
Consultation response

Basel Committee on Banking Supervision – Recalibration of shocks for interest rate risk in the banking book

The Global Financial Markets Association¹ ('GFMA') appreciates the opportunity to respond to the Committee's Consultative Document on the "**Recalibration of shocks for interest rate risk in the banking book**" (referred to hereafter as the "**Consultation**") and to assist the Committee in refining its approach to the management of interest rate risk in the banking book. We summarise below our high-level response to the consultation.

The GFMA represents the common interests of the world's leading financial and capital market participants, to provide a collective voice on matters that support global capital markets. We advocate on policies to address risks that have no borders, regional market developments that impact global capital markets, and policies that promote efficient cross-border capital flows to end-users by efficiently connecting savers and borrowers, benefiting broader global economic growth.

The GFMA brings together three of the world's leading capital markets trade associations to provide a forum for the largest globally active financial and capital market participants to develop standards to improve the coherence and interaction of cross-border financial regulation. We aim to improve the functioning of global capital markets to support global economic growth and to support lending and to serve clients in those jurisdictions they want to do business in.

The Association for Financial Markets in Europe (AFME) in London, Brussels and Frankfurt, the Asia Securities Industry & Financial Markets Association (ASIFMA) in Hong Kong and Singapore, and the Securities Industry and Financial Markets Association (SIFMA) in New York and Washington are, respectively, the European, Asian and North American members of GFMA.

EXECUTIVE SUMMARY

GFMA and its members are supportive of the implementation and maintenance of a thorough and risk sensitive approach to the measurement, management and supervision of Interest Rate Risk in the Banking Book ('IRRBB'). It is essential that this risk is fully understood and properly measured and managed by banks' management and that supervisors are resourced appropriately to provide meaningful and robust challenge where needed.

GFMA and its members consider that some elements in the BCBS consultation represent a timely and well considered revision of the current Basel IRRBB standard, particularly in relation to the proposal to expand the data time series used to calibrate currency level shocks. However, there are aspects of the consultation which need further consideration.

In particular, we have strong reservations against the proposal to increase the confidence level from a 99th to a 99.9th percentile value to determine the shock factor and consider that a stronger justification should be provided for this change given the implications for the Supervisory Outlier Tests (SOTs) and the potential business and capital impacts. We consider that the increase in the confidence level would result in a disproportionate increase to the shocks (more intensified for non-parallel scenarios) which would be

¹ GFMA brings together three financial trade associations, including the Association for Financial Markets in Europe (AFME), the Asia Securities Industry & Financial Markets Association (ASIFMA), and the Securities Industry and Financial Markets Association (SIFMA).

exacerbated further when combined with the current rounding up rule.

As set out below, the outcome of our analysis leads to a logical and clear recommendation for maintaining the confidence threshold at the current 99th percentile level, and applying a rounding threshold to 25 bps in place of the current 50 bps.

SPECIFIC COMMENTS

Policy approach

We acknowledge the need to extend the time series used to calibrate the currency level shocks for each shock scenario to reflect the most recent data. Furthermore, we agree that a change in methodology is essential to address limitations with how the current methodology captures interest rate changes during periods when rates are close to zero. We consider that the Committee's proposal to address this issue through the revision of the methodology used to calculate local shock parameters, involving a move from a relative to an absolute measure, is an appropriate adjustment to cope with normalized levels of interest rates after a long period of low to negative interest rates. Keeping the relative shock approach would not be appropriate, as evidenced by the unrealistic level of shocks this would lead to.

However, in the context of the extension of the time series, it is important to note that particular jurisdictions have exercised discretion over the inclusion of data relating to recent periods of high interest rate volatility, and they have considered exceptional market movements in other risk measures, such as the calculation of the market risk charge in back testing exercises. Therefore, it would be consistent to provide for similar discretion in the updated Basel standard, in particular to allow the exclusion of periods of excessively high volatility.

