

A response to the Basel Committee's consultative document on
Interest rate Risk in the Banking Book
by the
British Banker's Association

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Introduction

The BBA is the leading association for UK banking and financial services representing members on the full range of UK and international banking issues. It represents over 200 banking members active in the UK, which are headquartered in 50 countries and have operations in 180 countries worldwide. Eighty per cent of global systemically important banks are members of the BBA. As the representative of the world's largest international banking cluster the BBA is the voice of UK banking.

All the major banking groups in the UK are members of our association as are large international EU banks, US and Canadian banks operating in the UK as well as a range of other banks from Asia, (including China), the Middle East, Africa and South America. The integrated nature of banking means that our members are engaged in activities ranging widely across the financial spectrum from deposit taking and other more conventional forms of retail and commercial banking to products and services as diverse as trade and project finance, primary and secondary securities trading, insurance, investment banking and wealth management.

The BBA is pleased to respond to the Basel Committee's consultation¹ on interest rate risk in the banking book (IRRBB) as it will affect all our members very significantly. The BBA is generally supportive of the efforts of the Basel Committee to improve consistency and effectiveness of the regulatory IRRBB framework and to enhance the approach for better capturing risks linked to IRRBB management.

Executive Summary

While we are supportive of the BCBS' intentions to strengthen the capital framework, there is broad agreement among our members on conceptual underpinnings of any proposed approach; in particular there is general consensus that any potential capital framework for IRRBB should address the following concerns:

- ***A capital charge should only apply if there are real losses, not variability of earnings.*** We are firmly of the view that capital should only be required if the interest rate scenario results in a loss on the banking book, net of any embedded value. Variability of potential profit caused by a stress should not require capital.
- ***We support a principle based framework which allows for the use of banks' internal models, metrics and assumptions.*** Due to the nature of interest rate risk in the banking book we believe the approach applied needs to be flexible enough to be able to accommodate the multiple facets of IRRBB risk management and reflect the differing nature

¹ <http://www.bis.org/bcbs/publ/d319.pdf>

of the risk across jurisdictions and business models. As such we are of the view that a principle based framework is more appropriate than a standardised approach

- ***Standardisation of behavioural assumptions may lead to a misrepresentation of real risk.*** Regulators should not prescribe either directly, or by implication, any bounds on assumptions about re-pricing maturity, pricing strategy, balance retention or investment horizon. Diversity of risk management practices is healthy and makes the sector as a whole more competitive and resilient and flexibility is necessary in order to enable accurate reflection of risks to which a bank is exposed.

Industry Conceptual Concerns

A capital charge should only apply if there are real losses, not variability of earnings

The consultation document proposes capitalising IRRBB based on the potential variability of earnings resulting from an interest rate shock. While this treatment is appropriate for the Trading Book, it is not for the banking book, due to the fundamental difference in the accounting treatments of gains and losses between the banking book and the trading book.

In the trading book the market value of a portfolio is calculated and recognised in P&L on a regular, usually daily, basis. So any change in the market value of the portfolio from an interest rate scenario represents not only a change in the value but a loss (or gain) that will be taken to P&L immediately. Hence it makes sense to capitalise the variability of the portfolio under the rate shock.

In the banking book, accrual streams on customer products are locked in and the economic value of the portfolio is not recognised in P&L immediately, but rather over the life of the transaction. As a result, the banking book has a stream of accrual flows (embedded value) that will be realised in future periods. When an interest rate shock is applied to the portfolio the resulting change in economic value represents the variability of current earnings, but not the absolute economic value of the portfolio, as it does not capture the embedded value of these locked in accrual flows. As such we believe that capital should only be held against this position if the change in economic value exceeds the value of the locked in accrual stream.

For example, if a bank has a structurally hedged non-interest bearing current account portfolio with a positive embedded value (as the hedge rate is higher than the customer rate i.e. 0%) and an upwards interest rate shock is applied there is a negative EVE sensitivity. While this will result in a reduction in the economic value of the position, this is not a loss, but rather an opportunity cost, as all the change in economic value reflects is that it could make a higher profit had the hedge been put on post the shock. The net position for the bank will remain in profit on this portfolio as long as the hedge rate is greater than the customer rate, being 0%.

We support a principle based framework which allows for the use of banks' internal models, metrics and assumptions.

