

EAPB Position Paper on Basel Committee on Banking Supervision Consultative Document on Interest Rate Risk in the Banking Book

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I. About EAPB

The European Association of Public Banks (EAPB) represents the interests of 32 public banks, funding agencies and associations of public banks throughout Europe, which together represent some 93 public financial institutions. The latter have a combined balance sheet total of about EUR 3,500 billion and represent about 190,000 employees, i.e. covering a European market share of approximately 15%.

The range of public and promotional banks' business models as prevalent across EAPB members is wide and heterogeneous with no single best practice model. Among other forms, public and promotional banks as represented in EAPB can be national and regional promotional banks and agencies, municipal finance entities or export credit entities.

National and regional promotional banks and agencies are financial institutions set up by public authorities either at a regional or national level to implement investment projects in the local economy aimed at fostering economic and social development. Municipal finance entities are banks or funding agencies that specialise in providing financial services to municipalities or local and regional authorities. Through their activities, they aim to reduce the cost of capital for local governments. Finally, the export credit entities' main mission is to help finance exports of national goods and services to international markets. As such, they aim to boost domestic exporters' competitiveness in global markets.

II. General Comments

The nature and variety of products, implying a variety of approaches and assumptions to be made around certain products, in the banking book across banks and jurisdictions make standardisation under Pillar I inappropriate. Such a standard should leave scope for adaptations to take account of the different business models that prevail in the financial services sector, even if this in turn would preclude simple comparability. In addition, the restriction of capital arbitrage opportunities between the trading book and the banking book is not yet apparent on account of the diversity of the calculation methods discussed. We therefore assume that capital requirements in Pillar 2 based on individual calculations would provide the best possible cover of institutions' exposures to changes in interest rates.

III. Minimum capital requirements for interest rate risk in the banking book (IRRBB)

1. Criteria and overall structure of the Pillar 1 capital framework for IRRBB

From a credit institutions perspective, the criteria for the development of the standardised approach are understandable. However, it is important to emphasise that often irreconcilable conflicts arise between the objectives. This is especially true of the objectives of risk sensitivity, simplicity and comparability. In view of the very heterogeneous banking market in Europe, it is virtually impossible to define a single standard that is capable of reflecting appropriately and universally the complexities of the different business models in the control of interest rate risks. The attempt to consider different business models necessarily generates modelling complexities. The approach described in this consultative document is already – understandably – highly complex. Nevertheless, there are sustainable business models which are disadvantaged. This is the case, for example, of banks with structurally very stable deposits (5-year upper limit in the modelling) or banks with high equity ratios (since equity capital is not taken into account, a daily fixed interest rate is assumed). Taking into account aspects specific to business models was frequently rejected by the supervisor in the past against the background of growing complexity. In this respect, it is to be feared that specific characteristics are disregarded in this consultation too. However, this leads to the need for business-model-specific assessment of the results in the context of the standard's prudential model assumptions. In this respect, the opinion is not shared that uniform standards lead to full comparability. Although the results are based on comparable methods and procedures, the same results must be assessed individually with regard to how close to reality the prudential assumptions are for the respective business model. In this respect, assertions by the supervisor on the comparability of results from the standard presented here should also be considered more critically by the supervisor. In addition, appropriate consideration of the characteristics specific to the business model should also be included – at least as an objective – since heterogeneous business models are essential to reduce the systemic risks of a financial system (diversification of business models).

In the EU Banking Union, interest rate risks in the banking book are a fundamental component of the prudential assessment of banks within the framework of the supervisory review and evaluation process (SREP). The inclusion of the standard defined here in the SREP should be presented in more detail by the supervisor in the context of the consultation. In particular, a purely quantitative assessment of the interest rate risk (e.g. definition of simple threshold values with blanket stigmatisation/SREP downgrade if exceeded) without taking account of characteristics specific to the business model is viewed very critically. This is particularly applicable against the background of the parallel consideration of present values and interest income. As the European Banking Authority (EBA) also describes in its paper on

the IRRBB, these two considerations cannot be managed simultaneously, which means that there is always a risk in one of them.¹

Assessment of hedge positions using different methods may lead to distortions in the presentation of the risks. According to Figure 1 of the consultative document (page 11), rights of termination should be classified under “not amenable”. If these rights of termination are hedged by swaptions on the other hand, they should be classified under “amenable”. Different evaluation methods would then be applied for the two sides for almost closed positions.

