Making Banks Safer: Implementing Basel III

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- Although the internationally agreed phase-in of the Basel III framework for bank regulation is still in the early stages, the quantity and quality of bank capital have already increased substantially.
- Enhanced implementation monitoring is critical to building credibility in the updated Basel framework and, ultimately, to ensuring its effectiveness.
- It is imperative to reduce the variability in estimates of risk-weighted assets across banks internationally through a combination of improved modelling guidance by the Basel Committee and, to foster market discipline and avoid misperceptions, enhanced transparency by banks.
- Implementation monitoring must be complemented by assessments of the contributions of Basel III to financial system stability, including careful consideration of any unforeseen adverse effects.

Introduction

Evidence from the recent financial crisis, most notably from the experience of countries such as Canada that did not experience bank failures, clearly indicates that a resilient banking sector is a necessary condition for achieving sustained economic growth. It is therefore essential that Basel III, the strengthened framework of international standards for bank capital adequacy and liquidity developed by the Basel Committee on Banking Supervision (BCBS) and endorsed by the G-20 Leaders, is implemented fully and in a timely manner.

While it is widely agreed that more stringent capital and liquidity standards will make the financial system safer, concerns have been raised about the pace and consistency of Basel III implementation. These concerns pertain to both the resulting regulatory burden on banks and the scope for regulatory arbitrage. This report explores issues associated with the implementation of Basel III in Canada and in other major jurisdictions. It begins with an overview of Basel III and then summarizes the evidence showing that, as currently calibrated, the benefits of the updated framework substantially outweigh its costs. It goes on to review the steps taken to implement Basel III and examine how the banking system is already safer, even though implementation is far from complete. The report concludes with an overview of the peer-review program introduced to support the consistent implementation of the Basel III standards in all jurisdictions. Although the jurisdictions assessed to date have been judged to have domestic rules that are broadly compliant with the Basel III standards, analysis conducted by the Basel Committee suggests that banks are not calculating risk-weighted assets consistently.

Basel III: An Overview

Basel III is a fundamental component of the G-20's financial reform agenda (**Table 1**). It raises the bar relative to the prudential framework that was in effect before the global financial crisis in several important ways. In particular, by placing common equity at the core of the capital requirements and imposing standards to ensure that the other types of capital instruments allowed are truly loss absorbing, Basel III greatly enhances the quality of capital. It also introduces many innovative safeguards that were not previously part of supervisors' tool kits. These include:

- a capital conservation buffer that promotes corrective actions through restrictions on dividend and bonus payments when a bank's common equity Tier 1 capital ratio deteriorates;
- a countercyclical buffer that, at the discretion of the relevant authorities, requires banks to hold more capital in good times to prepare for downturns in the economy, thereby adding a macroprudential element to the framework;

Table 1: Overview of key G-20 financial reforms

Objective	Basel III	Other reforms
Building more resilient financial institutions	▪ Minimum capital requirements ▪ Liquidity standards ▪ Leverage ratio	▪ Minimum capital requirements (insurance)
Ending "too big to fail"	▪ Identification of systemically important banks (global and domestic) ▪ Capital surcharges	▪ Identification of systemically important financial institutions other than banks (global only) ▪ Key Attributes for Effective Resolution Regimes ▪ Higher loss absorbency ▪ More intense and more effective supervision
Addressing systemic risks from shadow banking		▪ Bank interactions with shadow banking entities ▪ Securities lending and repos ▪ Money market funds ▪ Securitization
Making over-the-counter derivatives markets safer		▪ Enhanced margin and capital requirements for non-centrally-cleared trades ▪ Trade repositories ▪ Exchange trading of standardized contracts

Source: Bank of Canada

- capital surcharges of 1 per cent to 3.5 per cent of risk-weighted assets for global systemically important banks, which vary according to the banks' degree of importance and are intended to take into account the externalities that their failure would impose on the economy;
- a set of principles for the identification of domestic systemically important banks by national authorities that include requirements for enhanced loss absorbency;
- a minimum leverage ratio that complements capital requirements by protecting against risks that may not be adequately reflected in risk weightings;[1] and
- the first international standards for bank liquidity and funding, designed to promote the resilience of a bank's liquidity-risk profile to both short-term liquidity shocks (the Liquidity Coverage Ratio) and excessive maturity mismatches in funding (the Net Stable Funding Ratio).