Adjustment to percentile value

The industry does not see a justification for the Committee's proposal to move from a 99th percentile value to a 99.9th percentile value to determine the shock factor. For any given level of confidence, increasing the timeframe for observations adds more points to the actual distribution and represents the fluctuation and movement of interest rates more fully. Therefore, it does not appear conceptually correct to seek a change in the percentile value to mitigate the effect of the decrease in volatility in the current data.

We also do not agree with the Committee's view that the methodology change is more 'accommodative' thereby justifying the increase in the confidence level. The Association Française de Gestion Actif Passif (AFGAP) has published a note² which shows that the recent increases in interest rates are not an outlier and that the switch from relative to absolute shocks is not in fact less conservative. The analysis is based on statistical analysis of the EUR and USD currencies. In particular, applying the absolute shock methodology with a 99th percentile level to the previous data set (i.e. from 2000 until 2015) would have led to the same or higher shock levels (except for short shock for USD) than if the 2016 BCBS methodology was applied for EUR and USD.

Relating to this point, it is important to highlight that the application of 6 months rates variations' as instantaneous shocks is penalising and should be regarded as the 'conservative' treatment, both for the old and new methodologies. Therefore, we do not support the Committee's view that the methodology change is more 'accommodative' and view this change as a necessary fix.

We also consider that it is important to highlight that the confidence level should be determined in relation to actual tail events. We consider that the application of the current 99th percentile is sufficient in capturing tail risks associated with the 2008 and 2009 stress and that there is no need to increase the confidence level to the 99.9th percentile. Our analysis of EUR and USD data, based on a 16-year time series, reveals that events above the 99th percentile relate to 2008 (for USD) and 2009 (for EUR). Our analysis of the EUR data, based on a 23-year time series, reveals a similar pattern and shows that a 99.3th percentile captures tail risks associated with the 2009 stress, while a 99.9th percentile value, again based on a 23-year time series, also captures the 2009 associated tail risks, although resulting in a greater shock impact. Given that the current confidence level

² Updating the Regulatory Interest Rate Shock Scenario for EUR and USD; AFGAP Technical Paper – January 2024

adequately captures these tail events, we do not consider there is a justification for increasing the confidence level.

Furthermore, it is important to note the proposals will result in significantly higher shocks being applied to certain currencies, but that the Committee is not proposing to adjust the 15% Tier 1 capital calibration of the SOT against which banks' maximum Δ EVE under the six prescribed interest rate shock scenarios is compared. It is therefore concerning and unclear how the proposed adjustment to a 99.9th percentile value would actually impact banks and their constituent business activities. This becomes potentially more critical for jurisdictions where Net Interest Income (NII) SOT has been or may be applied. Considering that the SOTs are accompanied with fixed thresholds, which banks are required to factor into their management of IRRBB, we think it would be inconsistent to change the percentile level of the shocks. Instead, we would propose that logically the calibration of shocks and supervisory limits should move in parallel to ensure consistency between these key elements.

Rounding up rule

We also have concerns that the combination of the shift to a 99.9th percentile value and the current rounding methodology (i.e. to the nearest 50 bps) may amplify shock sizes. The use of a 99.9th percentile already encompasses very extreme scenarios, and given the current rounding methodology for some shock levels, a minor disparity in the shock has the potential to result in either rounding up or down resulting in materially different outcomes, and possibly leading to unrealistic shock values. To reduce the distortion introduced by the rounding methodology, we would welcome a change to the rounding from the current 50bps to the nearest 25bps.

For example, the rounding approach could contribute to a shock increase of 50 bps, even though, for instance in the case of the Euro, the calculated shock is only 1 bp higher than 224 bps. For a Euro parallel scenario, with a 99th percentile confidence level, the shock result would be 198bps which would be proxied at 200bps, while with a 99.9th confidence level, this results in a 228bps shock (which is rounded up to a final shock of 250bps). To highlight this issue, a comparison of the USD and EUR series reveals that the absolute variation between the 99th percentile level on 16 year time series and the 99.9th percentile level on 23 year time series is 34 bps in relation to USD, while it is equal to 26 bps in relation to EUR. Therefore, a higher shock occurs for USD, but even if the EUR shock final level is 10 bps above the USD level, the resulting shock is an increase of 50 bps vs the USD shock.