2. Components of an IRRBB standardised approach under Pillar 1

2.1 Cash flow bucketing

To achieve plausible EVE estimates, the definition of cash flows should be consistent with the choice of the discounting curve. In the cash flow definition proposed in the consultation, the spread cash flows are slotted until their contractual maturity. This is inconsistent with the use of a risk free (or *secured* swap curve) as stated in section 3.1. Moreover, the consultation paper proposes to include material spread cash flows only. The criteria for the materiality of spread cash flows should be clarified.

Whilst a sufficiently granular modelling of curve risk is crucial for the desired risk sensitivity of any risk measure, the bucketing approach outlined in chapter 2.1 has several significant disadvantages. With future cash flows migrating from one bucket to the next between measurement dates, cliff effects, i.e. jumps in the calculated risk measure can occur. This would be a particularly significant problem for almost perfectly hedged positions with a very small difference in maturity dates because it might lead to the two components of the hedged position falling into different buckets suggesting a risk which does not actually exist. The only mitigant to this problem is an increased number of buckets which from an operational and modelling point of view is not desirable. Another problem occurs with the calculation of shock scenarios as outlined in chapter 2.2. There, bucket mid-points are implicitly defined as curve pillars, however given the definitions in table 2 those pillars would not be aligned with any liquid, i.e. market standard pillars but require another round of interpolation leading to another layer of operational burden and calculation errors. Furthermore, it is unclear how a shocked curve would be constructed in the “bucket world”. An obvious approach would lead to piecewise constant rate curves with jumps at the bucket boundaries. Such a curve is obviously not suitable for the use in valuation models, e.g. to derive forward rates.

As a solution to these problems we propose the pillar or vertex methodology which is very common in the industry and is also proposed by the Basel Committee on Banking

¹ Please see article in Risk: “Banking Book Blues”, February 2015, page 42f.

Supervision (BCBS) in the context of the Fundamental Review of the Trading Book. Adopting this approach also for IRRBB would thus ensure regulatory consistency. It would also be possible to reduce the number of buckets/vertices from 19 to around 10 without losing a significant amount of information and reference liquid market standard points as outlined in the 2nd consultation paper BCBS 265, page 64, i.e. ¼, ½, 1, 2, 3, 5, 10, 15, 20, 30 years, maybe complemented by an overnight pillar, with linear or pv weighted mapping of cash flows onto the neighboring two vertex points.

In order to consider the differing baseline positions of the institutions, we propose a possibility of choice between cash flow slotting in buckets based on reference points and a calculation on a daily basis.

2.2 Interest rate shock scenario design

The interest rate shock and the use of caps and floors in determining the interest rate shock parameters (section on caps and floors on page 17) are defined so that an interest rate curve is not negative after the application of a shock. To avoid a distortion of the stress test, the downward floor should not be zero, but the minimum of zero and the interest rate.

The formula should be adjusted as follows:

$$\bar{R}_{j,c}(k) = \max\{\bar{R}_c(t_k) + \Delta\tilde{R}_{j,c}(t_k), \min(0, \bar{R}_c(t_k))\}$$

This results in the stress test floor being zero in the case of positive interest rates and the interest rate itself in the case of negative interest rates.

With reference to the definition of the interest rate change in stress $\Delta\tilde{R}_{j,c}(t_k)$, we welcome the inclusion of a cap in the formula. However, in the consultation the applied values of caps and floors are not substantiated. A methodology for the calibration of caps and floors should be present in which the applied assumptions and criteria are explicitly stated. We consider the caps used of 300 bp to 500 bp to be too large. In the past, for example for the EUR interest rate curve, no jumps were observed above such a large change even over a longer period, such as one year. A cap of 200 bp or lower seems distinctly more appropriate here.

