Office of the Superintendent of Financial Institutions Canada
Bureau du surintendant des institutions financières Canada

Discussion Paper

Implementation of the final Basel III reforms in Canada

Office of the Superintendent of Financial Institutions (OSFI)

July 2018

OSFI BSIF
255 Albert Street
Ottawa, Canada
K1A 0H2

www.osfi-bsif.gc.ca

Canada

I. Introduction

(i) Basel III Reforms

As a member of the Basel Committee on Banking Supervision (BCBS), OSFI participated in the development of the Basel III framework. The Basel III reforms have been introduced through a series of regulatory changes in recent years, designed to address weaknesses in banks' resiliency that were revealed during the financial crisis. Previous changes were designed to address the quantity and quality of bank capital and liquidity. The final set of Basel III reforms ("final Basel III reforms") published in December 2017[1] seek to enhance credibility in the calculation of risk-weighted assets (RWAs) and improve the comparability and transparency of banks' capital ratios. This includes revisions to the standardized approach (SA) and internal ratings based (IRB) approach to credit risk, the operational risk framework, the leverage ratio (LR) framework and the credit valuation adjustment (CVA) requirements. In addition, the final Basel III reforms replace the existing Basel I capital floor with a more risk-sensitive floor (referred to as an output floor). These revisions are described in more detail in section II below.

(ii) Scope of the Discussion Paper

This discussion paper sets out OSFI's proposed policy direction and timelines for implementing the final Basel III reforms in Canada. OSFI is seeking views on these proposed policy directions and timelines from interested stakeholders. Comments are invited on all sections of this discussion paper and a list of specific questions is included in section V.

The discussion below on the implementation of the Basel III reforms into the domestic capital framework applies to all deposit-taking institutions (DTIs). However, OSFI will propose future changes to the domestic capital framework to ensure requirements are reflective of the risks faced by institutions that do not use internal models for regulatory capital purposes. Industry feedback on these changes will be sought through a separate consultation process.

(iii) Guiding Principles for the Domestic Implementation of the Final Basel III Reforms

OSFI supports the changes proposed in the final Basel III reforms and intends to implement them domestically, while also making adjustments to reflect the Canadian market. Consistent with our current approach to developing domestic guidance, OSFI's implementation of the final Basel III reforms will be guided by the following key principles:

1. The final Basel III reforms will be used as a starting point, although modifications may be made to take into account the unique characteristics of the Canadian market;
2. Changes to the domestic capital framework should help improve the risk sensitivity of the capital rules and provide the right incentive structures to DTIs;

[1] https://www.bis.org/bcbs/publ/d424.htm

3. The revisions to the domestic capital framework should aim to promote the safety and soundness of DTIs while taking into consideration level playing field and competitiveness issues.

The rest of the paper is organized as follows: section II provides a high-level summary of the final Basel III reforms; sections III and IV provide OSFI's preliminary views regarding the scope and timing of the implementation of the reforms in Canada; section V includes questions for stakeholders and section VI provides an overview of the next steps.

II. Summary of the Final Basel III reforms

The following provides a summary of the key changes outlined in the final Basel III reforms.

(i) Credit Risk Framework

The following changes were made to the credit risk framework in order to improve risk sensitivity and address shortcomings in the SA and IRB approaches:

- Enhancing the risk sensitivity of the SA by increasing the granularity of risk weights, in particular for real estate exposures, and reducing mechanistic reliance on credit ratings by requiring banks to perform their own due diligence on exposures that are externally rated; and
- Constraining the use of the IRB approach by reducing the number of asset classes for which banks can use the IRB approach, and imposing supervisory constraints on certain parameters.

(ii) Operational Risk Framework

The operational risk framework was streamlined in order to ensure sufficiency of operational risk capital and address the challenges associated with using internal models for operational risk through the following changes:

- A single risk sensitive standardized approach that will replace the advanced measurement approach (AMA) and the existing standardized approaches
- The calculation of operational risk capital requirements based on two components: (i) a measure of a bank's income; and (ii) a measure of a bank's historical losses.

(iii) Leverage Ratio (LR) Framework

The final Basel III reforms included the following changes to the LR framework:

- The introduction of a LR buffer for global systemically important banks (G-SIBs); and
- Refinements to the exposure definitions in the LR, including changes to the treatment of derivatives and off-balance sheet exposures.

(iv) Credit Valuation Adjustment (CVA) Framework

The following revisions to the CVA framework were included in order to enhance its risk sensitivity and increase its robustness and comparability:

- Incorporating the exposure component of CVA risk along with corresponding hedges, into the CVA capital charge; and
- Removing the advanced approach and aligning the standardized approach with the revised market risk framework under the Fundamental Review of the Trading Book (FRTB).

(v) Output Floor

The existing Basel I floor is being replaced with an output floor based on the revised SA. The output floor ensures that model-based RWAs do not fall below a minimum level. Changes introduced in the final Basel III reforms include:

- Basing the output floor calculation on the revised Basel III standardized approaches instead of the Basel I framework;
- Lowering the floor level from 80% to 72.5% of total RWA using the standardized approaches.

