



Workshop 1: Evaluating the impact of post-crisis reforms

Chair: Mike Gibson (Director Supervision & Regulation, Board of Governors of the Federal Reserve System)

Most of the Committee's post-crisis reforms were finalised in December 2017.¹ A few are still in the process of being finalised, such as the revised market risk framework. Even before the agreement on the final Basel III framework, the Committee agreed in March 2017 to further evaluate its post-crisis reforms.

Similarly, the Financial Stability Board (FSB) published its framework for evaluating the effects of the G20 financial regulatory reforms in July 2017, in close collaboration with standard-setting bodies such as the Basel Committee. The framework aims to guide analyses of whether these reforms are achieving their intended outcomes, and help to identify any material unintended consequences that may have to be addressed, without compromising on the objectives of the reforms.² The G20 Leaders expressed their support to "analyse the effects of financial regulatory reforms".³

In the meantime, the Committee has further developed its evaluation work programme. In some cases, evaluations have already commenced. For most evaluations, however, the Committee's working groups are currently developing work plans, and often these evaluations will be multi-year projects during and after the implementation phase of the final Basel III framework. This note outlines some of the issues regarding the Committee's evaluation work that will be discussed in this workshop.

The Committee's framework for evaluating post-crisis reforms

The Committee's work programme covers three types of evaluation:

- First, the Committee will assess whether *individual reforms*, or a subset of reforms, have achieved their intended objectives. For example, to what extent has a specific reform delivered its intended outcome of, say, enhancing risk sensitivity? Assuming that the Basel III reforms are properly implemented, will they reduce excessive risk-weighted asset variability and restore the credibility of the risk-weighted capital framework?
- Second, the Committee will evaluate the *interaction and coherence across different reforms*. For example, are different measures mutually reinforcing or conflicting? Do different measures treat similar risks in a similar manner?

¹ See BCBS (2017a).

² See FSB (2017), p 1.

³ G20 Leaders' Declaration, *Shaping an interconnected world*, 7–8 July 2017, www.g20.org/profiles/g20/modules/custom/g20_beverly/img/timeline/Germany/G20-leaders-declaration.pdf.

- Third, the Committee will assess the *broader impact of its reforms* (and other post-crisis reforms), in aggregate or for a subset of reforms. For example, are there any structural impacts arising from the Committee’s reforms? To what extent are these impacts desirable or undesirable?

The explicit purpose of evaluations is not to re-open previous policy decisions. Rather, evaluations will focus on analysing the effects of the reforms in question. They will be approached agnostically with regard to the final outcome. Based on the outcome of the evaluations, the Committee will then consider whether any changes to the current regulatory framework are warranted, provided that these are supported by robust empirical evidence on associated social benefits and costs. Similarly, the FSB (2017, pp 1–2) stresses that “[e]valuations, if findings warrant it, could provide a basis for possible fine-tuning of post-crisis regulatory reforms, without implying a scaling back of those reforms or undermining members’ commitment to implement them.”

Evaluations will generally be conducted by the relevant working group of the Committee. However, for the analysis of the interaction and coherence of reforms and the assessment of their broader impact, several working groups will contribute jointly with the support of the Committee’s Research Task Force.

Some evaluations will be more qualitative in nature and include literature reviews, qualitative surveys, case studies or workshops with external stakeholders. For many evaluations, however, quantitative analyses will be an important input. The ongoing half-yearly Basel III monitoring exercise may provide at least some of the necessary data for these evaluations. In such cases, the Committee’s Quantitative Impact Study Working Group will support the evaluation work. In other instances, there may be a need for ad hoc data collection exercises, either through one of the Quantitative Impact Study Working Group’s half-yearly Basel III monitoring exercises, through its collection of data from regulatory reporting systems or from other sources.

Q1. How should the Committee best strike the balance between the need for policy evaluation on the one side and the intent of not undermining members’ commitment to implement the post-crisis regulatory reforms?

