

EBF RESPONSE TO THE BASEL COMMITTEE ON BANKING SUPERVISION CONSULTATION ON THE UPDATE TO SUPERVISORY SHOCKS

The European Banking Federation (EBF) welcomes the opportunity to put forward our comments on the Basel Committee on Banking Supervision (BCBS) Consultation Document (CD) on the Recalibration of shocks for Interest Rate Risk in the Banking Book (IRRBB).

The EBF response to the consultation represents the consolidated view from all EBF members i.e., 33 national banking associations from across Europe representing in total about 3,500 banks.

In summary:

- the EBF acknowledges the need to extend the time series used to calibrate the interest rate shocks,
- the EBF supports the change from using relative to absolute shocks to address the limitations in the current methodology,
- the EBF supports the change for currency-specific shock methodology rather than a global shock methodology,
- however, **the EBF urges the BCBS to maintain the confidence level at 99%.**

The proposed recalibration is presented as a "*technical*" update, consisting of the extension of the time series, a change in the methodology (from global relative shocks to local absolute shocks) and the change of the confidence level.

However, it is essential to consider that those supervisory shocks are used for Supervisory Outlier Test (SOT) that are accompanied with fixed thresholds of 15% of Tier One Capital for SOT on Economic Value of Equity (EVE), and 5% of Tier One Capital for SOT on Net Interest Income (NII) in Europe.

The proposed recalibration would affect the jurisdictions that have fully implemented the BCBS Standard with its binding SOT, such as Europe, where the current framework has proven to be adequate.

The switch from the 99.0th to the 99.9th percentile to set the supervisory shocks represents a major change and would result in significant impacts for the (very few) jurisdictions having implemented the BCBS SOT. In the EBF view, such a switch is *not* justified and the 99.0th percentile should definitely be retained.

In the following paragraphs the EBF comments are presented, elaborating on all the above-mentioned aspects and proposing enhancements to the proposal.

We hope our comments are useful in the further assessment of the proposed targeted adjustments to the 2016 standard on IRRBB and remain at your disposal to clarify and/or provide further details on any comment.

GENERAL REMARKS

Before commenting the specifically proposed changes, the EBF would like to point out important aspects that should always be taken into consideration when updating the IRRBB shock scenarios.

- **Impact on Supervisory Outlier Test (SOT)**

The role of the suggested shocks is to be used for the calculation of Supervisory Outlier Test (SOT) on Economic Value of Equity (EVE) and Net Interest Income (NII). It appears quite surprising that the *CD* is fully silent on the impacts that a change in percentile might have on banks' business models and management of interest rate risk in the banking book.

The *SOT EVE* is part of the 2016 *BCBS Standard on IRRBB Management* with a hard coded threshold defined as 15% of Tier One. The *SOT NII* is left to the discretion of each jurisdiction. In Europe, the *SOT NII* is to enter into force by mid-2024 with a hard coded 5% of Tier One threshold.

When subject to *SOTs*, banks shall factor them in their IRRBB management framework which usually leads to adopt even stricter internal thresholds either self-imposed by banks or under the supervisory pressure.

As the thresholds applicable to *SOTs* are locked in binding regulation, there should not be methodological change on the calculation of *SOTs*, notably on the supervisory interest rate shocks to apply.

The role of *SOTs* is to identify potential outlier interest rate exposures. The 15% (and 5%) thresholds have been calibrated to correspond to a small portion of considered banks based on currently applicable supervisory shocks. Increasing the supervisory shocks would mechanically increase the number of banks identified as outlier hence deviating from the threshold calibration method. The number of outlier could also increase due to the non-linear impact of the larger shocks on the behavioural model parameters that are scenario dependent. This would most probably lead to changes in actual IRRBB management, notably to avoid supervisory measures derived from being identified as outlier, without necessarily economic substance in those changes.

Hence, careful considerations should be paid to the ramifications of any change to the percentile of supervisory shocks in a context where the applicable thresholds are fixed. Though Quantitative Impact Studies (QIS) would support such an analysis, there would be a need to adopt through the cycle *QIS*, accompanied with qualitative impact studies to support the quantitative-only impact studies.

As an illustration, the envisaged increase of +25% in the magnitude of supervisory shocks in EUR (± 250 basis points, bps, vs. ± 200 bps) – all other things being equal, i.e. in the absence of *SOT* thresholds recalibration – would basically make the European *SOTs* 25% more binding (it would be equivalent to reducing the threshold to 12% and 4% respectively for the *SOT EVE* and *SOT NII*). Such a change should not be considered as a 'technical' change to supervisory shocks.

It is worth reminding that not all jurisdictions have implemented the BCBS *SOT*. The changes in supervisory shocks would magnify the uneven playing field and penalize banks from jurisdictions having an adequate regulatory framework fully compliant with BCBS principles (including *SOT* with threshold) such as the European one.

Any change in supervisory shocks should be carefully considered with all its potential ramifications and eventually applied only if and when *all* major jurisdictions have implemented SOT with supervisory shocks and applicable thresholds in their locally binding regulation and when the current framework has proven inadequate.