III. Preliminary OSFI Views on the Domestic Scope of Implementation

The starting point for the implementation of the final Basel III reforms is the rules text published by the BCBS in December 2017. OSFI proposes to make some modifications to the final Basel III reforms for implementation in Canada. Below is a summary of the proposed changes to the domestic capital framework.

(i) Credit Risk Framework

(a) *Loss Given Default Floor for Residential Mortgages:* The final Basel III reforms introduce a reduction in the loss given default (LGD) floor for residential mortgages from 10% to 5%. OSFI proposes to the keep the current 10% LGD floor for residential mortgages, given that a floor of 5% would not be in line with current estimates in Canada given that LGDs must be calibrated to a downturn period. This would be consistent with our objective to promote the safety and soundness of DTIs.

(b) *Combining the Retail Small Business Entity (SBE) and Corporate Small and Medium size Entities (SME) categories:* Under the final Basel III reforms, retail SBE exposures secured by residential or commercial property are treated the same as any other exposures secured by property. When this change comes into effect, we anticipate there will be limited exposures remaining in the retail SBE category and that the remaining exposures will have a risk profile more similar to the Corporate SME category. OSFI therefore proposes to apply the Corporate SME risk weights under the SA and IRB approach to both the remaining retail SBE exposures and Corporate SME exposures. We do not expect this change to have a material impact on capital requirements and it removes unnecessary complexity from the capital framework.

(c) *Residential Mortgages under IRB Approach*: OSFI proposes to create a separate risk weight function under the IRB approach for residential mortgages that are materially dependent on cash flows generated by the property. The new risk weight function would be identical to the current one used for residential mortgages, except with an increased correlation factor. OSFI will preform further analysis to determine the correlation factor for this new risk weight function. The reason behind this potential change is twofold: (i) it would align with the asset classes under the revised SA, which has separate risk weights for residential real estate exposures that are not materially dependent on cash flows generated by the property and those that are; and (ii) it would increase the risk sensitivity of the IRB approach.

(d) *Changes related to Credit Card Exposures:* Although the revised SA increases the risk sensitivity for credit card exposures by incorporating a separate risk weight for transactor credit card customers, OSFI is exploring the possibility of making further changes to both the SA and IRB related to credit card exposures to increase the risk sensitivity in the following areas:

- Lowering the calibration of the SA risk weight for transactors and raising the risk weight for non-transactors;
- Increasing the calibration of the credit conversion factors for unconditionally cancellable commitments in the SA; and
- Raising the PD floor for non-transactors under the IRB approach.

In each of these areas, we believe that the BCBS calibration is potentially not properly aligned with the risks of the credit card market in Canada.

(ii) *Operational Risk Framework*

Under the final Basel III reforms, the operational risk capital requirement is based on the Business Indicator Component (BIC), a financial-statement based proxy for operational risk, and the institution's Internal Loss Multiplier (ILM), a scaling factor based on the average historical losses over the preceding 10 years.

National supervisors have the discretion to exclude internal loss data in the capital calculation and instead set the operational risk capital requirement equal to the BIC (i.e., ILM is set to one). In this regard, OSFI is proposing to keep historical losses in the calculation of the operational risk capital charge (i.e., allowing larger Bucket 2 and Bucket 3 banks to compute ILM according to the Basel III standards.) In addition, OSFI is considering permitting the use of historical losses in the operational risk calculation for smaller Bucket 1 banks (those with less than CAD $1.25 billion of business income[2]) if they can meet the loss data collection requirements specified under the Basel III framework. OSFI is also proposing to

[2] Consistent with the current CAR Guideline, thresholds in the Basel III framework will be converted into Canadian dollar amounts at an exchange rate of 1.25.

require the calculation of capital requirements at a group level (similar to requirements for credit and market risk).

Consistent with the final Basel III reforms, OSFI is proposing to set the minimum threshold for including loss events in the data collection and calculation of average annual losses at CAD $25,000[3]. OSFI will undertake further analysis to determine the governance process for considering loss exclusions, including how to evaluate the relevance of operational loss events to the institution's operations. OSFI understands that some of the associated processes and tools used to support the models-based AMA may continue to have relevance under the new standardized approach. As such, OSFI will consider the extent to which tools associated with the AMA model can continue to be used, or modified going forward, as part of an institution's operational risk management.

(iii) *Leverage Ratio (LR) Framework*

The final Basel III reforms include revisions to the original LR framework, which was released in January 2014[4]. The revisions include a new LR buffer for G-SIBs, as well as technical refinements to the LR exposure measure.