The agreed transition period for Basel III (which extends to the end of 2018) allows banks in the jurisdictions most affected by the crisis ample time to rebuild capital buffers. Moreover, the Basel rules are international minimums rather than a "one-size-fits-all" approach. Jurisdictions can adopt more stringent standards or bring their own regulations into line with the new standards more quickly. For example, since the failure of a major bank would have disproportionately greater consequences for jurisdictions with very large banking sectors relative to their domestic economies, more stringent requirements may be prudent. What ultimately matters is that all of the jurisdictions raise the bar for capital and liquidity sufficiently. The Basel Committee's Regulatory Consistency Assessment Programme is designed to promote full adherence through peer reviews.

Anticipated Net Benefits

Basel III represents an important adjustment for the global banking industry, with implications for borrowers and national economies more broadly. While higher capital and liquidity standards are designed to contribute significantly to financial stability, there will be costs involved, since equity is a more expensive form of financing than debt, and liquid assets typically yield lower returns. Nonetheless, when considering the costs associated with implementing Basel III, it is essential to keep in mind the enormous negative impact of financial crises: empirical evidence suggests that the median cumulative loss of past financial crises was 63 per cent of national GDP (BCBS 2010).

Quantitative estimates of the expected benefits of Basel III from a rigorous impact assessment conducted by the BCBS and the Financial Stability Board (FSB) are very high, even under conservative assumptions that likely underestimated such benefits (FSB-BCBS 2010). The most salient benefits identified are that financial crises would occur less frequently and would be less severe if they did occur. It is also probable that the macroeconomic cycle will be less prone to booms and busts.

Analysis conducted at the Bank of Canada (2010) supports the finding that the potential gains are large, even for countries that already have a sound financial system.

1 In January 2014, the Basel Committee agreed to continue monitoring the implementation of the 3 per cent leverage ratio on a semi-annual basis. The final calibration, and any further adjustments to the definition, will be completed by 2017, with a view to migrating to a Pillar I (minimum capital requirement) treatment on 1 January 2018.

In a highly interconnected world where financial problems in one region rapidly spill over into others, reducing the incidence of foreign crises is just as important as pursuing domestic goals.

There are potential economic costs as well, both during the initial transition period and in the longer term, when the new standards are fully in place. For example, banks may seek to pass on the costs associated with higher capital and liquidity requirements through lower deposit rates or higher lending rates or service fees.[2] Concerns have also been raised about the possible impact of Basel III on financial market functioning.

Despite these possible costs, the studies all found a significant net benefit from safer and more resilient banking systems. Netting the long-run benefits for G-20 economies of less frequent financial crises with the associated costs results in average net benefits of 30 per cent of GDP (or about €10 trillion) in present-value terms (FSB-BCBS 2010). For Canada, the net gain from a modest increase in the capital ratio was conservatively estimated at 13 per cent of GDP in the 2010 study. A strengthened domestic financial system means that Canada will be more resilient in the face of adverse contagion effects from abroad.

Further monitoring will be needed as the adjustment to Basel III becomes more advanced to ensure that the framework's net benefits are indeed positive and to look for adverse unintended consequences that would need to be addressed.

Implementing Basel III

All of the G-20 economies have prepared the necessary rules (in legislation or through other appropriate means, such as guidelines) to implement the updated Basel framework by the agreed deadline, if not sooner (BCBS 2014b). For example, both the European Union and the United States issued final Basel capital regulations in June and July 2013, respectively. Recall that, although implementation began last year, the BCBS agreed to phase in the new requirements over a six-year period ending in December 2018. In addition, while the new risk-based capital requirements have been completed, other components of Basel III, such as the Net Stable Funding Ratio (NSFR) liquidity metric, are not yet finalized.