- ***Rate Volatility has Actually Not Increased since the Previous Calibration Period***

There may be a perception that the recent past has evidence an increase in rate volatility.

However, the previous calibration period was between 2000 and 2015 that included interest rate volatility during the Global Financial Crisis (GFC) of 2008-09 that was exceptionally high, even in relation to the most recent 2022-23 period of commonly perceived very high volatility.

Analysis shows that **the recent past has *not* necessarily been more volatile than during the previous calibration period, as evidenced on EUR.**

PROPOSED METHODOLOGICAL CHANGES

In the following section, the EBF would like to comment on the methodological changes proposed by the Committee:

- ***Absolute Shocks vs. Relative Shocks***

As rates have been normalizing after a long period of extremely low or even negative rate environment, the *relative* shock approach that BCBS used to apply fails and would lead to non-sensical shocks. **It makes sense to adopt an *absolute* shock methodology in a normalized interest rates environment.**

However, this change should not be presented as an accommodation as non-sensical relative shocks would be excessively high compared to economically sound absolute shocks. **There is no economic substance in presenting the adoption of absolute shock as an accommodation.** For illustration, when considering EUR, adopting absolute shocks to the previous calibration period (2000-2015), with the 99% confidence interval, would lead to exactly the same shock (± 200 bps parallel shock) as the currently applicable shocks.

As a consequence, the proposal to substitute a 99.9% confidence interval to the 99% confidence interval to offset the accommodative change is simply not founded.

- ***Historical Data not to Extend too Long***

Interest regimes change over time. Basing the supervisory shocks on an observation period from 10-20 years ago while ignoring the most recent period would not be appropriate. The extension of the observation period to include the years 2016-2022 is therefore deemed appropriate considering the prolonged low or negative rate environment occurred after the Global Financial Crisis.

Going forward, the BCBS should consider incorporating a rolling observation window long enough to cover different cycles and not too long to remain relevant. **A rolling window between 15 and 25 years of historical data would be deemed relevant.**

- **Currency-Specific Shocks are deemed more relevant than a Global Shock**

Interest rates differ in terms of volatility and empirical shock sizes between currencies and observable shocks are not necessarily driven by the level of interest rates.

The previous methodology of applying a scaled global shock has therefore led to the over-estimation for currencies with relatively low volatility while it has led to under-estimation of representative shock sizes for currencies exhibiting high volatility.

To adequately capture currency specific volatilities, **it is therefore deemed appropriate to switch to currency specific shocks.**

As a consequence, currencies with a relatively low degree of volatility or simply a relatively high level of interest rates should see their shocks reduced to become more representative while currencies with high volatility or simply a very low level of interest rates should see their shock sizes increase as visible in table 8 of the BCBS consultation paper.

- **Methodology Change from 99% to 99.9% Confidence Interval**

We do not agree with the Committee's reasoning that the change was needed to "maintain sufficient conservatism in the proposed recalibration." The CD does not provide any empirical or even theoretical foundation to substantiate this assertion. It is merely stated that maintaining the 99% confidence level would result in decreased shocks for various currencies which would not be in line with recent interest rate volatility.

While it is true that some shocks would decrease for a number of currencies, we do not see why this would be a problem per se, as:

- The data history for the calibration covers a wider sample that includes either the Global Financial Crisis and more recent interest rate developments.
- Shock decreases in some currencies do not make an across-the-board increase in the confidence level necessary for all currencies in the first place.
- With the new methodology, shocks are currency specific shocks and better represents the actual rate volatility for each currency.
- The decreases occur for non-major currencies that showed a lower volatility. It should be kept in mind that the core purpose of the Committee's standards is to ensure global financial stability. Therefore, they target mainly large, internationally active banks. It is to be assumed that by far the largest share of these banks' IRRBB exposure is in USD, EUR, CNY, JPY and GBP while the share of the currencies that would be applied a lower shock is much smaller. Moreover, the parallel scenario is usually the most relevant one. However, the parallel shocks for the aforementioned currencies would not even experience any shock reductions but instead remain the same or even significantly increase due to a change in percentile. The same holds true for all EUR and GBP shocks. Moreover, many of the shock sizes that would decrease would still remain at a rather high level after all. Decreases compared to the status quo in shocks that have comparatively low relevance for internationally active banks are not per se a justification to increase the confidence level from a financial stability point of view.

- There are several additional layers of conservatism in the SOT framework itself that provide for more than enough prudence, e.g.
 - The use of a 6-month holding period to calibrate overnight shocks accompanied with static/ run-off balance sheet assumptions (c.f. below).
 - Some envisaged shocks have never materialized in the considered historical window, notably non-parallel shocks.

Beyond not being substantiated to offset an '*accommodation*', **the change from 99% to 99.9% confidence interval has several fatal flaws.**

As described in the first section, **it would be a fundamental deviation from the calibration that was used to set in stone the SOT thresholds**: it would be inconsistent to change the methodology of supervisory shocks without recalibrating the SOT thresholds.