In the consultative document, the Committee announced it will consider developing a process for updating and calibrating scenarios. At present such a process has not been developed yet. Therefore, it is not clear whether this process will be sufficient. We assume a regular review and resulting prompt adjustment of the scenarios to be self-evident. Otherwise the risk arises, for example, that transfer of the volatility from the present low interest rate environment to other periods of time gives rise to extremely high and unrealistic shock parameters. This matter could possibly also be resolved by introducing relative and absolute caps and floors.

2.3 Process for slotting and decomposing banking book instruments

In the consultative document, liabilities in the form of equity capital may not be considered in the cash-flow modelling or when determining the interest rate positioning. No reason is given for this. It is understandable that a universal approach may be difficult for the consideration of equity capital in the measurement of interest rate risks. However, non-consideration of equity capital itself represents an implicit model assumption of a daily fixed interest rate for these liabilities. This should at least be explicitly stated and evaluated in prudential terms. On account of the prudential assumption that equity capital falls due on a daily basis, banks with high equity ratios record arithmetically higher interest rate risks than banks with higher leverage. This cannot be the intention under supervisory law. In addition, interest rate risks of banks should be controllable. Interest rate risks arising from equity capital can be mitigated in the prudential model world only through investment of equity capital in products which also have a daily fixed interest rate. However, this leads to daily fluctuations in interest income, which, in terms of an irreconcilable conflict of objectives, results for asset/liability management in an increase in the risks in the earning at risk approach, i.e. eliminating the risk from one point of view results in an increase in the other control system.

Depending on the business model, the investment of equity capital to generate stable interest margins plays a key role. Non-consideration of equity capital discriminates against this form of risk-adverse asset/liability strategy. There should be no blanket penalisation of this type of investment by the regulators. The EBA also considers the investment of equity capital to be standard practice, which should not be either promoted or impaired by the regulators. A conservative approach to equity capital should be permitted on request and with robust justification for the measurement of interest rate risks.

2.4 Treatment of positions amenable to standardisation

Allocation of cash flows in the bucket with the midpoint closest to their contractual maturity leads to a misrepresentation. For example: according to this rule, all positions with a maturity of 10 to 11 years are classified in the bucket 9–10Y, since the maturities are closer to the midpoint of the bucket 9–10Y (9.5Y) than to that of the bucket 10–15Y (12.5Y). This applies systematically for all buckets. In our view, it would be better to slot cash flows in the bucket which includes their maturity. This clarification would become obsolete with the integration of vertex points as opposed to buckets.

2.5 Treatment of non-maturity deposits (NMDs)

Banks have many years of experience in modelling and validating customer deposits with no fixed interest rate and capital tie-up. In this context, a common practice across institutions

is to group products in homogenous clusters which follow the same assumptions on their interest rate development. This clustering is reflected in a bank's sales strategy that also relies on the characteristics of each product, legal considerations, the market environment and the interest rate behaviour. Therefore it is very challenging to find one optimal solution. The deposit volumes within the different clusters are modelled on the basis of historical data which takes into account the speed of building up the deposits, seasonal adjustments, assumptions on future interest rate behaviour and institution-specific expert opinions. The clusters vary across institution and are regularly stress-tested and validated.

The proposed regulatory classification of the two customers group "corporate" and "private" or "transactional" and "non-transactional" within the Time Series Approach (TIA) is considered as insufficient and inadequate, despite of the differentiation between interest rate and liquidity risk. It would imply a significant throwback for the prudential assessment of interest rate risk as well as for the bank's controlling. Moreover, it would impede all efforts made by financial institutions to align different classifications.