We consider that the combination of the increased percentile level and the current rounding up threshold would result in a very severe level of conservatism, contrary to the objective expressed in the Basel consultation paper ("to maintain sufficient conservatism in the proposed recalibration"). Therefore, we would recommend maintaining the confidence level at the 99th percentile level and reducing the rounding up threshold to 25 bps instead of the current 50 bps.

Wider calibration

In addition, we consider that the proposal to use a 99.9th percentile confidence level is inconsistent with the calibration used in other Basel frameworks and specifically in FRTB, raising concerns about the overall consistency of the Basel 3.1 framework. In particular, Basel 3.1 allows banks subject to conditions to transfer interest rate risks in the banking book to an internal risk transfer desk in the trading book. In the trading book, interest rate risks are then subject to significantly lower pillar 1 shocks under FRTB. While there is already a difference between IRRBB and FRTB shocks under the current calibration, we are concerned that the proposed calibration increases the disconnect between those frameworks. We consider that some consistency between the IRRBB and FRTB frameworks is crucial to avoid introducing incentives for regulatory arbitrage and to ensure a harmonised approach to risk management.

Potential unintended consequences

It is important that the potential unintended consequences of the proposals are considered, in terms of their impact on banks to mitigate risk, reduce convexity and the optionality of products offered, and the consequent

impact on financing economic activity and investment. The proposed change in confidence level could also drive differences in hedging and risk management activity, with potential implications for systemic risk.

Scope of review

In addition, we consider that the review of the IRRBB standard should also include an assessment of how the supervisory implementation of different floors across jurisdictions impact firms' management systems and operational overheads, with a view to securing greater international consistency around the implementation of the IRRBB standard.

Conclusion

GFMA and its members urge the Committee to reconsider its proposal, particularly the proposed recalibration of the confidence level, in line with our feedback. We consider that it is important that the Committee achieves the right balance between maintaining sufficient conservatism while avoiding an overly-conservative approach to ensure that the interest rate shocks that are applied are proportionate and realistic, and that the capital held is representative of the underlying risks.

Therefore, we strongly recommend that the Committee maintains the confidence level at the current 99th percentile level and adjusts the rounding rule from 50bps to 25bps.

Yours faithfully

A handwritten signature in black ink, appearing to read "Allison Paast". The signature is fluid and cursive, with the first name "Allison" written in a larger, more prominent script than the last name "Paast".

Executive Director

Global Financial Markets Association



Updating the Regulatory Interest Rate Shock Scenario for EUR and USD AFGAP Technical Paper – January 2024

The Association Française de Gestion Actif Passif (AFGAP) is a non-profit association created in 1991 gathering balance sheet management professionals from French financial institutions. It aims to develop the exchanges between Asset and Liability Management (ALM) experts. It also has the mission to train professionals in ALM topics.

This document is the output from technical workshops between experts in statistics and in regulation.

Executive summary

In December 2023 the Basel Committee on Banking Supervision (BCBS) issued a paper proposing a recalibration of shocks for interest rate risk in the banking book. This paper proposes two main evolutions from the 2016 methodology: the use of an absolute interest rate shock instead of a relative shock, the use of a 99.9% percentile instead of 99% to determine the shock severity.

This paper analyses historical data for EUR and USD which are the main currencies for French banks. It **acknowledges the switch to an absolute shock** considering the change of interest rate regime during the dataset horizon. It **rejects the increase of the percentile up to 99.9%** since it appears that the recent interest rate increase is not an outlier and that the switch from a relative to an absolute shock is not less conservative.

