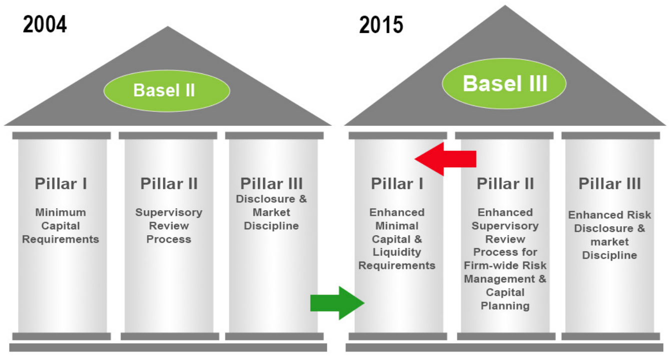
Interest rate risk in the banking book

Banks provide their views on the regulators' proposals to add interest rate risk in the banking book (IRRBB) to the calculation of banks' Pillar 1 minimum capital requirements

1. BCBS proposals for interest rate risk in the banking book (IRRBB): from Pillar 2 to Pillar 1 capital requirements

Until now, any capital requirement against IRRBB has been included as an add-on under Pillar 2 capital requirements. This began in June 2004 when the Basel Committee on Banking Supervision (BCBS) released the Revised Capital Framework (known as "Basel II") introducing the three pillar[1] approach. The Committee was convinced that IRRBB was a potentially significant risk requiring support from capital, but because of the considerable heterogeneity across internationally active banks in terms of monitoring and managing underlying risk, it was most appropriate to treat it under Pillar 2 of the Framework.



Today, eleven years later, the treatment of IRRBB is again subject to discussion. In June 2015, the Basel Committee issued for consultation its long-awaited proposals for adding IRRBB to the calculation of Pillar 1 minimum capital requirements. With these proposals, the regulators intend to limit incentives for regulatory arbitrage between a bank's trading book and banking book and to promote greater consistency, transparency, and comparability.

These proposals are important for banks because they are likely to:

- Increase the amount and quality of capital they need to hold;
- Make the regulations they have to meet even more complex;
- Require them to calculate capital requirements under a standardised approach even if they are also using more sophisticated approaches;
- Increase the disclosures they will be required to make.

For a summary of the proposals or a more detailed analysis please visit our website or read this KPMG International Alert.

The banking industry was invited to provide written comments on the consultation document (available on the BIS website) by 11 September 2015. In particular, the European Banking Federation and the Belgian Financial Sector Federation (Febelfin) welcomed the opportunity to comment on the BCBS consultation paper and support the joint association[2] response.

2. KPMG surveys banks on the potential impact of the new BCBS proposals

To get insights into the diversity of approaches with regards to IRRBB in the Belgian banking sector, banks were asked to rate:

- Their awareness and proactivity levels with regards to new BCBS proposals;
- The relative importance of IRRBB in their Pillar 2 economic capital;
- The current level of sophistication of their IRRBB models.

To assess the potential impact of an implementation of the BCBS proposals, banks were then asked to provide their view on:

- The biggest challenges for the bank should the proposed Pillar 1 approach be implemented in the current state;
- The potential impact of the proposed BCBS framework along several axes (e.g. data management and IT systems, financial situation, etc.);
- The extent to which the BCBS proposed framework globally meets the intended objectives of risk sensitivity, simplicity and comparability.

[1] Minimum capital requirements, supervisory review process, and market discipline
[2] Institute of International Finance, IIF; International Banking Federation, IBFed; Global Financial Markets Association, GFMA; International Swaps and Derivatives Association Inc., ISDA

Responses of participating banks were collected on an individual basis through an online survey[3] and then combined in order to produce a consolidated view[4]. The panel of participating banks was a balanced mix of significant entities under ECB supervision and less significant entities under NCA supervision.