Furthermore, we believe that the introduction of an average or even maximum maturity is damaging, as average maturity and fixed interest of deposits are determined individually for every credit institution reflecting the institution's own product policy and assumptions on interest rate behaviour. As a matter of fact, all assumptions made on interest rate are part of a corporate strategy which should not be unduly restricted by regulations. The implementation of fixed provisions would result in a divide between supervisory risk and actual risk and increase the likelihood of mismanagement, since the level of actual risks would not be captured adequately. Consequently, corporate decisions regarding the hedging of interest rate risk or changes in the conditions for obtaining additional deposits would be based on wrong assumptions and cause distortions and volatility in the profit-and-loss account. Therefore, it is imperative that a regulatory framework is designed in a way which allows institutions to continue applying their own well-established procedures and parameters. In addition, there is a risk of not taking customers demand sufficiently into account should capital requirements be imposed on reduced maturities. We believe that the proposed uniform provisions for the classification of positions without fixed interest rate and capital tie-up are not sufficiently considering potential risks and do not display of a correct classification for each institution individually.

We consider the limitations in the establishing of so-called "core" deposits as mentioned in the consultative document as prohibitively high. Even with historically stable deposits, 40% of their volume would be treated as "non-core" and thus would have to be repriced. In addition, the "core" component of the deposits would then have to be modelled for a six years base and thus for a maximal average maturity of three years. This highly restrictive parameterisation contradicts institution-specific, validated models that have been developed

over a long time period and that are able to capture for non-interest bearing deposits long effective fixed interest which is a particularly important aspect for smaller institutions.

The so-called "pass-through rates" i. e. interest rate elasticity, are neither appropriate for modelling interest rate behaviour, nor reflecting interest rate risk cash flow or ensuring tradability.

The definition of retail deposits is currently to be found in the description of the Time Series Approach (TIA). Since, in our opinion, it is also valid for the Simplified TIA, it should be placed in the section above.

2.7 Automatic interest rate options

We request clarification of the last sentence in this section.

3. EVE measure

3.1 Calculation of the EVE measure

In our view, the underlying basis for the EVE calculations is not aligned with the best market practice for interest rate risk measurement. Including spread cash flows while discounting with a risk free rate results in EVE measures that deviate significantly from the more generally accepted EVE measures. This mismatch can result in unjustified punishment of banks which are in fact in control of their interest rate risk.

As already stated in section 2.1, the cash flow definition and the discounting curve should be consistent with each other. Including spread cash flows together with the risk free discounting curve results in an improper representation of interest rate risk. Especially banks which aim for stabilising their interest rate margin are penalised in this method since these stable future interest margins result in EVE risk. This EVE risk subsequently results in higher Pillar I capital requirements, while we think interest rate risk is managed properly if future margins are stabilised. Moreover, the EVE measure proposed in the consultation paper focuses on the variability of the EVE, not on the actual loss.

4. Earnings-based measures and basis risk

4.2 General earnings-based (NII) measure

The consultative document contains no indication of the time horizon. However, without indication of T, the appropriateness of the approach cannot be assessed. Earnings-at-Risk approaches usually show the risks to the profit and loss account for a risk horizon of one

year. Since the value T can have a material impact on the MCR, the choice of T should be sufficiently substantiated. Moreover, the criteria applied for the choice of T should be consistent with those used in the scenario calibration and the EVE measure, since the NII and EVE measures will be combined in the MCR calculation.

With the sum term, the formula contains a sensitivity measure which in practice is not used in this form (i.e. not maturity, basis point sensitivity, etc.) and technically has not been clearly presented. The use of the formula therefore leads to contradictory results compared to Earnings-at-Risk models used internally by banks (and in some cases even to changes in the +/- sign). More detailed theoretical reasons going beyond the information provided in the annexes should therefore be given for the formula and its results and their technical foundation should be explained.

Introducing discounting in the general NII measure is not appropriate in this context. First of all it is inconsistent with the basis risk measures, where no discounting is used (while both are added to come to a total NII). Next to that, this added detail is less relevant compared to the far more rough assumption on new business/future production.