The change makes the methodology extremely sensitive to only a very few points, i.e., 5 historical data points and it is exacerbated by the rolling window approach in computing absolute changes. This makes the proposal mathematically flawed and too conservative. The rolling window approach introduces a structural bias as each "data point" is not independent from the previous one and it implicitly weights several times the periods characterized by high volatility that fall in the tail of the distribution. With a sample of 22 years (5,375 data point) a 99.9% is equivalent to take the value of the worst 5th data point. This high confidence level, 99.9%, combined with the rounding might also generates odd cases where the shocked proposed by BCBS is higher than the worst data point observed in the sample.

When considering EUR, the 5 points that lead to a +25% increase in EUR supervisory shocks date back to the 2008 Great Financial Crisis (GFC) for downward interest rates which has nothing to do with the recent increase in rates. This clearly shows that the change in supervisory shocks only boil down to the change in confidence interval.

The more relevant 99% confidence interval identifies c. 53 historical data points that is more statistically founded considering the rolling window approach.

We cannot but highlight that tightening the confidence level to artificially raise the resulting parallel shocks of certain currencies, can exaggerate the increase in the volatility of other currencies and / or non-parallel scenarios. For example, increasing EUR parallel shock from 200 bps to 250 bps (+25%) generates an increase in the EUR non-parallel shocks of +100 bps (+40% short / +100% long). This would generate an overestimation of the risk and a change of the worst-case scenarios profile for many banks, resulting in an increase of the number of outlier banks, with accompanying detrimental impacts.

We urge BCBS to keep the 99% confidence interval in any case.

In the EU the implemented SOTs on EVE and NII are based on the BCBS interest rate shock scenarios. For each SOT, a threshold applies, which may lead to supervisory measures, when crossed, though not automatic. The envisaged increase in confidence interval would result in higher shocks for many currencies, in particular for EUR, and therefore to materially higher SOT results for European banks without any increase in actual interest rate risk exposure. This would mechanically increase the number of outliers. To avoid being an outlier banks' would have to adjust strategies, risk appetite, internal limits, banks profitability and ultimately deploying effects on features and prices

of banks' products. As this could lead to unintended consequences for the banking industry and even the way banking products being offered, this would need to be carefully considered.

- **Non-parallel shocks**

The formulas for rotation shocks that combine independent calibrated short and long shocks, also present in the initial calibration, seem to imply that the BCBS is assuming that short and long rates are not in any way related to each other, which is not consistent with facts and overly conservative. This ignores the statistical evidence of the own calibration data as well as the way of working of the monetary policy and rate signaling of central banks.

As the CD itself identified this as an element for which further investigation is needed, it is expected that the outcome of those needed additional analyses would lead to scenarios that would be statistically backed within the series of rolling six months changes to make sure that they are consistent with facts.

OTHER TOPICS

Independently of the methodological changes proposed in the consultation paper, the EBF would like to point out some further relevant aspects that should be noted.

- **Horizon**

As mentioned above, the 6-month horizon of the shocks represent an element of conservatism embedded in the framework.

Indeed, the shock methodology is based on six months horizon while it is assumed to be applied immediately in the *SOT EVE*, which is extremely conservative. Assuming a Gaussian interest rate diffusion process, the shocks would increase with the square root of the considered horizon.

A 6-month horizon implicitly assumes that the bank does not mitigate its IRRBB exposure for six months, which is not consistent with actual management. However, over a 6-month period, banks would be able to "de-risk" their banking book in a timeframe as short as three months also. This is particular true in major countries with a very liquid derivatives market.

The BCBS acknowledges¹ that banks would normally be able to manage in three months, but a six-month horizon is conservatively chosen to account for possible longer time needed in case of system-wide move in interest rates.

On average the shocks with a three-months holding period would be 50 / 100 bps lower compared to six-month holding period.

Assuming a Gaussian interest rate diffusion process, the shocks would increase with the square root of the considered horizon. To highlight the impact of the six-month assumption, **assuming a management horizon of 3 months would lead to lowering the shocks by a factor of square root of 2** (i.e. a 200 bps shock should be scaled down to 141 bps).

¹ 2015 Consultative document on IRRBB standards.

- **Conclusion for EUR supervisory shocks:**

For EUR, retaining a conservative 6 month horizon with 99% confidence interval and extending historical data to the 2000-2022 period would lead to the following supervisory shocks:

2000-2022 historical data and 99% confidence interval		EUR supervisory shocks in basis point (bp)	
		not rounded	rounded
Type of Shock	Parallel	198	200
	Short	303	300
	Long	157	150

- **Applicable Rounding**

The 50 bps rounding appears too large, not aligned with rounding of central bank policy rate changes. A 25 bps rounding would mitigate the rounding detrimental cliff effect impacts.

For instance, a historical shock of 226 bps would be rounded at 250 bps instead of 200 bps that would apply if the historical shock were just 2 basis points lower e.g. 224 bps. This would correspond to a percentile much higher than the 99.9% and higher than any observation.