3. Main lessons drawn from the survey

Lesson 1: Banks remain alert but are not taking action yet

The survey reveals that most banks are very well aware of the new regulators proposals. The level of awareness tend to be higher for larger banks in the sample, which are also keener to participate in the BCBS consultation (e.g. Quantitative Impact Study, position letters of banking federations). While the average level of awareness is high, this does not imply per se a strong proactivity from banks in analyzing the potential impact of the proposals and in anticipating actions to comply with potential future changes. In fact, about 50% of the banks performed some high level analysis (e.g. gap analysis), but all decided not to take any further action yet. The other 50% of the banks (showing higher concentration in smaller banks) is still in a "wait and see" mode.

The main reasons provided by the banks for not being more proactive are:

- The too large uncertainty about the future regulations;
- The higher priority given to other projects (sometimes coupled with a lack of available resource).
- Banks also mention strong negative reactions from the sector that make the current proposal unlikely to pass (without any further consultation) in the near future.

Lesson 2: Belgian banking sector shows strong heterogeneity across banks from an IRRBB perspective

The survey reveals that the materiality of IRRBB (as part of the Pillar 2 economic capital) differs significantly from one bank to another. The level of importance varies from 'low' to 'high' across participating banks with the relative part of IRRBB in the total economic capital requirements that can reach a level up to 40%.

Also, the sophistication level of IRRBB models depends on the size and the bank's business model and tends to be higher on average for larger banks in the sample. As shown in Figure 1, the self-assessment score provided by the participating banks on their level of sophistication of IRRBB models ranges from 2.0 to 3.7 on a scale from 1 (low level of sophistication) to 5 (advanced internal model), illustrating that banks are on very different maturity levels when speaking about IRRBB models.

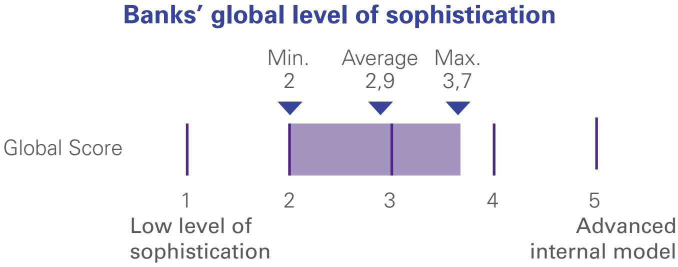


Figure 1 – Survey results: Banks' self-assessment of the sophistication level of their IRRBB models

Despite this high level of heterogeneity across banks, one can however clearly identify in Figure 2 the IRRBB topics that received more attention in the past from the banks and are subject to more sophisticated models.

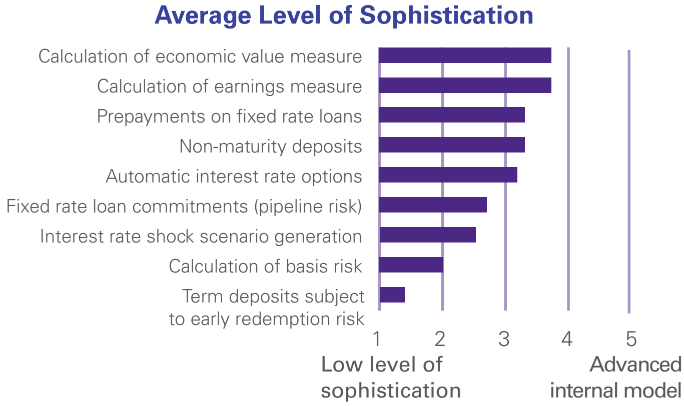


Figure 2 – Survey results: Average level of sophistication of IRRBB models in place

Beside the calculation of earnings and economic value measures, the focus lies first of all on product types that are typically subject to significant behavioral assumptions, e.g. fixed rate loans with prepayment options, and non-maturity deposits (NMDs). The latter are particularly difficult to include into frameworks for the management and pricing of interest risk given the two embedded options: one option held by the bank (i.e. the right to change the interest rate) and one behavioral option held by the depositor (i.e. the right to withdraw their funds).

Term deposits, which are also subject to behavioral assumptions (early redemption risk) obtain however the lowest score (average score of 1.4) with regards to model sophistication level. The reason is mainly that term deposits are considered by many banks as not material. As noted by the Belgian Financial Sector Federation (Febelfin) in its comments on the BCBS consultative document, "non-maturity deposits, both savings and current accounts constitute by far the largest part of the commercial deposits". The volume of term deposits decreased significantly over the last couple of years, representing today only a small part of customer deposits.

