 3 allows institutions to create dedicated trading desks to house non-trading book positions subject to FX and commodity risk.
- It also allows institutions to exclude some positions from FX risk capital requirements when hedging FX risks.
- The EBA will develop RTS for calculating and monitoring net short credit or equity positions in the non-trading book. These will be published within 24 months of entry into force of CRR3.

## Analysis



- In alignment with the Basel standards, Banking Book and Trading book instruments are more explicitly defined than under CRR2 – this includes embedded options which will require bifurcation.
- There is more flexibility to assign instruments to the banking book where there is no trading intent.

# CRR2 & CRR3 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 regulations, b) an assessment of the impact of those changes across functions and operating model components, c) complete traceability of regulations to business and functional requirements and d) monitoring progress and compliance against the regulations.

The BCBS requirements were used as a basis of comparison. Our assessment included mapping each BCBS requirement to the respective requirements applicable to EU firms (i.e. CRR2 & CRR3 & RTS). We have used the BCBS hierarchy as the global base for comparison. Figure 1.1 and 1.2 reflect the comparison between BCBS and CRR2 regulations and Figure 2.1 and 2.2 is a comparison between CRR2 and CRR3 regulation updates.

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

## Summarized below is the requirement:

- **Change** – If the requirement has remained the same between the both regulations then it is flagged as "N" else "Y"
- **Not assessed** – The rules in this category have a dependency on the publication of an RTS - therefore no assessment is made until the additional regulation is published
- **Materiality** – For each requirement that has changed, we have assessed the impact of the change and summarised if it was a material change or not. If material, then 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

## The breakdown of the rules for IMA based on the categorisation highlighted above:

Figure 1.1:

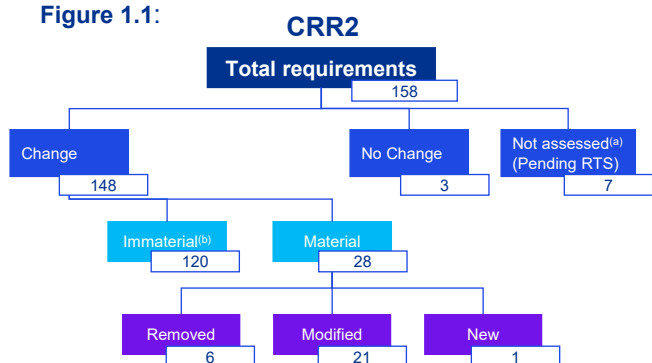
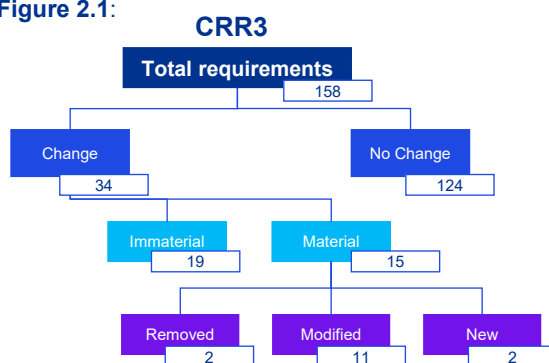


Figure 2.1:



## The breakdown of the rules for SA based on the categorisation highlighted above:

Figure 1.2:

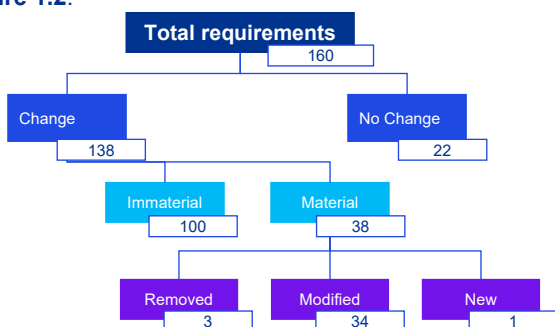
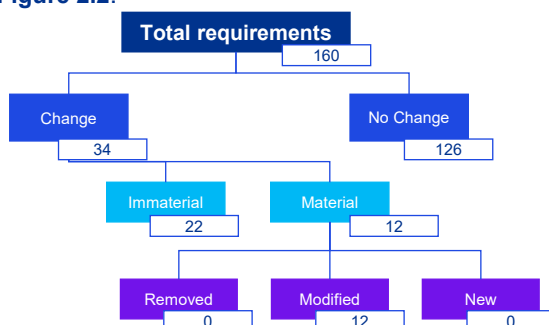


Figure 2.2:



CRR2 Notes: (a) The rules in this category have a dependency on the publication of an RTS or CRR3 - therefore no assessment is made until the additional regulation is published.  
 (b) 33.45 is flagged as immaterial pending publication of the CRR3, which is expected to confirm this status.