As the shock relates to a six-month horizon, it appears inconsistent to assume that it applies *immediately*. **We recommend clarifying that the shock is applied *after* six months.** Without such a clarification, the methodology would not be technically well founded. **Should immediate shocks be elected by the regulator, the shocks that relate to a six months horizon should be scaled *down* to remain consistent.**

I. The BCBS methodology

The proposed methodology consists in calculating a series of six-month percentage absolute shock¹ of interest rates from January 2000 till December 2022. The considered tenors are: 3 months, 6 months, 1 year, 2 years, 5 years, 7 years, 10 years, 15 years and 20 years. Then an average rate change across time buckets is calculated (3M, 6M, 1Y, 2Y, 5Y, 7Y, 10Y, 15Y and 20Y for parallel shock. 3M, 6M, 1Y for short rate shock. 10Y, 15Y and 20Y for long rate shock). The shock equals the 99.9% percentile of the absolute value of the average rate changes.

¹ i.e. $Absolute\ Shock = Rate_t - Rate_{t-1}$

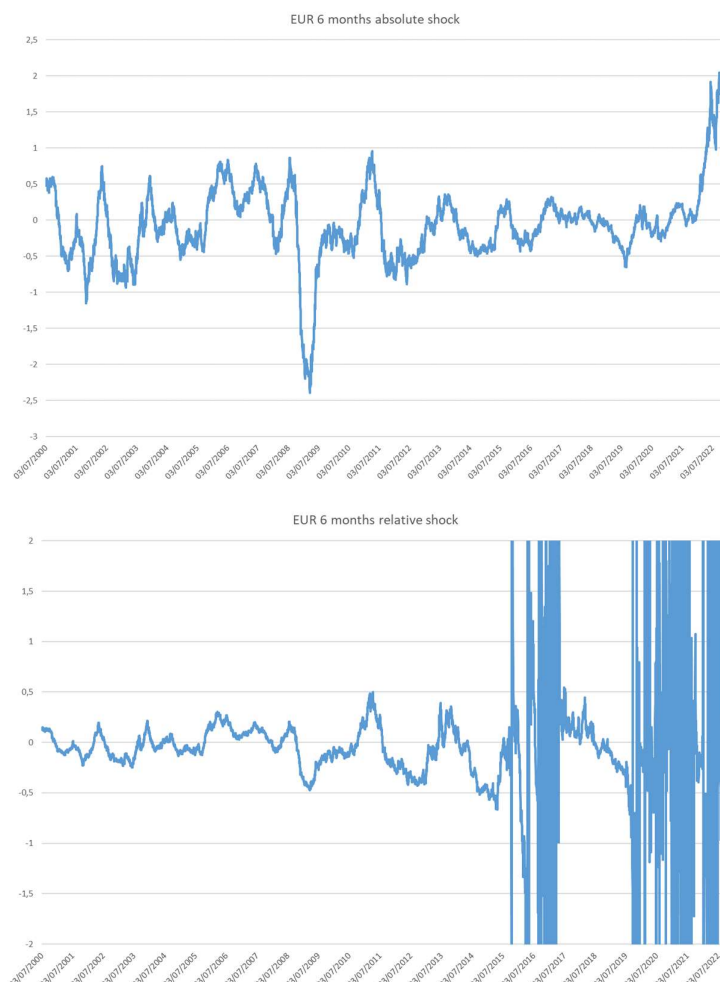
The two main methodological updates compared to the 2016 BCBS methodology are:

- Switch from a relative rate shock² to an absolute rate shock¹.
- Use of a 99.9% probability instead of a 99% probability.

These two points are discussed in parts II and III. The gradualness of the shock is discussed in part IV.

II. Switch from a relative rate shock to an absolute rate shock

The following two graphs show the 6 months absolute and relative shocks for EUR across all buckets since July 2000.