We understand the aim of achieving consistency across the industry so that banks have comparable risk and a capital requirements levels for IRRBB. A standardised-type IRRBB methodology would not achieve this as such a simplified approach will not be able to appropriately reflect risk exposures across the wide range of jurisdictions and products and therefore not provide a metric suitable to be used for bank comparison.

Increasing the level of sophistication of a prescribed methodology could produce results that better represent risk exposure levels, but such methodologies are likely to be too complex to be prescribed in a regulatory framework.

We believe the most appropriate way to manage a principle based framework is through an approved internal models approach as is already permitted with Traded Market Risk. This approach will ensure the sophistication of IRRBB management and measurement can be tailored to be appropriate for each jurisdiction and also for the size and complexity of each institution. The outlier test, as described in Principle 10, would allow the BCBS to meet the objective of comparable and consistent review. The results of this test can be comparable but also rely on the use of banks internal measurement systems, rather than a standardised approach.

Standardisation of behavioural assumptions may lead to a misrepresentation of real risk

By definition, behaviouralisation must be firm specific as it is driven by balance sheet structure and local market conditions. We therefore fundamentally disagree with the notion of behavioural standardisation. Imposing standardised behavioural assumptions not only encroaches on a bank's pricing model but also does not allow a bank to reflect the jurisdictional, cultural, tax and behavioural characteristics of the markets it operates in. There is also a risk that these standardised assumptions will result in an over-simplification of the risk which may mask banks' true risk exposure.

Banks offer products to a wide spectrum of customers whose reaction to changes in market conditions are dependent on their individual circumstances. Accordingly, the impact of a rate shock on a particular product is dependent not only on the product's characteristics, but also the competitive environment and wider economic conditions in which the bank's customers operate. An example of this was mortgage prepayment behaviour in 2008/9 in the UK. During 2007/8 a number of customers entered into 5 year mortgage deals at prevailing (circa 6%) rates. After the sharp fall in base rate in the UK there was no observable increase in prepayment rates on these mortgages, as may have been expected, even though the customers theoretically could refinance into much cheaper products. The reasons customers did not prepay was many fold, for example some had moved into negative equity so were not able to refinance, while others were affected by the reduction in credit supply across the mortgage market.

The challenge of standardisation is most apparent on non-maturity deposits (NMDs) where it is likely that the consultation document's standardised approach will impose a level of risk far greater than the actual risk of a bank's balance sheet:

- The pass-through assumptions fail to capture the behaviour on many products, particularly transactional accounts that are often contractually fixed at 0%, and ignore that even in cases where products are able to reprice the actual pricing behaviour of the bank is dependent on a number of qualitative factors, including, the wider competitive environment, the bank's profit targets, regulatory concerns and the wider rate cycle.
- The stability caps diverge from the product behaviours actually experienced by banks. Across the UK alone there are several hundred NMD products that are targeted at a wide variety of different market segments. Accordingly, banks carry out granular analysis of product and customer behaviours of the segments that they operate in and tailor their behavioural assumptions appropriately for the underlying customer group.

- The 3 year maximum duration for modelling the core component of NMDs limits a bank's ability to reduce its earnings volatility while the 6 year tenor cap does not let banks transact their hedges over a variety of tenors (while staying inside the duration cap) to reduce their concentration risk to particular yield curve points. While limiting the duration may appear to be conservative banks may be encouraged to shorten the duration of their structural hedging, increasing income volatility across the banking sector. There is also a risk of concentration across the industry around the regulatory benchmark term.

It appears that all three of the NMD constraints of the proposed framework are focussed on reducing the income drag of structural hedges in a rising rate environment. While we agree that if banks decide to adjust their hedging to align with the regulatory prescribed benchmark, this will be beneficial to banks' earnings in a rising rate environment, but it will also leave banks exposed to a fall in rates. We are particularly concerned about this point as banking books are already significantly exposed to falling rates, due to the margin compression that they will suffer on their variable rate liabilities when rates fall again in the future. It is important that approach to be adopted for IRRBB is appropriate for all interest rate environments and not just the current situation.

While these are the three key points there are also a number of other industry concerns that we would like to bring to your attention. These are covered in the following appendices.

