KPMG

BASEL IV Credit Risk Internal Ratings-Based (IRB) Approach

Implementation in Hong Kong

January 2021

The Basel Committee on Banking Supervision (BCBS) finalized the new Credit Risk – IRB framework in December 2017 as part of the final Basel III package. The implementation deadline was set as January 2022 but deferred by 1 year to January 2023 due to COVID-19. The HKMA has released its consultation in November 2020 to adopt the new IRB framework by 1 January 2023. Overall the HKMA intends to closely align with the Basel framework.

1. Key facts about the new IRB framework

Restrictions on the IRB approach

For difficult to model or low default portfolios (LDP):

- the Advanced-IRB approach is no longer allowed for exposures to banks and other financial institutions, or for corporates belonging to a group with total consolidated annual revenues greater than HKD 5,000 million (note that Foundation-IRB is still allowed for these exposures);
- Further, no IRB approach is allowed for equity exposures (except equity investments in funds).

Risk parameter floors

- introduction of PD, LGD, EAD and CCF floors for corporate and retail exposures. For corporate exposures the minimum PD (floor) has increased from 0.03 percent to 0.05 percent, and LGD floors set for different collateral types. Similarly new PD and LGD floors are in place for retail exposures (for QRRE revolvers the PD floor is increased to 0.1 percent).

RWA calculation and data

- removal of the 1.06 scaling factor used in the calculation of Risk Weighted Assets for credit risk exposures;
- enhancement of estimation and data requirements.

2. Specific exposures

Residential mortgages – Recognizing the significance of banks' property exposures to the Hong Kong banking sector and to better align with the HKMA's long-standing prudential standards for banks' property exposures, the HKMA also intends to maintain the LGD floor applicable to RMLs under the IRB approach at the current level of 10% (as opposed to the more relaxed 5% under the Basel III final reform package).

Sovereign exposures – retains the main features of Basel II (such as the option to apply the advanced IRB approach and absence of existing and new input floors) but applies the other IRB changes introduced under the Basel III final reform package (e.g. the removal of the 1.06 IRB scaling factor, enhancements in estimation practices and data requirements) on the assumption that such changes are not substantive for this asset class.

Equity exposures (equity investment in funds only) – The availability of the IRB approach will depend on whether the bank has the MA's approval to use the IRB approach to calculate the RWA of the underlying exposures of the funds.

3. Timeline

Banks are required to inform the HKMA, by **31 March 2021** on (i) the number and types of existing IRB models that may require significant changes; (ii) new IRB models to be developed; (iii) other implementation-related applications envisaged by the banks; and (iv) the expect timeline for submitting the above applications for the MA's prior approval / consent where required under the BCR.

3. Impacts of the Revised Standardised Approach:

Capital: the changes, in particular the restriction on the IRB approach and the introduction of parameter floors, will have a direct impact on Pillar 1 capital requirements. It is expected, on average, that the new framework will increase banks' credit risk capital requirements. The extent of impacts will vary by bank depending on their portfolio mix (e.g. how much exposures are hit by IRB restrictions and the floors).

Product offering and pricing: The relative attractiveness of different credit products will shift based on the associated cost of capital. It is unlikely that the Basel IV IRB changes by themselves would lead to a reduction in lending, as such portfolio decisions are influenced by a wider dynamic of profitability, costs and market positioning. Some banks may look to reprice risk and gradually rebalance their portfolio composition, particularly since the increased sensitivity of risk weights under the new Standardised Approach would have impacts for both Standardised Approach banks as well as those using IRB.

Control and governance: the revised calculation of Pillar 1 capital requirements for credit risk will require appropriate control procedures and governance, for example to ensure floors are applied at the correct level. In particular, the controls around data and systems will be critical to ensure a successful implementation of Basel IV. Other elements of governance included as part of the minimum requirements for using the IRB approach are largely unchanged from current requirements

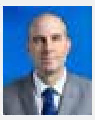
Data and systems: the changes to credit risk approaches (both Standardised and IRB) will require further changes to data capture and systems. For example, under the new Standardised Approach, banks will have to ensure that they can calculate a LTV based on origination valuation and outstanding balance, which may be different from how they currently calculate it. Banks using the IRB approach will need to ensure that they can calculate risk weights using the Standardised Approach as part of calculating the output floor.

How KPMG can help?

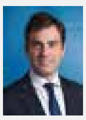
It is important for banks to start understanding what the new Basel requirements mean in terms of risk exposure calculations, processes, data and systems. KPMG experts can assist you in the following areas:

- Assessing the implications of the interplay between the restrictions on the use of the IRB approach, the output floor and the revised Standardised Approach, and to assess corresponding business decisions. This can also be extended to cover the combined impact across risk types (credit, market and operational);
- Deciphering the quantitative impact of Basel IV. KPMG has developed Basel IV toolkits for quantitative impact studies and implementation support. These toolkits are well tested and can offer quick wins in this Basel IV journey;
- Undertaking a gap analysis assessment to understand what is changing and to use this information as an input to identifying the required data, systems and processes, and the implications of this for longer term planning and budgeting decisions. Any new data items that need to be captured may initiate larger scale changes or programs around IT architecture in order to deliver clearer data lineage and quality;

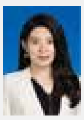
Contact us



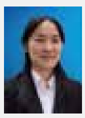
Tom Jenkins
Partner,
Head of Financial Risk Management
KPMG China
T: +852 2143 8570
E: tom.jenkins@kpmg.com



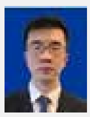
Michael Monteforte
Partner,
Financial Risk Management
KPMG China
T: +852 2847 5012
E: michael.monteforte@kpmg.com



Gemini Yang
Partner,
Financial Risk Management
KPMG China
T: +852 3927 5731
E: gemini.yang@kpmg.com



Yi-Hsin Wang
Director,
Financial Risk Management
KPMG China
T: +852 2685 7422
E: yihsin.wang@kpmg.com



Mo Liang
Associate Director, Financial Risk Management
KPMG China
T: +852 3927 3108
E: mo.liang@kpmg.com

kpmg.com/cn