Lesson 3: Banks would face many challenges should the proposed Pillar 1 approach be implemented

BCBS proposals are complicated and will be fiddly and complex for banks to apply. The survey reveals that about half of the surveyed IRRBB topics received a score of 3 or higher on a scale from 1 (minor changes expected) to 5 (significant

[3] The survey took place in September and October 2015.

[4] The consolidation is made by averaging all individual answers, attributing the same weight to all answers. In case a bank answered "not applicable" to a question, the bank was taken out of the sample for that specific question.

changes expected) that expresses the magnitude of changes expected by the banks should the proposed Pillar 1 approach be implemented.

As shown in Figure 3, the major challenges are first expected for products with optionality, either with behavioral options (e.g. prepayments on fixed rate loans, non-maturity deposits) or automatic options, and for the calculation of Pillar 1 minimum capital requirements. While the implementation of the proposal for basis risk calculation is seen as a potential issue because of the currently low level of sophistication of related models, calculation of earnings and economic value measures should not be too much of a problem for banks given the rather standard approaches proposed by the regulator and the relatively high level of sophistication of related models currently in place.

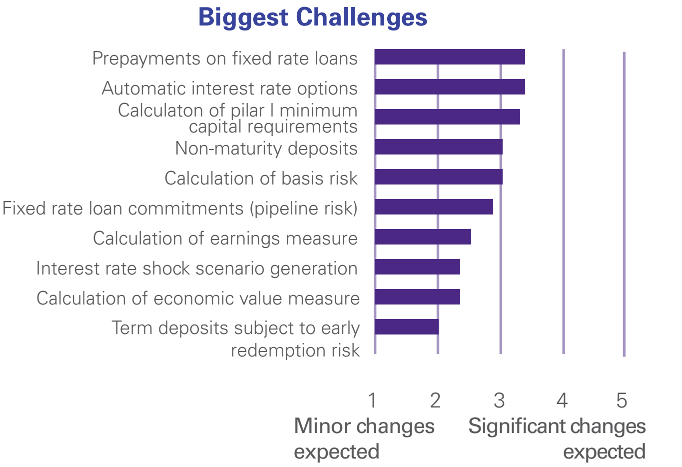


Figure 3 – Survey results: Biggest challenges for banks should the proposed Pillar 1 approach have to be implemented

Challenges identified for products with optionality

The BCBS proposals are very prescriptive for products with optionality[5] and the surveyed banks express concerns about the application of a one-size-fits-all approach, which is most likely to give a completely biased picture of the actual risk faced by the banks. Most criticisms expressed by participating banks relate to the perceived penalizing treatment of non-maturity deposits, which in the proposed framework would most likely attract a much lower maturity than currently under Pillar 2. Given the complexity of modelling behavioural factors, some reliance on internal estimates is also permitted, subject to adequate controls on use as well as a demonstration of the accuracy of the metrics through independent validation. Banks fear that if they opt for internal estimates, they would be subject to significant additional workload for validation, back-testing and documentation of the internal models.

Challenges identified for the calculation of Pillar 1 minimum capital requirements

Calculation of Pillar 1 minimum capital requirements is seen as a potential challenge because of the uncertainty around the final methodology to be applied. Indeed, the BCBS remains undecided between four methods of calculating the final capital requirement – a pure economic value calculation (option 1) and three alternatives (options 2 to 4) incorporating various forms of earnings overlay mechanisms. This makes it very difficult for banks to predict the impact of these methods.

In their comments on the consultation document, the European Banking Federation and Febelfin stress that capital need for IRRBB should be derived from a risk of loss[6] due to IRRBB and relate solely to IRRBB. They deplore that under the first three proposed options, the value sensitivity measure is clearly the dominating factor while this measure is reflecting opportunity cost / variability risk rather than a risk of loss. They claim that the proposed combination of value and earnings based required capital is not consistent with the measurement of available regulatory capital, which only reflects value losses/gains on banking book positions to a minor extent (i.e. through AFS bonds).