In some instances, the country requirements and timelines exceed the international minimums, reflecting the strength of the domestic banking system and the importance of maintaining financial stability. In Canada, the Office of the Superintendent of Financial Institutions (OSFI) has moved forward with the implementation of the finalized components of Basel III, bringing domestic rules into line with the new international standards.[3] The capital requirements were fully implemented at the beginning of 2013, without recourse to the available transition period. An exception is the capital charge on the credit valuation adjustment (CVA) for derivatives where, given the global nature of the market, implementation began in January 2014 and is being phased in over five years.[4]

No Canadian bank has been identified as globally systemically important (G-SIB) by the Basel Committee and the FSB.[5] However, in line with principles established by the BCBS, OSFI has designated Canada's six largest banks as domestic SIBs (D-SIBs).[6] As a result, these banks are subject to closer supervision and are expected to adopt enhanced disclosure standards. As well, they will face an additional 1 per cent risk-weighted common equity Tier 1 capital requirement at the beginning of 2016. Enhanced disclosure requires D-SIBs to generally adhere to global best practices, including adopting the recommendations of the Enhanced Disclosure Task Force.[7]

In May 2014, OSFI published the final version of its Liquidity Adequacy Requirements (LAR) Guideline. The Liquidity Coverage Ratio (LCR) will be fully implemented in 2015, with the requirement set at 100 per cent (and thus not using the transition period).[8] The NSFR, which is still under development, will be implemented in line with the Basel schedule (likely in 2018).[9] Finally, intraday liquidity metrics, which provide a useful additional monitoring mechanism (though not a requirement or standard), will be implemented according to a similar schedule.

2 These effects would likely be mitigated, however, by the reduction in banks' financing costs, which would tend to occur as the banking system becomes less risky.

3 Canadian banks were expected to fully meet the common equity capital requirements at the beginning of the 2013–18 internationally agreed phase-in period. The updated Capital Adequacy Requirements (CAR) Guideline can be found on the OSFI website at http://www.osfi-bsif.gc.ca/Eng/fi-if/rg-ro/gdn-ort/gl-ld/Pages/car_index.aspx.

4 The CVA is an adjustment made to the value of a derivative to reflect the credit risk of the counterparty. The capital charge on the CVA is designed to protect against deterioration in the counterparty's creditworthiness. OSFI's announcement of this capital charge can be found at http://www.osfi-bsif.gc.ca/eng/docs/cva_let.pdf.

5 The FSB publishes an updated list of G-SIBs annually. The most recent list was issued in November 2013 (see http://www.financialstabilityboard.org/publications/r_131111.pdf).

6 These are Bank of Montreal, The Bank of Nova Scotia, Canadian Imperial Bank of Commerce, National Bank, Royal Bank of Canada and The Toronto-Dominion Bank. In June 2013, Quebec's Autorité des marchés financiers designated the Desjardins Group as a D-SIB, and in February 2014, the B.C. Financial Institutions Commission similarly designated the Central 1 Credit Union as a systemically important financial institution.

7 The most recent report by the private sector task force is available at http://www.financialstabilityboard.org/publications/r_130821a.htm.

8 The Basel III transition phase for the LCR sets a requirement of 60 per cent in 2015, rising to 100 per cent on 1 January 2019. Information on the LAR is available at http://www.osfi-bsif.gc.ca/Eng/fi-if/rg-ro/gdn-ort/gl-ld/Pages/LAR_gias.aspx.

9 An existing liquidity metric used by OSFI, the Net Cumulative Cash Flow (NCCF), will be maintained. The NCCF focuses on a different time horizon and is designed to identify gaps between contractual inflows and outflows for various time periods, up to 12 months.