The LR buffer for G-SIBs is intended to ensure that the leverage ratio continues to act as an appropriate backstop to the risk-based requirements for G-SIBs. The LR buffer for G-SIBs must be met with Tier 1 capital and is set at 50% of a G-SIBs risk-based capital buffer[5]. In addition to the LR buffer, the technical refinements to the exposure measure under the LR include modifications to the treatment of on balance sheet exposures, securities financing transaction exposures and off-balance sheet items. OSFI's current approach is to treat Canadian domestic systemically important banks (D-SIBs) as first bucket G-SIBs and apply the G-SIB requirements to our D-SIBs. In keeping with this principle, OSFI is proposing to apply a G-SIB LR buffer of 50 bps to the Canadian D-SIBs.

We will consider the domestic application of the proposed technical refinements to the LR framework and will engage with stakeholders on these issues during our regular consultation process for revisions to the LR framework prior to implementation in Q1 2022.

(iv) *CVA Risk Framework*

OSFI intends to implement the changes to the CVA risk framework as proposed in the final Basel III reforms. We have not yet considered whether any areas in the CVA framework require specific modifications for the Canadian context.

---

[3] Ibid.

[4] *Basel III leverage ratio framework and disclosure requirements (January 2014)*

[5] For example, a bank with a 2% risk-based buffer will have a 1% leverage ratio buffer and so will be expected to maintain a leverage ratio of at least 4%.

IV. Preliminary OSFI Views on the Domestic Implementation Timelines

As a member of the BCBS, OSFI is committed to timely and consistent implementation of the final Basel III reforms, and intends to implement the Basel III reforms according to the international agreed upon timeline, with three exceptions. These exceptions are related to:

- Changes to the operational risk framework;
- Modifications to the LR framework in order to incorporate the Standardized Approach to Counterparty Credit Risk (SACCR); and
- The transition period for the output floor.

The BCBS has set an effective date of January 1, 2022 for the Basel III reforms, with a 5-year transition for the output floor. Given the substantial amount of revisions to the capital framework targeted for implementation in 2022, we are considering staggering the implementation of certain standards over a period of time from an operational standpoint. This would reduce the overall burden of implementation for both financial institutions and OSFI in 2022.

With respect to the revised operational risk framework, we are targeting a domestic implementation date of November 1, 2020 (for October year-end institutions) and January 1, 2021 (for December year-end institutions). We believe that the early adoption of the operational risk framework should not pose implementation challenges given that institutions would not be required to build sophisticated models and could leverage off existing systems for measuring operational risk. To meet this implementation date, OSFI is targeting publication of the final updates to the *Capital Adequacy Requirements* (CAR) Guideline to reflect the operational risk rules in the spring of 2020. Prior to the publication of the final rules, we will follow our regular consultation process on the changes to the relevant sections of the CAR Guideline.

With respect to the LR framework, OSFI intends to incorporate the SACCR in the *Leverage Requirements* Guideline in 2019 in order to coincide with the implementation of the SACCR in the risk-based capital ratio under the CAR Guideline. This is being done as we see benefits in aligning the implementation of the SACCR for both the risk-based capital and leverage ratios.

With respect to the revised output floor, the BCBS proposes a phase-in, starting at 50% of the Standardized RWA on January 1, 2022 and increasing each year to 72.5% in 2027. In addition, the final Basel III reforms allows for a further discretionary cap on a bank's total RWA increase during the phase-in period. OSFI proposes to implement the output floor at a level of 72.5% starting in the first quarter of 2022. We do not believe that the transition period on the output floor is needed in Canada. In addition, OSFI is not proposing to apply the discretionary cap on the increase in a bank's total RWA during the phase-in period.

The table below provides OSFI's expected implementation dates for the Basel III reforms as well as other BCBS standards that OSFI expects to implement in the coming years.

BCBS Standard	Expected Implementation Date
Standardised approach for measuring counterparty credit risk (in both the risk based capital and leverage requirements)	Q1 2019
Rules for capitalising exposures to central counterparties	Q1 2019
Revisions to the securitisation framework	Q1 2019
Net Stable Funding Ratio	Q1 2020
Basel III reforms to operational risk	Q1 2021
Basel III reforms to credit risk (incl. output floor)	Q1 2022
Basel III reforms to the leverage ratio	Q1 2022*
Basel III reforms to credit valuation adjustments	Q1 2022
Fundamental review of the trading book	Q1 2022

* Except SACCR which will be implemented in Q1 2019

V. Questions for Stakeholders

OSFI is seeking views from interested stakeholders on the policy direction and timelines proposed above. In addition, we request that interested stakeholders provided responses to the questions below.

Q1. Are there other areas of the framework OSFI should consider for domestic modifications?

Q2. What are your views on the areas OSFI has highlighted for possible domestic modifications?

Q3. What are your views on the identification, collection and governance of loss data under the new standardized approach to operational risk?

Q4. Which tools or processes under the existing approaches to measuring operational risk capital should be retained?

VI. Next Steps

Responses to the above questions and comments on the discussion paper are requested by **October 19, 2018** and should be sent to Patrick Tobin, Capital Specialist, Capital Division at patrick.tobin@osfi-bsif.gc.ca.