Lesson 4: The potential impact of the proposed BCBS framework would mainly lie on operational workload and financial situation

According to the survey, largest impact is expected on the level of operational workload and financial situation (see Figure 4), which both received an average score of 3.5 on a scale from 1 (no impact) to 5 (severe impact) that expresses the magnitude of impact expected by the banks should the proposed BCBS framework be implemented. This view is shared by smaller and larger banks in the sample, with a slight difference in the size of the impact; overall larger banks in the sample expect a higher impact than smaller banks. With an average score of 2.9, data management occupies the third place in the ranking, before business model (average score of 2.7), IT systems and governance (average score of 2.5), and accounting (average score of 2.2).

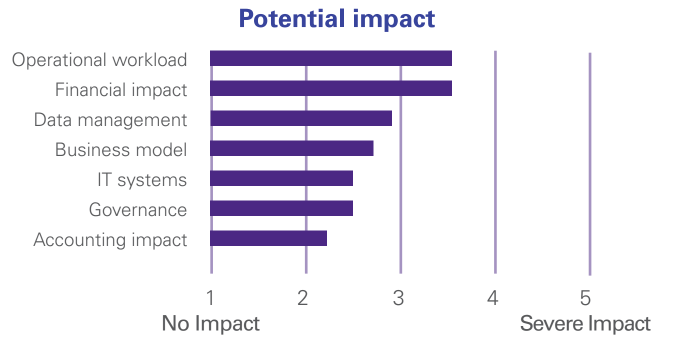


Figure 4 – Survey results: Potential impact of the BCBS proposed framework

Operational workload

Although larger banks should have already sophisticated models in place, a strong effort would still be needed in order to incorporate the totality of the various calculations required under these proposals. Should banks opt for internal estimates, significant additional workload would be expected for validation, back-testing and documentation of the internal models. Some smaller banks are likely to struggle with the additional complexities of the proposed approach, even if they follow the simplest standardized options. Globally, banks expect staffing issues and / or higher workload in comparison to current IRRBB regulatory reporting.

[5] BCBS proposals include a very detailed approach for non-maturity deposits (NMDs) and behavioural assumptions for the prepayment of fixed rate loans, the drawing down of loan commitments, etc.

[6] Risk that the capital of the bank will be reduced through negative earnings resulting from the effect of an adverse interest rate scenario.

Financial impact

Banks also expect a significant impact on their CET1 ratio should the capital requirement for IRRBB (either based on current Pillar 2 economic capital or expected Pillar 1 regulatory capital requirement) need to be covered by CET1 capital only. The impact can be as much as -11% on the CET 1 ratio but this impact would be reduced significantly should management actions be taken into account. The expected impact is generally higher for larger banks in the sample. In rare cases, banks even reported that this impact on the CET1 ratio could trigger the need for additional CET 1 capital to remain Basel compliant.

In their comments on the consultation document, Febelfin provides a first gross estimation of EUR 6 billion carry loss in 2014 for the possible financial impact of the Basel proposals on the Belgian banking industry. This estimate is obtained by looking at the volatility of the recurrent net interest income base over the last years assuming Basel NMDs' assumptions.

Data management and systems

Finally, many banks may need to amend their data and systems in order to undertake the totality of the various calculations required under these proposals. And many banks may struggle to turn this into a robust, automated and streamlined process. In particular, even larger banks may need to amend their data management and IT systems in order to use their own estimates for the maturity bucket slotting of non-maturity deposits and for the behavior of other types of bank customer, and to use their own internal modelling under the enhanced Pillar 2 approach.

Lesson 5: Banks recognize the effort made by the regulators to harmonize practices but strongly reject the proposal because of the lack of risk sensitivity

Elaborating a new IRRBB framework is a difficult exercise, where a trade-off is necessary between risk sensitivity, simplicity and comparability. KPMG asked the participating banks to give their opinion on the extent to which the regulators achieve all of these objectives. The results are shown in Figure 5 on a scale from 1 (objective not met) to 5 (objective fully met).