Overall impact on minimum required capital

The Group of Central Bank Governors and Heads of Supervision, the Committee’s oversight body, agreed in January 2016 that in the calibration of the final Basel III framework, the Committee should “focus on not significantly increasing overall capital requirements”.⁴ The Committee has analysed the impact in a quantitative impact study on end-2015 data⁵ and recently published an updated assessment based on end-2017 data.⁶ For the large internationally active banks, the former study suggested a reduction in minimum required capital at the Tier 1 target level of –0.5%, while the latter suggests an increase of 1.7%, excluding the effect of market risk to make the two studies comparable (see Table 1 for details). Some of the differences are driven by more conservative assumptions for the implementation of the revised operational risk standards in some countries in the more recent study that may or may not become effective.

⁴ See GHOS (2016).

⁵ See BCBS (2017b).

⁶ See BCBS (2018).

Changes in Tier 1 MRC at the target level due to the final Basel III standards

Group 1 banks

Table 1

	Number of banks	Total		Risk-based requirements						Leverage ratio
		With MR	Without MR	Total	Of which:					
					Credit risk ¹	CVA	Market risk	Op risk ²	Output floor ³	
End-2015	71	n/a	-0.5	0.2	1.4	n/a	n/a	-3.0	1.9	-0.7
End-2017	72	3.6	1.7	4.8	-0.6	2.0	1.8	-0.1	1.8	-1.2

¹ Change in MRC due to the revised standardised and IRB approaches, including securitisation. ² Change in MRC due to revised operational risk framework. Figures may not show supervisor-imposed capital add-ons. Therefore, increases in MRC may be overstated and reductions may be understated. ³ Net of existing Basel I-based floor according to national implementation of the Basel II framework.

Sources: BCBS (2017b), Table 2; BCBS (2018), Table 4.

Overall, these studies suggest that the Committee met its calibration goal at the aggregate level. The analyses also show that there is some dispersion of the change in minimum required capital across banks and countries. The Committee will continue to monitor the capital impact of its reforms overall as well as for individual risk types throughout the implementation phase of the framework. Past experience suggests that the impact could be further reduced once banks' ability to produce the relevant data improves, reducing the need for potentially conservative assumptions. Furthermore, supervisors will be able to provide banks with more detail on actual implementation of the standards in their countries where national discretions exist. Taken together, this will allow the Committee to gain more insights into the precise impact of its reforms in the coming years.

Q2. What impact of the finalisation of Basel III do you expect in your country? What are the key drivers?

Examples for the evaluation of individual reforms

Credit risk framework

One of the key goals of the finalisation of the Basel III credit risk framework was to improve comparability and to address the excessive variability in the capital requirements for credit risk that the Committee found in a study conducted in 2013.⁷ Assessing the extent to which variability in banks' RWA is "excessive" is an inherently difficult exercise. It requires judgment about the extent to which a bank's internal models-based (IRB) risk weight reflects the "true risk" of a given exposure. For the purposes of the cumulative QIS, the Committee has considered different proxies which seek to measure the degree of RWA variability. Each of these proxies is subject to shortcomings and inherent biases. However, collectively, and when combined with supervisory judgment, the analysis shows some evidence for a reduction in RWA variability among the Group 1 banks in the sample.

The left-hand panel of Graph 1 shows the distribution of Group 1 banks' current average risk weights compared to their average risk weights as a result of the revisions discussed above. It suggests that the Committee's reforms will compress this distribution by cutting off the left tail, a feature that in some cases may reflect aggressive modelling behaviour.

⁷ See BCBS (2013).

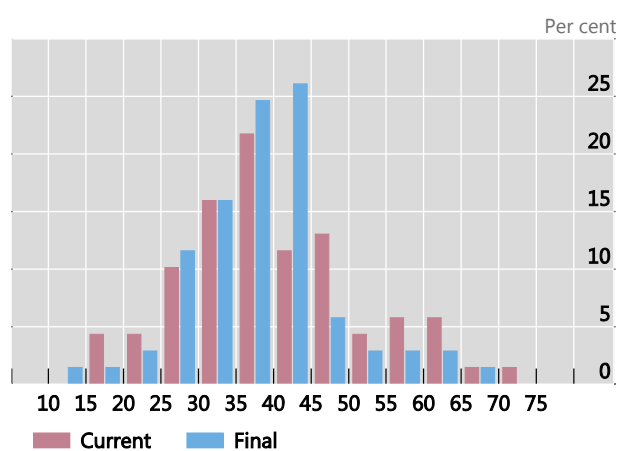
The right-hand panel of Graph 1 plots the percentage change in Group 1 banks' average IRB risk weights compared with the ratio of banks' average IRB risk weights to their average risk weights under the revised standardised approach. The latter assumes that a bank uses the revised standardised approach for its actual portfolios. Under the assumption that the revised standardised approach provides a reasonable level of risk sensitivity, the analysis suggests that those banks with the biggest change in average risk weights are precisely those with the biggest deviation from revised standardised approach risk weights, consistent with the policy objective of the Committee's reforms.