Appendix 1: Conceptual Concerns

- Calibration of IRRBB on a gone concern basis
- Impact on Bank Business Models and Competition

Appendix 2: Technical Concerns

- Specification of Economic Value of Equity (EVE) sensitivity measure
- Specification of General earnings based (NII) measure
- Specification of measurement of net interest profit (NIP)
- Specification of measurement of basis risk

Appendix 3: Key issues identified with proposed Pillar 2 approach

Thank you for the opportunity to respond. We would welcome the opportunity to discuss this with you in more detail. Please contact Simon Hills simon.hills@bba.org.uk if you have questions or comments on any of the issues raised in this response.

Yours sincerely



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Appendix 1: Conceptual Concerns

Calibration of IRRBB on a Gone Concern Basis

The consultation proposes that the capital charge is based on the change in economic value of equity with all equity instruments (CET1, AT1, T2) being excluded. This implies that it is adopting a gone concern approach with an immediate impact to the amount of equity requiring any hedging to be unwound and any losses crystallised.

However, IRRBB is managed by many institutions on a going concern basis as management techniques are focussed on stabilising earnings through the cycle and protecting the business against unexpected rate shocks. This difference in approach results in a fundamental disconnect between the proposed regulatory regime and current management practices.

This difference is most apparent in the interest rate risk management of equity. In a going concern environment these balances are often hedged to protect the bank's earnings from sharp falls in interest rates and to smooth income over the medium to long term. In the event that there is a reduction in equity the mark to market of these hedges will not be realised, as it would be irrational for banks to liquidate these hedges at a loss. Instead, when changes in hedge notional are required, banks have a variety of tools for example; stopping rolling the hedge; allowing the balance to naturally reduce; or transacting an equal and offsetting trade so that the future fixed income stream is adjusted. Accordingly in a going concern environment there will never be a loss event on the equity hedges that needs to be capitalised, instead there will be only be a change in the earnings accrual stream over a number of years.

Hedging of equity is similar in nature to structural hedging of rate insensitive current accounts as in both cases any payment to the customer / shareholder is not linked to the level of interest rates and any derivatives are transacted to reduce earnings volatility. Accordingly, it is not possible in a going concern to make a loss from equity hedging unless a negative hedge rate is locked in.

One unintended consequence of the proposed treatment of equity is that banks with stronger capital positions than their peers will appear to be more at risk if they choose to hedge their equity. This leads to the perverse outcome that the stronger the capital position of the bank, the more at risk the bank will appear and consequently the more capital is required according to the Basel approach. This could discourage hedging of these instruments which can lead to greater earnings volatility, the risks of increased pro-cyclicality with arising from the volatility of CET1 ratios which may threaten financial stability by making the bank significantly more vulnerable to a sudden falls in interest rates, as the equity hedge no longer acts as a buffer against the rate shock.

An impact assessment performed by the BBA for the UK banking industry covering the period of 2006-2013 suggests that hedging of equity would have provided higher and more stable income over the observation period. In contrast, had the BCBS approach been applied during the financial crisis it could have contributed to bank insolvency due to increased earnings volatility.

If BCBS decides to capitalise IRRBB on a gone concern basis we question if it is more appropriate for the capital requirement to be expressed in terms of gone concern e.g., bail-in-able capital, rather than CET1. If the intention is to hold CET1 against the risk we believe it is more appropriate to

capitalise this risk on a going concern basis with the assumptions reflecting BAU activities i.e. structural hedging in place to smooth income volatility and that a rate shock is then applied to the book.

Impact on Bank Business Models and Competition

If implemented, the proposed introduction of a Pillar 1 IRRBB capital charge will have a profound effect on the way that banks perform the fundamental role they undertake for society, that of taking deposits, lending money, facilitating money transmission and providing risk management services. The changes, if introduced as proposed, would cause some banks, particularly those that may be smaller and focussed on providing finance to niche markets, to reconsider their business models, including the price at which they lend to or take funding from different types of counterparty.

It is quite conceivable that some categories of business would become uneconomic for banks and in our view in the UK barriers to entry will be raised for new entrant 'challenger' banks which are an increasingly important component of the market. Such challenger banks are beneficially broadening the range of customer choice and reducing the overall concentration of the banking system. Although we recognise that the BCBS framework applies to internationally active banks on a group-wide basis it should be remembered that in many jurisdictions it is applied much more widely so will have an impact on the business models of large and small banks alike.

