

PRINCIPLES FOR THE MANAGEMENT OF INTEREST RATE RISK IN THE BANKING BOOK (IRRBB)

There are numerous ways through which credit institutions currently identify and measure IRRBB and their methods may reflect the specific form of the risk in question and the nature, scale and complexity of their activities. IRRBB encompasses:

- a. risks related to the timing mismatch in the maturity and re-pricing of assets and liabilities and off-balance sheet short and long term positions (re-pricing risk),
- b. risk arising from changes in the slope and the shape of the yield curve (yield curve risk),
- c. risks arising from hedging exposure to one interest rate with exposure to a rate which re-prices under slightly different conditions (basis risk), and
- d. risks arising from options, including embedded options, e.g consumers redeeming fixed rate products when market rates change (i.e. option risk)

IRRBB 1: Institutions should be able to demonstrate that their internal capital is commensurate with the level of the interest rate risk in their banking book. In that respect, institutions should be able to calculate the potential changes in their economic value resulting from changes in the levels of interest rates, as well as the overall interest rate risk in the banking book.

It is the responsibility of the institutions to develop and use their own methodologies in accordance with their risk profile and risk management policies. The authority may however reserve the right to require institutions to apply an additional standardised methodology, when for example the institution's internal methodology is inadequate or does not exist. An example of such a methodology is provided by the standardised framework of Annex 4 of the Basel document "*Principles for the management and supervision of interest rate risk*". The calculation of the overall IRRBB should be at various levels of consolidation, sub-consolidation and solo entity as may be required by the authority.

IRRBB 2: Institutions must be able to compute and report to the authority the change in their economic value as a result of applying a standard shock (or sudden and unexpected change in interest rates) as may be prescribed by the authority, pursuant to Article 17D(5) of the Banking Act 1994.

The authority's SREP includes the exposure of credit institutions to the interest rate risk arising from non-trading activities. Measures shall be required in the case of institutions whose economic value declines by more than 20% of their own funds as a result of a sudden and unexpected change in interest rates (standard shock – refer to IRRBB 5 below) the size of which shall be prescribed by the authority. In such an event, institutions are required to be prepared to discuss with the authority measures which might need to be taken to mitigate such a potential decline.

IRRBB 3: Besides the standard shock, institutions should be able to measure their exposure, if material, and sensitivity to changes in the shape of the yield curve, changes between different market rates (i.e. basis risk) and changes to assumptions, for example those about customer behaviour.

Institutions should also consider whether a purely static analysis of the impact on their current portfolio of a given shock or shocks should be supplemented by a more dynamic simulation approach. Larger and/or more complex institutions should also take into account scenarios where different interest rate paths are computed and where some of the assumptions (e.g. about behaviour, contribution to risk and balance sheet size and composition) are themselves functions of interest rate levels.

IRRBB 4: Institutions should have a well reasoned, robust and documented policy to address all issues that are important to their individual circumstances.

Without prejudice to the principle of proportionality, examples of such issues include:

- a. The internal definition and boundary between “banking book” / “trading activities”.
- b. The definition of economic value and its consistency with the method used to value assets and liabilities (for example based on the discounted value of future cash flows, on the discounted value of future earnings).
- c. The size and the form of the different shocks to be used for internal calculations.
- d. The use of a dynamic and/or static approach in the application of interest rate shocks.
- e. The treatment of commonly called “pipeline transactions” (including any related hedging).
- f. The aggregation of multicurrency interest rate exposures.
- g. The treatment of basis risk resulting from different interest rate indexes.

- h. The inclusion (or not) of non-interest bearing assets and liabilities of the banking book (including capital and reserves).
- i. The treatment of current and savings accounts (i.e. the maturity attached to exposures without a contractual maturity).
- j. The appropriate consideration of embedded options in assets or liabilities.
- k. The extent to which sensitivities to small shocks can be scaled up linearly without material loss of accuracy (i.e. covering both convexity generally and the nonlinearity of payoff associated with explicit option products).
- l. The degree of granularity employed (e.g. offsets within a time bucket)
- m. Whether all future cash flows or only principal balances are included.

GUIDANCE FOR SUPERVISORS

The authority has deemed appropriate to include in this Annex the guidance for supervisors as issued by CEBS in order to provide licence holders with information as to how the authority intends to review the management of IRRBB by credit institutions.

IRRBB 5: The authority will set a comparable standard shock as referred to in IRRBB 2 above and as applicable to the non-trading book of all relevant institutions.