OSFI has also indicated that its existing leverage requirement, the assets to capital multiple, which has been in place since the 1980s, will be replaced by the Basel III leverage ratio. A new leverage guideline will be published later this year, with public disclosure beginning in early 2015. OSFI has noted that it will continue to apply more stringent leverage requirements on an institution-by-institution basis, as necessary.[10]

While these components represent the core of Basel III, other aspects of the international bank capital requirements remain under study for possible improvement (for example, strengthened requirements for bank exposures related to securitizations, as well as exposures in the trading book, are currently being discussed). These elements will be implemented, as appropriate, once international agreement has been reached and the details finalized.

Early Evidence of More Resilient Financial Institutions

It is clear from the Basel Committee's monitoring that global banks are adjusting to higher standards. Using a broad sample of large, internationally active banks (approximately 100 "Group 1" banks), the average common equity Tier 1 Basel III capital ratio has risen steadily over the past several years (**Chart 1**).[11] By mid-2013, it had reached 9.5 per cent, well above the required minimum. Only five banks in this group (none of them Canadian) had not yet met the global standard of 7 per cent capital (plus the G-SIB capital buffer, where appropriate). With respect to liquidity, the weighted average LCR was 114 per cent of the required level. Again, there is considerable variation across individual banks, but the BCBS (2014a) notes that 72 per cent of the banks in its sample met or exceeded the LCR minimum requirement of 100 per cent. Finally, the leverage ratio (defined as Tier 1 capital divided by total assets, using Basel III definitions) was 4.3 per cent on an aggregate basis, well above the tentative required minimum of 3 per cent.[12]

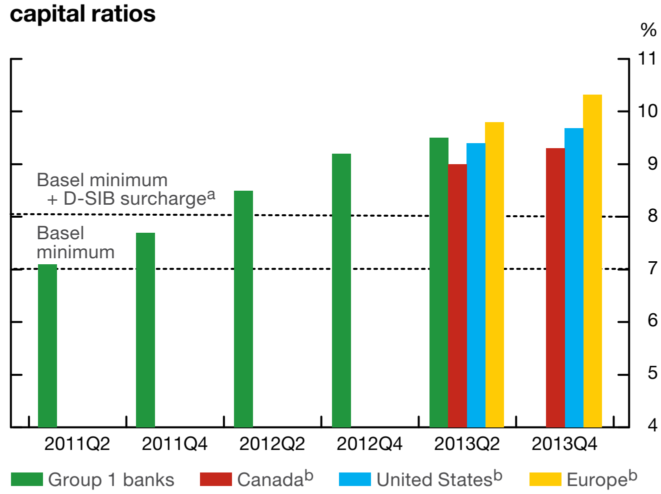
In early 2013, all of the Canadian D-SIBs exceeded the minimum common equity capital requirement (including the 1 per cent D-SIB surcharge), and capital levels have continued to rise since then. By the end of 2013, capital stood at a weighted average of 9.3 per cent, with a range of 8.7 per cent to 9.9 per cent across banks.

10 The Canadian approach to the new leverage and liquidity requirements is discussed further in Zelmer (2014).

11 These data are from BCBS (2014a) and assume full implementation without using transition arrangements. Note that the BCBS reports data only on an aggregate basis, based on confidential submissions from individual banks. The most recent data are for 2013Q2.

12 Although banks will be required to publish their leverage ratios beginning in 2015, they will not have to meet a required minimum until 2018. The final calibration of the leverage ratio will be determined before full implementation.

Chart 1: Basel III fully phased-in common equity Tier 1 capital ratios



a. D-SIB surcharge for Canadian banks
b. Data for selected large banks (available as of 2013)
Sources: Bank for International Settlements, regulatory filings of Canadian banks and Bloomberg
Last observation: 2013Q4