Source: KPMG International, 2022.

# CRR2 & CRR3 key requirement differences



## Standardised Approach

Article	Topic	Material change	Analysis
106	Internal Risk Transfer	Clarifies the existing provisions on internal risk transfers.	Regulator still expects the institution to perfectly offset the market risk externally, which may not always be feasible.
325j	Collective Investment Undertaking (CIUs)	Reduces calculation complexity by allowing institutions apply the look-through approach with a monthly frequency, and under specific conditions, to use data provided by relevant third-parties in the calculation. Under the mandate-based approach, Article 325j introduces a mandate for the EBA to further specify the technical elements for using the hypothetical portfolio.	Allows firms to use third party data (third party defined as 'depository institution of the CIU' or 'CIU management company'), which may include fund sensitivities.
325q	FX Vega	Clarifies the treatment of foreign exchange vega risk factors as implied volatilities of currency pairs.	CRR3 aligned with Basel.
325s	Vega Risk	Vega sensitivity definition formula used for FRTB calculations now more clear - applies a volatility weighted vega.	Improved definition: allows multiplication by the implied volatility.
325t	RTPL	Aligns the sensitivities used for the calculation of capital requirements with those used for the risk management of the institution.	CRR2 required sensitivities to be produced by the pricing model, whereas CRR3 allows risk-management models; this now aligns with Basel.
325ea	GIRR	Scaling factor for liquid currencies by $\sqrt{2}$ applies to all GIRR risk factors, including inflation and cross currency basis.	CRR3 aligned with Basel.
325ai 325aj	Correlation Parameter	Intra-bucket correlation parameter amended for credit spread non-sec sensitivities with different names to be equal to 80% if sensitivities do not fall into buckets 1 to 18.	CRR3 aligned with Basel.
325ah 325ak	Unrated Covered Bond	A risk exposure of an unrated covered bond may be assigned to bucket 4 where the institution that issues the covered bond has a credit quality step 1 to 3.	CRR2 adopted a different classification for covered bond. CRR3 further clarified the bucket assignment treatment.
325as	Carbon Trading	Lower risk weight for the commodity delta risk factor related to carbon trading emissions.	Distinct risk category to better reflect the price volatility of this commodity.