By granting an average score of 3.7 to the objective of comparability, banks consistently recognize the efforts made by the regulators to harmonize practices, which in its turn should increase comparability. Despite this high score given to comparability, banks remain in favor of a true Pillar 2 approach.

If banks are of the opinion that regulators globally met the objective of comparability, they are also of the opinion that it is to the detriment to the other two objectives: simplicity and risk sensitivity. The objective of simplicity does not make the unanimity and receives an average score of 3 with some divergence of opinions between the banks in the sample. Risk sensitivity receives the lowest score (average score of 2.3), which translates the opinion of the banks that regulators failed in their difficult equilibrium exercise. This view is also supported by comments received from the industry on the BCBS proposals and published on the BIS website.

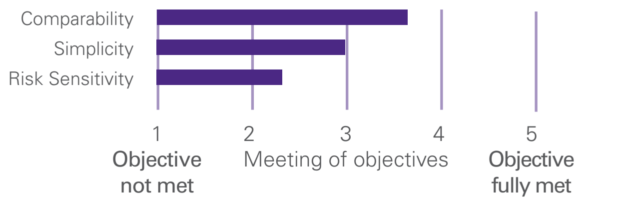


Figure 5 – Survey results: extent to which the regulators have met the intended objectives of risk sensitivity, simplicity and comparability

When asked to indicate in which aspect of the proposed framework the BCBS best meet the intended objectives of risk sensitivity, simplicity and comparability, banks welcome above all the introduction of simplified methods (e.g. simplified time series approach for NMDs) or standardized fallback scenarios / models that small to medium banks can apply for. Banks also recognize that standardization could have a positive effect on regulatory arbitrage and welcome the inclusion of earnings sensitivity (not only looking at economic value of equity sensitivity).

On the opposite, banks are stressing that it is not possible to standardize all aspects of IRRBB. Using same assumptions for all banks could lead to all but realistic assumptions given the particular model of each bank. This is especially true for NMDs.

4. Conclusion

The regulators' proposals to add interest rate risk in the banking book (IRRBB) to the calculation of banks' Pillar 1 minimum capital requirements draws the attention of the banking sector as they may lead to a significant impact on banks from different perspectives: higher operational workload, higher pressure on banks' profitability with a potential need for additional capital, new data requirements and update of IT systems, etc.

Based on the comments published on the BIS website, it is clear that the banking industry is strongly opposed to the proposed framework and is convinced that IRRBB should not be treated under a Pillar 1 approach. Banks rather support a true Pillar 2 approach based on Binding Sound Practice Principles and Tests to identify potential outlier banks.

The survey reveals that banks recognize the efforts made by the regulators to harmonize practices and increase comparability, and welcome the introduction of simplified methods or standardized fallback scenarios / models. However, the survey also highlights that banks do not support the proposed framework given the numerous drawbacks perceived:

- The inappropriateness and over conservativeness of some standard approach assumptions (e.g. treatment of non-maturity deposits);
- The uncertainty around the final methodology to be applied for the calculation of Pillar 1 minimum capital requirements and the inappropriateness of the economic value of equity measure to capture the risk of loss linked to IRRBB;
- The inappropriateness of a one-size-fits-all approach given the complexity of products, and the strong heterogeneity across banks from an IRRBB perspective; and
- The lack of risk sensitivity of the proposed approach.

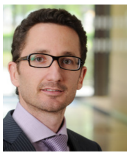
Given the strong consistently negative reaction from the banking sector, we expect that further consultation will be organized by the Basel Committee before final guidelines are drafted. This is also the opinion of the surveyed banks, which all estimate it is premature to already take actions and prepare to comply with the proposed framework.

KPMG will keep you informed as soon as latest developments are known. These may not arrive in the first half of 2016 if regulators decide to deeply revise their copy...

Contact

Koen De Loose
Partner
KPMG Advisory

T +32 2 708 43 17
E kdeloose@kpmg.com



Stéphane Neuville
Director
KPMG Advisory

T +32 2 708 48 31
E sneuville@kpmg.com