The proposed IRRBB approach risks significantly increasing capital requirements for certain parts of a bank's business that are of high social value. Unsatisfied lending demand could be met by the shadow banking sector with the implication that counterparty exposures will be less visible to the regulatory community.

Additionally, not all business models within the UK have a trading book.

The consultation paper focuses on large internationally active banks, however, in the UK the tier 1 and tier 2 financial services organisations have been included in the QIS. Building Societies are included in this cohort; however, the business model of a building society differs from that of a bank in 2 key ways:

- No trading book
- Member value is distributed back via NII

The consultation paper does not seem to allow for these differences in approach to business models. There is no arbitrage possible where no trading book exists. In addition, using the risk sensitive threshold capital framework including historical NII less costs may not be reflective of the building society sector's profitability. NII is the mechanism used for distributing benefit to members, rather than below the line dividends used by banks. Therefore, using historic NII may be misleading and create an inconsistency in approach between business ownership models in the sector, as some firms will consciously run a lower NII.

At the same time we are concerned that a combination of pressure from regulators and investors will force banks into copycat strategies with the attendant possibility of herding behaviour that will concentrate risk, particularly if a standardised Pillar 1 IRRBB overrides the ability of banks to make

their own assessment based on their knowledge of the behaviour of their depositor and borrower bases.

Appendix 2: Technical Concerns

We would also like to take the opportunity to raise our concerns with the following more technical elements of the consultation document.

Specification of Economic Value of Equity (EVE) sensitivity measure

The economic value approach attempts to show the economic impact on the banking book of an interest rate shock at a fixed point in time. The approach is similar to the market risk assessment of the trading book, but there are different challenges around adopting this approach with the banking book. Banking book exposures are predominantly recognised on an amortised cost basis in both accounting and regulatory financial reports and are not marked-to-market through the income statement as trading book exposures are. This means that the economic value impact of a rate shock does not affect reported capital adequacy in the same way as it would in the trading book.

In the proposed BCBS EVE approach both equity, as well as additional tier 1 and Tier 2 instruments have been excluded. This indicates that the BCBS is taking a liquidation or gone concern approach to the capital treatment of IRRBB that is closely linked to other parts of the regulatory framework i.e. recovery and resolution. We believe that this potential overlap needs to be carefully considered and understood before any changes are made to the capital regime.

Another aspect of the economic value approach that gives rise to concern is the requirement to allocate capital against embedded net interest margin. In these cases, the economic value sensitivity of embedded interest margin in to an interest rate shock does not affect the solvency of a bank. A positive nominal accrual will continue to accrete to income even if the path of interest rates changes. Nonetheless, the consultation paper proposes that banks allocate capital to the sensitivity of the value of this margin. This aspect of the proposal will make higher interest rate margin business more capital intensive than low interest rate margin business causing a bank to potentially hold a higher level of capital for no reason apart from having successfully negotiated business at a higher rate than its competitors.

These technical facts provide additional evidence of the issues resulting from using variability instead of real losses to determine capital requirements.

Specification of General earnings based (NII) measure

The proposed general earnings-based (NII) measure as outlined in the consultation attempts to strengthen the regulatory defined EVE approach, by accounting for short term volatility in Earnings. However, this approach is weakened by its failure to reflect the prevailing repricing assumption and its discounting of the earnings. As a result the proposed approach will not accurately reflect the bank's likely earnings under the rate shock scenario, potentially masking the true earnings risk resulting on the balance sheet.

Standard earnings based approaches normally measure the expected change in NII under a rate shock, over a specified period, assuming that the balance sheet is replenished (either to the starting position or in line with business plans). They also factor in how business pricing changes over time

and as a result they are able to fairly closely approximate the real change in a bank's NII. By using the original product margin when re-investing a maturing cash flow the methodology fails to reflect the current wider economic environment that the bank is operating in and may significantly misstate the earnings on these rolled balances. For example, if a loan is maturing in six months and has a current margin of 10%, but the prevailing margin level is 5%, then the NII measure should capture six months at 10% and six months at 5%, not 12 months at 10%. The proposed measure appears to ignore this.