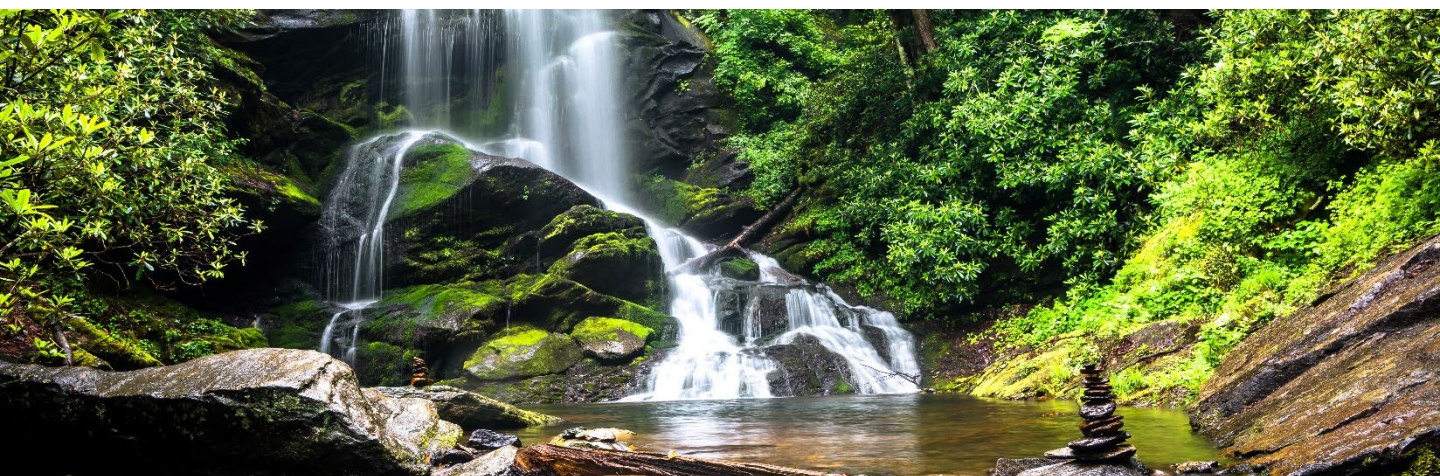


# CRR2 & CRR3 key requirement differences



## Internal Models Approach

Article	Topic	Material change	Analysis
325bc	Data inputs	EBA mandate to specify the criteria for the use of data inputs in the risk-measurement model.	EBA RTS within 9 months of entry into force.
325be 325bf	Modellability & Backtesting	New powers for authorities to address deficiencies in backtesting and modellability. Under extraordinary circumstances, regulators may allow institutions to temporarily consider some NMRFs as modellable. EBA RTS to specify the conditions according to which an institution may be allowed not to count a backtesting breach attributable to an NMRF. Competent authorities may increase the value of mc above the sum when institution's A-IMA shows deficiencies to appropriately measures the own funds requirements.	Firms may use data from third party vendors for modellability, but additional scrutiny from regulators may apply. Flexibility for NMRFs to be considered modellable, but only where it does not significantly reduce total capital. Backtesting exceptions due to NMRFs may only apply to Group level.
325bg	P&L Attribution Test (PLAT)	CRR3 incorporates the capital surcharge (add-on) in PLAT as a binding requirement, and mandates the EBA to provide the surcharge calculation.	EBA RTS within 9 months of entry into force.
325bh	Collective Investment Undertaking (CIUs)	Introduction of adjustments for calculating the own fund requirements for market risk for CIUs positions; Allows look-through on a weekly basis. Permits the use of data provided by third party only if certain criteria are met.	Regulation is not explicit enough on whether risk sensitivities from third parties may be allowed.
325bi	Validation	Separate validation unit from the risk control unit shall conduct the initial and ongoing validation of any internal risk-measurement model.	The validation of IMA models will be performed by a validation unit rather than a risk control unit. The validation frequency is expected to be the same as in the Basel rules, which is annual.



# EU Parliament proposed changes as of June, 2022

There are proposed changes by EU parliament though KPMG professionals did not identify any material changes which could impact the market risk capital.

Article	Topic	Change
104	Trading book definition	<ul style="list-style-type: none"> <li>• CIU's with trading intent are to be allocated to the banking book if they have "banking book instruments" as underlying.</li> <li>• For embedded options and other embedded derivatives now only apply to own issues and no longer to all banking book instruments.</li> </ul>
325c	Frequency of review (SA)	<ul style="list-style-type: none"> <li>• Easing of the frequency of the adequacy reviews for the FRTB standard approach. Whereas in the Commission's draft this was still to be carried out annually and only less frequently in exceptional cases approved by the supervisory authority, once in a two-year standard frequency is now specified. However, the supervisory authority can shorten this to one year. The outcome of the review must be presented to supervisory/ appropriate management bodies.</li> </ul>
325ax	Curvature risk (SA)	<ul style="list-style-type: none"> <li>• For general interest rate, credit spread and commodity curvature risk factors, the curvature risk weight shall be the parallel shift of all the vertices for each curve on the basis of the highest prescribed delta risk weight of the bucket (previously: highest delta risk weight of the entire risk class).</li> <li>• This leads to lower and more consistent curvature risk weights for the aforementioned risk classes with a possibly somewhat more complex, since more differentiated, IT implementation.</li> </ul>
325bh	CIU's	<ul style="list-style-type: none"> <li>• CIUs, institutions shall look through the underlying positions of the CIUs at least on a weekly basis to calculate their own funds requirements if an institution looks through less regularly than daily, it shall identify, measure and monitor any risk occurring from its less than daily look through and avoid any significant risk underestimation;</li> </ul>
361	Market Price Risk: Simplified Standardised Approach Methodology	<ul style="list-style-type: none"> <li>• The Commission's CRR III draft allows banks to use the extended maturity ladder approach for commodity position risks without planning an Internal Model (IMA) in the future. In this respect, the parliamentary version clarifies that this choice is still subject to notification.</li> </ul>





# Contacts



**Rob Smith**  
Partner  
FRM Banking Risk  
KPMG in the UK

[robert.smith@kpmg.co.uk](mailto:robert.smith@kpmg.co.uk)



**Jalpa Dodhia**  
Senior Manager  
FRM Banking Risk  
KPMG in the UK

[jalpa.dodhia@kpmg.co.uk](mailto:jalpa.dodhia@kpmg.co.uk)



**Daniel Rodriguez**  
Manager  
FRM Banking Risk  
KPMG in the UK

[daniel.rodriguez@kpmg.co.uk](mailto:daniel.rodriguez@kpmg.co.uk)



**Christine Wong**  
Manager  
FRM Banking Risk  
KPMG in the UK

[hoiye.wong@kpmg.co.uk](mailto:hoiye.wong@kpmg.co.uk)



**Richa Baheti**  
Assistant Manager  
FRM Banking Risk  
KPMG in the UK

[richa.baheti@kpmg.co.uk](mailto:richa.baheti@kpmg.co.uk)



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