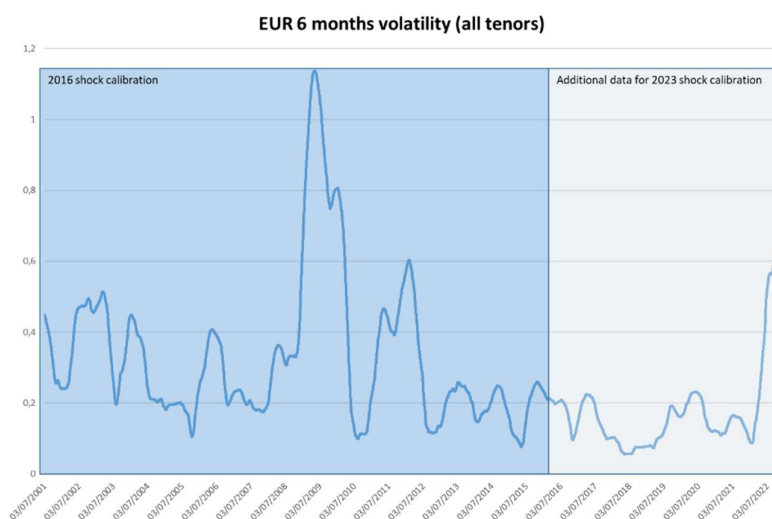
We see that for absolute shocks the level are quite homogeneous during all the time period. This is not the case for relative shocks, reflecting the change to a very low rate of regime in 2016. As mentioned in the BCBS document, it shows that the relative shock methodology is not any more appropriate after 2016. We support this evolution.

² i.e. $Relative\ shock = \frac{Rate_t}{Rate_{t-1}} - 1$

III. Use of a 99.9% probability instead of a 99% probability

The BCBS is arguing that the new methodology is accommodative and that keeping the old probability level would lead to a decrease of shock factors for many jurisdictions despite more volatility in interest rates. We don't agree with this analysis considering that:

- a. The BCBS writes that there is more volatility in interest rates. But for EUR, looking at historical 1 year volatility of the average 6-months absolute shocks across the 9 buckets, shows that the recent volatility level was already reached in the past.



- b. The change of methodology is not accommodative, as shown in the previous section, it is just a switch from a relative to an absolute shock, due to the fact that relative shock is not appropriate for low level interest rates. The other methodology parameters didn't change (6 months rolling shock, nine tenors).

Applying the absolute shock methodology with a 99% probability to the previous date set (i.e. from 2000 till 2015) would have led to the same or higher shock levels (except for short shock for USD) than in the BCBS 2016 methodology for EUR and USD:

	EUR			USD		
	Calculated shock	Rounded shock	BCBS 2016 shock	Calculated shock	Rounded shock	BCBS 2016 shock
Parallel	205	200	200	180	200	200
Short	316	300	250	256	250	300
Long	115	100	100	183	200	150

Extending the data set till 2022 with a 99% probability and an absolute shock shows that the

shock stay stable or increase except for Long USD:

	EUR		USD	
	2023 rounded shock	2016 rounded shock	2023 rounded shock	2016 rounded shock
Parallel	200	200	200	200
Short	300	300	300	250
Long	150	100	150	200

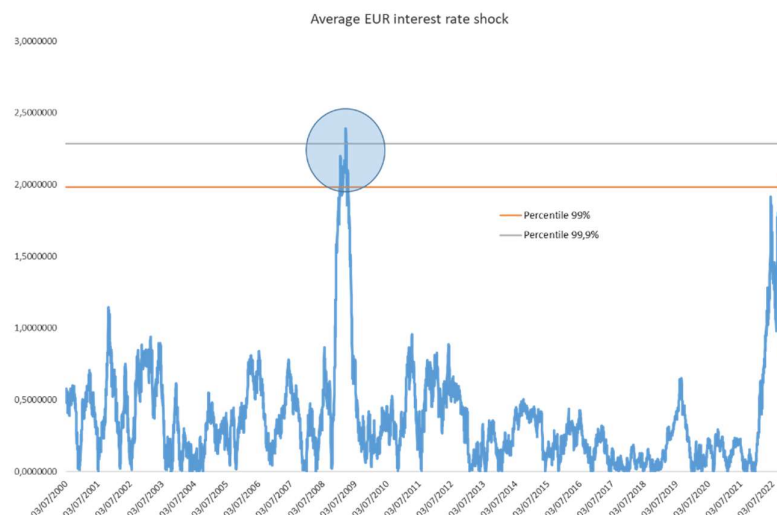
Finally, this is the 99.9% probability level that makes increase the calculated shocks for EUR and USD. Consequently, rounded shocks increase for all EUR shocks and for USD Long shock:

	EUR			
	2023 calculated shock 99% prob.	2023 rounded shock 99% prob.	2023 calculated shock 99,9% prob.	2023 rounded shock 99,9% prob.
Parallel	198	200	228	250
Short	303	300	355	350
Long	157	150	218	200

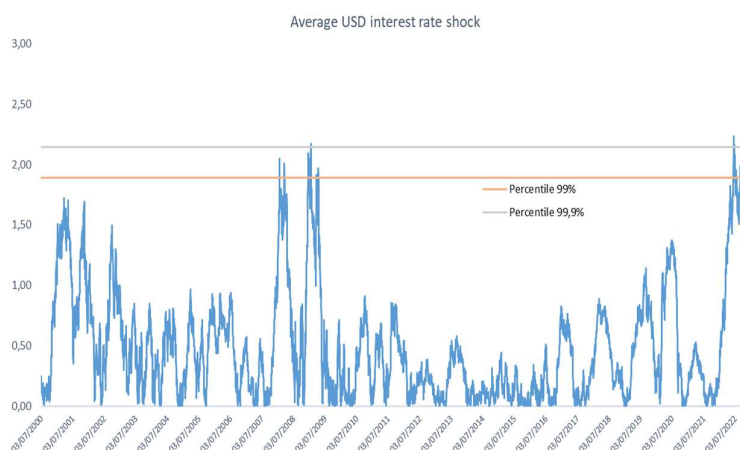
	USD			
	2023 calculated shock 99% prob.	2023 rounded shock 99% prob.	2023 calculated shock 99,9% prob.	2023 rounded shock 99,9% prob.
Parallel	189	200	214	200
Short	280	300	310	300
Long	165	150	235	250

For EUR parallel shock, it is noticeable that the shock increases by 50 bp only because the calculated shock is 3 bp higher than 225 bp.

- c. Since BCBS is using daily data from January 2000 until December 2022 to calculate the 6 months rolling shocks, it leads to a little bit less than 6000 observations. It means that the 99.9% empirical quantile is the worst 6th point of the database. This percentile uncertainty is high. The calculation output is then extremely dependent on very few outlier points.
- d. For EUR, looking at the historical series of the absolute value of the average shock across all buckets shows that the extreme shocks occurred in 2009, not in 2022-2023. The highest shock value of 2022 is only the 41st highest shock. This means that the 250 bp parallel shock is not coming from the recent interest rate increase but from the 2008-2009 period. These rates shocks correspond to the rate decrease during the Global Financial Crisis (GFC).



For USD, in 2008-2009 we already experienced a shock of same magnitude as the recent interest rate increase. This is coherent with the stability of parallel shock between the 2016 and 2023.



So instead of the USD, the EUR is penalized by this new methodology, but only because the interest rates decrease more in 2008-2009.

- e. The Table 8 of the BCBS document shows the shocks for the 2000-2022 period with a 99% probability. The BCBS argues that some of the shocks decrease (compare to the 2016 shock values) due to the fact that the new methodology is more accommodative. But, we see in the table below that 54% of the shocks are unchanged, 22% are increasing and 24% are decreasing³. (knowing that the decreases mainly concern the short shock which is much less impacting the SOT than the parallel shock):

³ The calculation is done for : ARS, AUD, BRL, CAD, CHF, CNY, EUR, GBP, HKD, IDR, INR, JPY, KRW, MXN, RUB, SAR, SEK, SGD, TRY, USD and ZAR.