The challenge with discounting earnings is that it will either under or over state (depending if the business is customer asset or liability long) a bank's NII over time and not truly reflect a Bank's sensitivity to interest rates, which is the purpose of the NII measure. For longer term earnings metrics this factor can significantly distort the outcome of the earnings metric. For example if a five year Earnings metric is calculated on the South African Rand earnings would be discounted by c.50% in the 5 year tenor. This impact may be even more significant in other jurisdictions with higher interest rates and therefore completely distort the value of this metric.

We also note that more clarity could be provided as the NII measure laid out in section II.4.2. of the CD does not explicitly note that this measure is assuming balance sheet replenishment, and therefore, as it is described it appears to be an adapted EVE measure. While Annex 2 clarifies the treatment this is not explicitly linked to section II.4.2.

Specification of measurement for net interest profit (NIP)

Net Interest Profit (NIP) is defined as "a proxy for banking book earnings that are expected based on locked-in margins in the near future after adjusting for expenses and costs associated with banking book activities". Based on this definition this measure does not appear to fully capture banking book NII as it only measures the NII generated from banking book positions which have a locked in margin, such as mortgages. However, if earnings on banking book positions which do not have a locked in margin, such as current accounts, are not considered, then the embedded value of the book is not truly captured. In addition this definition appears to penalise high margin banks, as the future margin will contribute to the capital charge, but these future earnings less cost will be offset against past performance.

Annex 3 provides some further guidance on NIP and defines it as "NII attributable to banking book positions minus costs". This further guidance intimates that the total banking book NII is considered, not just products with locked in margins. However, further definition and clarity needs to be given around the purpose and application of the α parameter before we can understand the treatment of the embedded value of the book. Even so, this will not reflect the full embedded gain on some derivative positions (i.e. derivatives with a positive mark to market). This leads to an inconsistency of treatment as any embedded losses on derivatives are taken through capital.

Specification of measurement for basis risk

As an industry we have found the basis risk section in particular very difficult to interpret and further clarity and guidance needs to be provided in the consultation paper. From our understanding of the consultation one of our key concerns is the requirement to shock all combinations of spreads simultaneously and aggregate the output i.e. with no diversification. It is assuming that these scenarios all occur at the same time, which is not realistic and will misrepresent the true exposure. In reality banks typically tend to analyse their balance sheets by identifying balances that are linked to

each reference rate and then running simulations to estimate the basis risk exposure on a forward looking basis. The simulation takes into account a range of assumptions about, among others, customer behaviour, management action, new business or hedging action.

The basis risk methodology proposed by BCBS assumes an instantaneous shock that is fully passed on to all the product balances in scope, disregarding any differences in product characteristics. The shock is assumed to last for 12 months and does not take into account any actual repricing dates. Clearly a position which re-prices in 3 months or 6 months' time for one year does not have NII sensitivity for over the next 12 months, but has only 9 months and 6 months exposure respectively. The paper does not appear to differentiate between different types of assets and this could lead to institutions holding excess capital. An institution can have different categories of policy rate linked assets (even where they are contractually linked) e.g. mortgages vs. central bank cash held within a liquidity buffer. For example, an un-hedged 2yr tracker mortgage funded at interbank rate would have basis risk over the next 12 months (which is period being measured here) but cash at the central bank might not, since there are management actions that could result in the cash being withdrawn from the central bank and invested in alternative assets as part of risk management. In this case the deposit at the central bank would not have basis sensitivity over the next 12 months.

In the reference basis calculation administered rate is included as one rate which does not reflect reality as administered rate products include both assets and liabilities the pricing of which can be changed by management at its discretion. The administered rate pricing decisions are impacted by a range of factors apart from level of interest rates, such as regulatory expectations, competitor pressure and customer behaviours and could be considered as a business risk and not basis risk.

If administered rate products are regarded as basis risk then the standardised treatment of non-maturing deposits will also have a knock-on effect on the volumes used in the basis risk calculation, since the assumed non-core portion of non-maturing deposits will be modelled as re-pricing overnight. This means that the repricing profile as per the BCBS approach will divert significantly from the internal measurement by the bank and there will be an over, or underestimate, of the risk as result.