The authority may decide to set different standard shocks for different currencies. The following guidelines will be put in place:

- A standard shock could, for example, be set so that it will be broadly equivalent to the 1st and 99th percentile of observed interest rate changes (five years of observed one day movements scaled up to a 240 day year), This would currently equate approximately to a parallel 200 basis points shock for major currencies as suggested by the Basel Committee.
- The authority will be using this as the starting point when considering at what level to set the shock, but it would also take into account factors such as the general level of interest rates, the shape of the yield curve and any relevant national characteristics in the context of the local financial system.
- The authority will periodically review the size of the shocks in the light of changing circumstances, in particular the general level of interest rates (for instance periods of very low interest rates) and their volatility. Credit institutions' internal systems should therefore be flexible enough to compute their sensitivity to any standardised

shock that is prescribed. The authority will not, however, make frequent or minor amendments for the purpose of spurious statistical accuracy.

- The authority will discuss periodically the relevance of the 200 basis points as a starting point when considering at what level to set the shock and keep it under review in light of implementation.
- If the required shock (e.g. a 200 basis point shock) would imply negative interest rates or if such a shock would otherwise be considered inappropriate, the authority will adjust the requirements accordingly, and
- Where a credit institution is a subsidiary of a credit institution which is authorised in another EU member state, the respective supervisory authorities will, in accordance with the CEBS guidelines on supervisory cooperation for cross-border banking and investment firm groups, seek to coordinate their approaches on the standard shocks to be applied.

IRRBB 6: The supervisory review should encompass both the qualitative and organisational aspects of interest rate risk management, an evaluation of the institution's quantification of interest rate risk and an assessment of the adequacy of the relationship between interest rate risk and internal capital.

This approach will be tailored to an institution's specific risk profile and will draw on the Basel Committee's supporting document, "*Principles for the Management and Supervision of Interest Rate Risk*".

IRRBB 7: The scope of application of the authority's assessment of interest rate risk is that used for the Supervisory Review Process (SRP)

Where necessary for the fulfilment of statutory objectives, for instance where there are obstacles to cash movements among subsidiaries or separate management processes among subsidiaries, the authority will have the discretion to apply assessments at the level of individual entities.

IRRBB 8: The authority would need to understand the institutions' internal method for calculating the IRR in the banking book, including underlying assumptions (e.g. yield curves used, treatment of optionality).

This will include allowing for the authority to undertake an in-depth analysis and assessments of institutions' internal methods (including institutions' assumptions underlying the issues raised in IRRBB 4 above). This could form the basis for peer group analysis and/or (model) benchmarking, and offer the authority a handle for discussions

with the institution. Institutions may be requested to calculate the effects of specific, ad hoc interest rate scenarios.

IRRBB 9: Prompt prudential measures, including both qualitative and quantitative elements tailored to an institution's specific circumstances, may be required from either the overall supervisory assessment or, as stated in Article 17(D)(5) of the Banking Act 1994, in response to an institution reporting that its economic value may decline by more than 20% of own funds as a result of applying the supervisory standard shock.

The authority will take into account not only the decline in the economic value but also the current level of the economic value. The range of possible supervisory measures could be, but are not limited to:

- improvement of risk management arrangements,
- variations to internal limits,
- reduction of the risk profile, and
- increase in the amount of required regulatory capital.

The measure(s) used in response to the application of the standard shock will depend, *inter alia*, on the complexity of the calculation method used and the appropriateness of the standard shock and the level of the economic value. If the reduction in economic value is determined by a relatively straightforward or standard method of calculation, the initial supervisory reaction might be to request additional, possibly internal, information. If, however, the reduction is based on the outcome of a more complex model about which the supervisors have greater information, they might reach an assessment of the appropriate measure(s) more quickly. In the latter case, the choice of the measure can take into account elements such as:

- the absolute and relative size of the exposure,
- the effects of other shifts or twists in the yield curve (other than the standardised),
- the treatment of multicurrency aggregation,
- the treatment of optionality and behavioural maturity, for example of current and savings accounts,
- the expected impact on earnings and the timing thereof,
- the quality of risk management, the internal systems and methodologies and the internal control system,
- the market segments in which the institution is active,
- the link with other risk exposures of the institution, for example credit risk,

- peer group comparison (and benchmarking where the methodologies are similar),
- the composition of the institution's own funds, and
- the relationship between the quantity of the institution's internal capital and regulatory own funds and the quantity of its actual surplus of regulatory own funds.