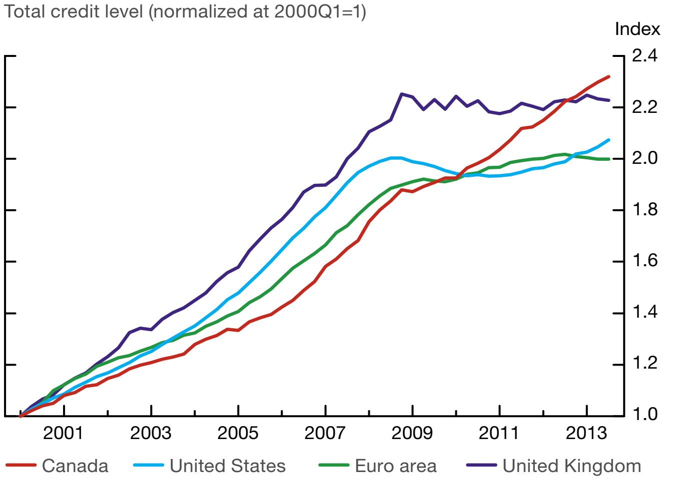
Similar data are not yet publicly available for the Basel III liquidity metrics and the leverage ratios of the major banks. Nevertheless, domestic banks are well aware of the forthcoming requirements and are taking steps to ensure that their business and funding operations are consistent with them.

Banks have a range of options available for increasing their capital ratios, including earnings retention, capital issuance and asset reduction through deleveraging. It is important to recall that some deleveraging may be essential so that banks can correct past business errors and rationalize business lines to re-establish sustainable business models. Nevertheless, an overreliance on deleveraging could have adverse effects on lending and on economic activity. Analysis by the BIS (Cohen and Scatigna 2014) suggests that much of the recorded improvement in the advanced economies in fact came from internally generated capital (supported in some instances by reduced dividend payouts). Bank assets have expanded in aggregate over the post-crisis period, although to a lesser degree in Europe, given the severe economic and financial stress experienced there beginning in 2011. Other evidence (Bridges et al. 2014) suggests that while credit growth may be somewhat reduced during a period of significant capital increases, this effect is temporary and loan growth subsequently recovers.

In Canada, total credit continued to expand in the post-crisis period, even as banks built up their capital levels (**Chart 2**). This is in contrast to the levelling off in credit experienced in the United States and much of Europe, which coped with significant disruptions in their banking sectors. It remains difficult to ascertain to what extent

Chart 2: Evolution of credit to the private non-financial sector

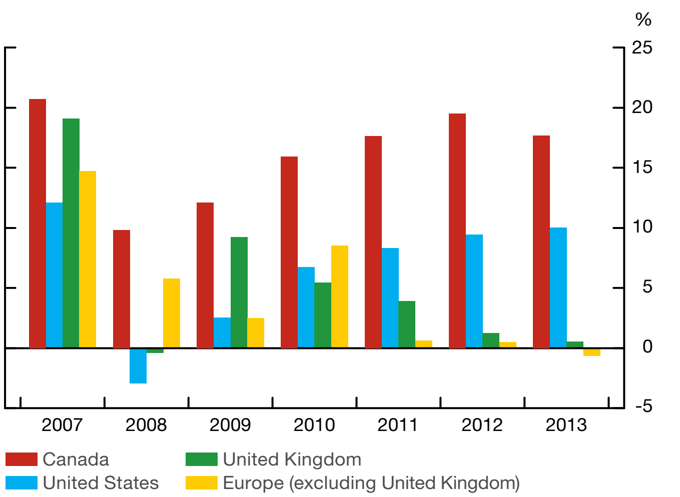
Total credit level (normalized at 2000Q1=1)



Source: Bank for International Settlements

Last observation: 2013Q3

Chart 3: Average return on equity for sample banks in each area



Source: Bloomberg

Last observation: 2013

the weak growth in lending reflects the broader macroeconomic challenges these countries have faced, which has subsequently constrained loan demand.

The Canadian banking system has performed comparatively well since the financial crisis, with sustained strong profit levels (**Chart 3**).[13] Benefiting from their resilience to the crisis, Canadian banks have been able to fund themselves at attractive rates, both domestically and in foreign markets such as the United States. This has facilitated the process of improving their capital ratios based on the tougher standards. They are also adjusting to the prospective implementation of the new liquidity requirements by changing funding plans and re-examining the liquidity needs of their various business lines.