Changes in average risk weights

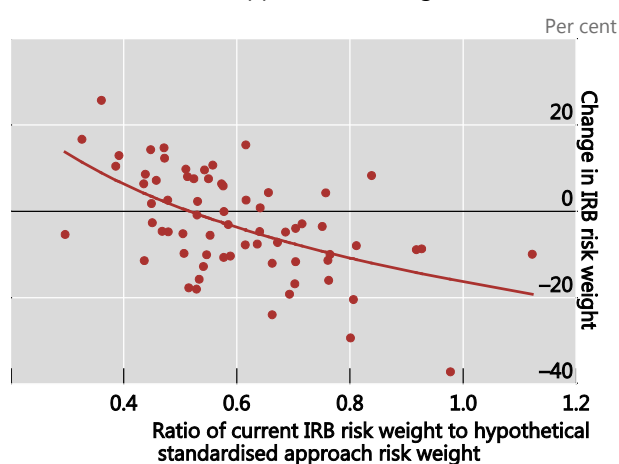
Group 1 banks, total credit risk excluding sovereigns

Graph 1

Distribution of risk weights



Change in risk weights and relationship with hypothetical revised standardised approach risk weights



Source: BCBS (2017b), Graph 9.

The question to what extent the variability of risk-weighted assets pre and post the finalisation of the Basel III framework has changed and to what extent any changes can be attributed to the revisions of the credit risk framework will remain an important evaluation question in the coming years. This will also require attribution of variability to risk-based and practice-based differences across institutions and jurisdictions.

Q3. What additional types of analysis would participants suggest to evaluate whether the revised credit risk framework has achieved the Committee's goals?

Basel III leverage ratio

Most of the elements of the Basel III leverage ratio were already finalised in 2014,⁸ with further revisions to the standard such as a leverage ratio buffer for global systemically important banks (G-SIBs) being finalised in BCBS (2017a). As set out in BCBS (2014), the Committee intended the leverage ratio to restrict the build-up of leverage in the banking sector and to reinforce the risk-based requirements with a simple,

⁸ See BCBS (2014).

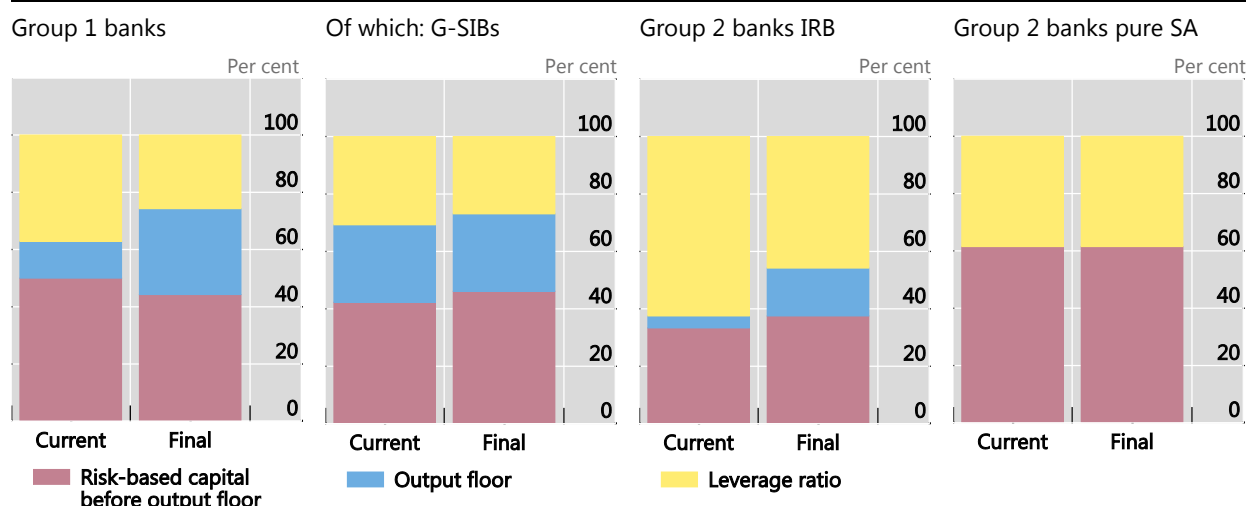
non-risk based “backstop” measure.⁹ Questions the Committee may consider in its evaluation could for example include:

- Whether the design of the leverage ratio adequately measures bank leverage;
- Whether the framework reduced the level of leverage in the banking system; and
- Whether the leverage ratio framework serves its intended role as a complement to the risk-based framework.

On the latter point, preliminary analyses in the Committee’s monitoring exercises suggest that the introduction of the output floor based on standardised approaches in the final Basel III framework will reduce the percentage of banks constrained by the leverage ratio at the top-of-the-house level. Of all Group 1 banks, the percentage of banks constrained by the leverage ratio declines from 37.1% under the initial Basel III framework to 25.7% under the final Basel III framework. This effect is particularly strong for smaller Group 1 banks. Among Group 2 banks, the leverage ratio will become less constraining mainly for banks currently using the IRB approach for credit risk.

Percentage of banks constrained by different parts of the framework

Graph 2



Source: See BCBS (2018), Graph 73.

Q4. If your country has introduced the Basel III leverage ratio framework, did this reduce the level of leverage in your banking system? Did you observe any changes in banks’ balance sheet composition when it is the constraining measure?

Liquidity

In BCBS (2010a), the Committee introduced two global liquidity standards. First, the 30-day Liquidity Coverage Ratio (LCR), which promotes short-term resilience against potential liquidity disruptions. The LCR requires global banks to have sufficient high-quality liquid assets to withstand a stressed 30-day funding scenario specified by supervisors. Second, the Net Stable Funding Ratio (NSFR), a longer-term

⁹ See BCBS (2014), p 1.

structural ratio designed to reduce funding risk over a longer time horizon by requiring banks to fund their activities with sufficiently stable sources of funding in order to mitigate the risk of future funding stress. In its evaluations, the Committee will analyse banks' responses to the introduction of the LCR and the NSFR, to what extent they meet their respective objectives, and how they interact.

Q5. If you have introduced the LCR in your country, did you observe a change in banks' asset and funding mix?

Interaction

In addition, the Committee through its Research Task Force will investigate the main economic channels through which capital and liquidity regulation interact (positively or negatively) in influencing risk-taking behaviour by banks and bank resilience, and aim at an overall evaluation of these effects. Data from the Committee's monitoring exercises may play an important role in this respect.

Macroeconomic impact

In 2010, the Committee analysed the long-term economic impact of stronger capital and liquidity requirements.¹⁰ The Committee assessed the economic benefits and costs of stronger capital and liquidity regulation in terms of their impact on output. The main benefits of a stronger financial system reflect a lower probability of banking crises and their associated output losses. The costs are mainly related to the possibility that higher lending rates lead to a downward adjustment in the level of output while leaving its trend rate of growth unaffected. While empirical estimates of the costs and benefits were subject to uncertainty, the analysis suggested that in terms of the impact on output there was considerable room to tighten capital and liquidity requirements while still yielding positive net benefits.

As a first step, the Committee has tasked its Research Task Force with a review of studies that have been conducted in the meantime. In addition, the task force will consider possible improvements to the framework used in the original 2010 long-term economic impact assessment framework needed to support – in a number of years' time – the overall macroeconomic evaluation of a framework that now includes risk-based capital, leverage, liquidity and large exposures constraints.

Q6. Have you conducted any macroeconomic assessment of the post-crisis reforms? How would you judge the overall costs and benefits of post-crisis reforms?

¹⁰ See BCBS (2010b).

References

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