	Unchanges	Increase	Decrease
Parallel	14	3	4
Short	8	5	8
Long	12	6	3
Total	34	14	15
%	54%	22%	24%

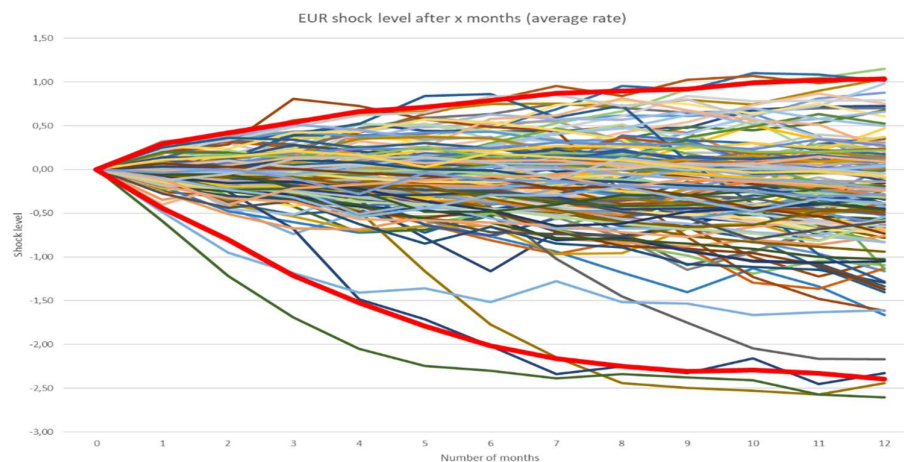
So, it seems not evident that the new methodology is less severe than the former one.

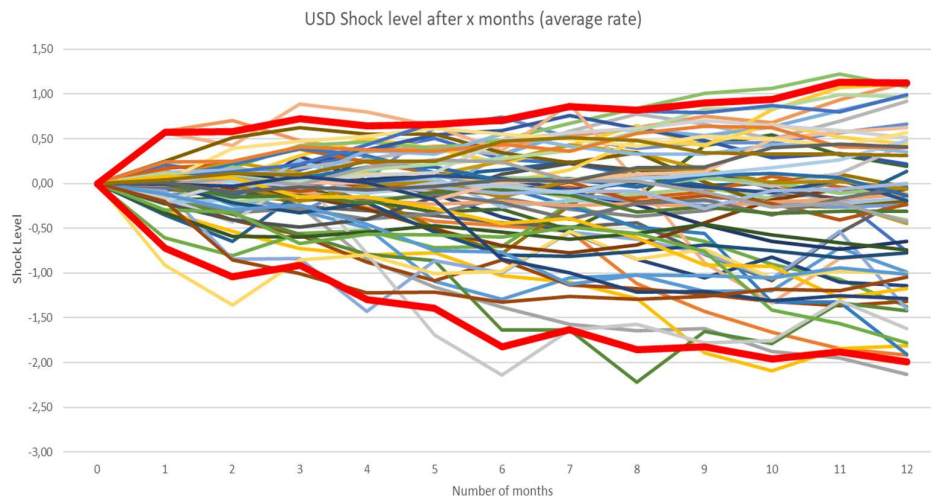
Considering these points, it is not accurate to increase the probability level up to 99.9%.

Gradualness of the shock

The BCBS is considering a sudden and *immediate* shock, which has never occurred immediately in the past.

The following graphs show for EUR and USD the cumulative shock for the average interest rate across all time buckets from month 1 till 12 starting from several historical dates (data set from January 2000 until December 2022). It also gives for each month the 1% and 99% percentile of the cumulative shock (red curves). Considering the 1%/99% percentile, the +200 bp shock level (which corresponds to the parallel shock in EUR and USD in 2016) was not reached before 12 months and the -200 bp was reached *before* 6 months.





In Europe where a Supervisory Outlier Test (SOT) is expected to apply on one year Net Interest Income (NII) and where the same supervisory shock would apply, this clarification should lead to assuming a progressive (e.g. linear) shock over a six months horizon to reach the supervisory shock.

To be consistent, the Supervisory Outlier Test (SOT) on the Economic Value of Equity (EVE) should be clarified as to be calculated at the six months horizon.