13 See Arjani and Paulin (2013) for a discussion of the factors that contributed to the strong performance of the Canadian banking system during and after the financial crisis.

Fostering a Race to the Top: Rigorous, Independent Monitoring

The Basel Committee's Regulatory Consistency Assessment Programme identifies shortcomings in national rule making to implement Basel III. The publication of these findings and the FSB's regular updates to the G-20 provide incentives for national authorities to address any identified gaps.

To date, the BCBS has conducted detailed assessments of the final requirements adopted by six jurisdictions: Australia, Brazil, China, Japan, Singapore and Switzerland. All have been judged as overall "compliant" with the Basel minimum standards. These jurisdictions have been willing to swiftly rectify many of the deviations identified during the assessment process. BCBS assessments of the requirements for Canada, the United States and the European Union will be completed over the course of 2014.

Beyond looking at how local regulators have translated Basel agreements into domestic regulations, the Basel Committee has also begun to examine whether the framework is producing consistent outcomes. Ultimately, the capital ratios reported by individual banks should provide a meaningful representation of their capital strength. Recent international evidence shows that banks are not calculating risk-weighted assets consistently (BCBS 2013a; 2013c). The key findings from the Committee's examination for both the banking and the trading books are:

- There is a material variation in risk weights for trading assets across banks (after adjusting for accounting differences and differences in the riskiness of bank portfolios).
- Certain modelling choices seem to be the main drivers of the variation in risk weights.
- The quality of existing public disclosure is generally insufficient to allow users to determine how much of the variation in reported risk weights is a reflection of underlying risk taking, and how much stems from other factors (e.g., modelling choices or supervisory discretion).

Note that the objective is not to achieve zero variation: modelling necessarily introduces variability. From a financial stability perspective, it is also desirable to maintain some diversity in risk-management practices to avoid the herd behaviour and market disruptions that may result if banks acted homogeneously. However, excessive variation in risk measurement that undermines confidence in the framework or raises the prospect of manipulation is clearly not desirable.

To date, consistency assessments suggest that the right balance has yet to be attained. The Basel Committee has not decided what actions it might take in response to the analysis, but some possible policy options could include improvements in public disclosure practices and more limitations on the modelling choices for banks. The Committee's study also provides national supervisors with a clearer understanding of how their banks' risk models compare with those of their international peers. National supervisors are therefore much better equipped to discuss the results with their banks and take action where needed.[14]

The Committee's work on risk weightings also relates to a broader concern that the Basel III framework has grown too complex in its pursuit of risk sensitivity. Some stakeholders have argued that more weight should be placed on the leverage ratio, whose calculation is not burdened by the need to estimate risk weights. However, it is dangerous to assume that banks engaging in complicated trading strategies and products across global markets can be supervised using simple rules, since the financial system itself is complex and the risk-management practices of banks are increasingly sophisticated. While the Basel Committee believes that a risk-based capital regime should remain at the core of the regulatory framework for banks, it recognizes that the pursuit of increased risk sensitivity has considerably increased the complexity of the capital-adequacy framework and views the simplification of the Basel capital standards, where possible, as an important part of its agenda (BCBS 2013b).

14 The perspective of OSFI on the variation in risk weights, including their implications and potential mitigants, can be found in Zelmer (2013).

Conclusion

Early evidence that the Canadian and international banking systems have already made good progress in implementing Basel III—particularly by augmenting the quantity and quality of capital—is excellent news. As this process continues, it is imperative to continuously assess the impact of the reforms on financial stability and their macroeconomic implications more broadly. Additional analysis and rigorous monitoring are essential, in part to identify any unexpected adverse consequences should they occur.

It is also critical that the minimum standards be rigorously respected across all jurisdictions to achieve the full benefits of the reforms and to maintain a level playing field. This is why the Basel Committee's enhanced efforts with respect to monitoring are so important. It is essential that, in future impact analyses and consistency assessments, authorities continue to improve prudential standards for the banking sector by supporting greater consistency in risk weights and by addressing the implementation gaps that have been identified.

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