Appendix 3: Key issues identified with proposed Pillar 2 approach

Given the complexities we have noted in trying to standardise a Pillar 1 approach across the industry, we are supportive of the Pillar 2 approach taken, with the aim of enhancing the capital framework through a principle based approach. We are broadly supportive of the principles as they are laid out, with the key exceptions noted below:

- Inclusion of credit spread risk in the banking book (CSRBB)
- The quantitative public disclosure of IRRBB and some qualitative public disclosure
- Use of the standardised framework as a fall back option

Credit Spread Risk in the Banking Book

We have a number of concerns regarding the inclusion of Credit Spread Risk in the Banking Book (CSRBB) in the Pillar 2 framework:

1. The inclusion of CSRBB in regulation nominally addressing IRRBB could lead to confusion, especially if metrics widely understood to capture IRRBB are adapted to include CSRBB. In

the recently published European Banking Authority guidelines on management of IRRBB² CSRBB is defined as a sub-category of market risk and is related to credit spread risk arising from positions measured at fair value. We agree with EBA approach that IRRBB should be covered separately from CSRBB. However, Principle 1 of the BCBS consultation defines CSRBB as any kind of asset spread risk of credit risk instruments. This definition is misleading as it appears to capture the retail and commercial lending portfolios. While CSRBB is transparent and easy to measure on a liquid asset buffer, it is significantly more difficult to establish a direct link between changes in a bank's credit spread and its customer asset pricing. It is likely to be very difficult, if not impossible, to calculate CSRBB on these products.

2. The definition of CSRBB requires significant clarification before it can be meaningfully and unambiguously interpreted. To include CSRBB in the pillar 2 approach within metrics widely understood to capture IRRBB and to report this alongside a standardised IRRBB measure which excludes CSRBB seems to be potentially confusing. CSRBB is already capitalised in part, by the capitalisation of credit spread volatility on AFS assets. This is a pillar 2 add-on and we would suggest refinement of that regulation rather than taking CSRBB wording into regulation intended to address IRRBB.

Regulatory and Public Disclosure

Principle 8 sets out both quantitative and qualitative disclosure to supervisors and the public. The guidelines include requirements to notify the supervisors in advance of any significant changes to internal limit structures, models and methodologies as well as behavioural assumptions. While we are supportive of enhanced supervisory disclosure, we believe that this naturally forms part of the discussions held as part of the SREP under Pillar 2 and should not be required on an ad hoc basis. We would also like to question what the supervisor is expected to do with this ad hoc information, as the volume of information could be significant.

We agree with the notion of an open IRRBB management framework and, within reason, consider that any disclosure which increases public understanding of our IRRBB framework is to be encouraged.

However, we believe enforced public disclosure of quantitative key risk parameters (as mentioned in Table 14, point "k" of the consultation) will by necessity be either too high level, or too granular.

A more granular disclosure, for example prepayment rates by country, may instead produce a surplus of information that will not be easily digested by the public but indeed may be used by competitor banks to calibrate their own models and glean proprietary information.

We are of the view that public disclosures could be standardised across banks to include qualitative information relevant to the internal models applied by the individual firm, size of shock metric, EVE and earnings sensitivity using internal models. Whilst we are supportive of some degree of standardisation of public disclosure requirements this does not include public disclosure of any standardised capital equivalent metric.

² <https://www.eba.europa.eu/documents/10180/1084098/EBA-GL-2015-08+GL+on+the+management+of+interest+rate+risk+.pdf>

The standardised framework as a fall back option

Principles 10 and 12 state that the standardised framework should be used as a fall back for assessing capital requirements for IRRBB. Here we would like to point out that if the standardised framework is wrongly perceived as a valid methodology by external analysts, it would result in a floor on the economic capital. Further, if the standardised metric is not accepted as an accurate metric, it is pointless to disclose it publicly.

Given the issues around the proposed Pillar 1 approach highlighted throughout this response we do not believe that the Pillar 1 approach is a viable fall back option and it would not be an appropriate mechanism to establish comparability across banks nor be suitable as the basis of public disclosures. Instead we believe that an ICAAP approved Pillar 2 approach should stand alone and not incorporate a Pillar 1 approach as a back-stop. For IRRBB, in order to assess the appropriate level of capital a bank should be able to evaluate its own internal capital adequacy through approved internal modelling. In a case where the ICAAP and Pillar 1 approaches result in different outcomes then the danger is that the fall back option creates an inappropriate capital floor.