4.3 Basis risk including short-term non-parallel gap risk

In principle, a theoretical basis risk also exists in an Earnings-at-Risk approach. However, it is negligible compared to other types of interest rate risk (e.g. a risk per basis point of the 3/6m basis of EUR 1 million p.a. arises from a EUR 10 billion 3/6m position). Due to lack of materiality (especially for solvency), the basis risk should be disregarded in the standardised approach for simplification.

The reference rate basis risk is determined by summing the amounts between each pair of reference curves of a currency. This means that the more refined an institution's presentation of its basis risks (e.g. different interbank offered rate – IBOR – curves per currency), the greater the basis risk to be shown. However, since the basis risk exists independently of the system presentation, this gives rise to an incentive under supervision law to present the basis risks with as little differentiation as possible. We therefore propose the inclusion of a weighting factor in the sum which takes account of the number of basis curves used per currency and provides an incentive for a more refined presentation of the basis risks. For example, the sum of the formula could serve as numerator and the square of the number of basis curves per currency as denominator in a fraction.

5. Minimum capital requirements

5.1 Specification of the Pillar 1 capital measure

The 'weight' of the EVE measure relative to the NII measures is implicitly chosen by parameters such as the T risk horizon in the NII measure. The choices in these parameters should therefore be made with care, such that this results in the 'right balance'. In order to combine the EVE measure with the NII measure the underlying assumptions and calibrations should be consistent. Moreover, the underlying assumptions should be made explicit. For instance it should be made clear that both measures represent losses or benefits over a consistent time horizon and a consistent risk tolerance. For all options, we ask for clarification that conversion into domestic currency occurs for the sum of the EVE for the different currencies.

In order to construct a prudent but risk sensitive IRRBB measure, both present value and earnings components should be considered and the quite obvious offsetting of present value losses and earnings increases under a rate rise scenario (and vice versa for falling rates) should be factored into the capital allocation calculation. Thus, option 1 lacks sensitivity towards earnings risk. Furthermore it is not clear why losses and gains, respectively, should be added across different currencies whilst the addition of the so derived net loss and net gain incur a very significant disallowance factor. If this approach is further considered, the factor w should be at least close to 1. The same criticism applies to option 2, plus the fact that the capitalisation of the maximum of EVE and NII loss might be prudent but cannot actually be considered risk sensitive, as already noted in the consultation paper. To achieve appropriate risk sensitivity, an approach derived from the idea underlying option 3 should be considered. However, option 3 as proposed shares some of the criticism of options 1 and 2, namely the lacking justification of the disallowance factor w and the capitalisation of the maximum of the risk sensitive measure described by the inner brackets of the formula in chapter 5.4 and the pure earnings based measure. Those two aspects should be dropped. Further thought should be given to the consistency between the offsetting EVE and NII results under potentially different scenarios which might lack the required prudence. An idea might be to not use non-parallel shifts for the original calculation and construct an add-on for EVE risk resulting from changes in the curve shape.

Under the proposed standardised approach, a loss in net present value is determined although it has no direct balance-sheet effects. The loss in net present value calculated is realised only over the entire maturity of the profit and loss account positions. If future net interest income is already positive in the interest rate risk position, this would first be "used up" before a negative result in fact arises. Likewise, a decline in net interest income calculated in fact leads to effective balance-sheet losses only when the interest income currently to be expected has been "used up".

By disregarding future interest income when determining the capital requirements wrong management incentives would be created. The investment of future interest income leads to the imputation of a high net present value risk when interest rates are rising and a high

interest income risk when interest rates are falling. An institution with high future interest income will therefore be “penalised” by higher capital requirements. The imputation system described under section 5.5 (Option 4) of the document is likely to cater for this situation.

Option 4 appears to be the attempt to formulate a very pragmatic yet risk sensitive measure and might work well for some institutions with simple monoline business models. For others however it might prove impossible to implement due to difficulties in isolating NIP and the directly related cost components. From an industry perspective it would therefore be desirable to be able to choose from a simplified approach like option 4 and an advanced approach like the improved option 3 described above.

IV. Review of the IRR Principles and proposal for an enhanced Pillar 2 capital treatment for IRRBB

1. Introduction

We consider many of the specifications described in the Principles to be self-evident and they are experienced as such in the institutions. Nevertheless, the mixing of Pillar 1 and Pillar 2 is viewed critically. Even where Pillar 2 is used, Pillar 1 has to be calculated in full (as fallback and reference value). This represents an incomprehensible expense. Furthermore, no specifications should be made for Pillar 3 in this connection.

3. Principles for banks

Principle 2

It must be clarified that the concept “Board of directors” refers under the two-tier system to the Executive Board and not the Supervisory Board.

Principle 3

The approach of a dual risk definition based on economic value (EVE) and earnings (NII) is comprehensible in principle. However, consideration of (future) earnings or losses in the risk cover amount seems more stringent.

Due to the large number of authors, the regulators’ documents contain a number of different concepts which it is hard to differentiate from one another anymore. It is imperative to harmonise the concepts between all supervisory bodies: for instance, Principle 3 refers to risk appetite statements (RAS) and risk appetite frameworks (RAF). These are also used by the Financial Stability Board (FSB)². In addition, however, the FSB also introduces the concept

² FSB “Thematic Review on Risk Governance”, 2013.

of risk governance framework. In contrast, the EBA's SREP paper uses the concepts of risk appetite framework and strategy (e.g. Chapter 5.6, point 91, page 47).

Principle 4

The concept focuses very strongly on scenario analyses. The number of scenarios is very high: 6+X scenarios per currency, which renders ensuing aggregation essential. Furthermore, individual scenarios are not relevant for certain institutions. Institutions should have the possibility to define themselves out of these scenarios.

Principle 6

Because every risk system has limitations, banks should use a variety of systems to measure risk (from simple to more sophisticated, dynamic). We consider this to be too expensive. Moreover, a mixture of complex and simple methods is required. We assume that simple methods can be dispensed with if the institution can already define the risks very precisely with complex methods. We ask for clarification that a "variety of methods" is called for, not a "variety of systems".

Principle 7

We request the deletion of the term in brackets "(by consolidation level and currency)", since it runs counter to the previous restriction to "relevant levels of aggregation". We can go along with the reporting requirements in Principle 7 but we consider the mandatory inclusion of "findings of consultants" to be inappropriate.

Principle 8

We agree that the results of internal model calculations must be reported to the supervisor. All further assumptions will be kept internally by the institution and made available to the supervisor if necessary. Advance notification of the supervisor of changes to the internal models is totally inappropriate in the context of Pillar 2.

The scope of the "public disclosure" should not be extended to detailed information, but remain more or less at the present level. There is no need for more precise specifications of which information should be disclosed.

The disclosure provisions extend far beyond the present standards. Values are to be disclosed which may differ considerably depending on the respective business model. However, these would provide no information on the quality of the business model.

Principle 9

We ask for clarification that internal capital is not to be specifically allocated to the IRRBB, but where necessary to the market risk for all banking book positions. We therefore propose the following wording: *“Internal capital should specifically address IRRBB as a part of the market risk in the banking book”*. The same applies to the phrase “Quality of internal capital allocated to IRRBB”. Here too we request that IRRBB is addressed only as part of the market risk for positions in the banking book. A separate capital allocation is not appropriate.

4. Principles for supervisors

Principle 10

According to principle 10 supervisors should identify outlier banks by comparing the results of the bank’s internal measurement system and the fall-back standardised approach. Large differences can lead to capital consequences. This can create an unwanted incentive for banks to use the standardised approach in their risk management, even though it does not give an appropriate representation of the actual IRRBB risk for each individual bank.

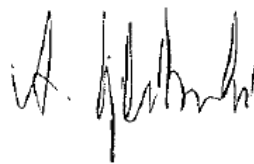
The primary focus of the supervision should be the assessment of the effectiveness of each bank’s approach, instead of the comparison with the standardised approach.

In case of questions please do not hesitate to contact us.

With kind regards,



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