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Dear Mr Lund and Mr Tsuiki,

Thank you for providing us with the opportunity to comment on the Basel Committee on Banking Supervision ("the Committee") proposal on Interest Rate Risk in the Banking Book (IRRBB). We fully support the Committee revisiting the principles for the management and supervision of interest rate risk.

We agree with the Committee that the robustness and comparability of risk management and measurement in general can and should be enhanced and believe that improving the robustness, governance and transparency of internal models will restore faith, understanding, and reliability of banks' internal models. Variance in risk management practices and outcomes of internal modelling does not imply that internal models are flawed. The variance reflects genuine differences in banks' risk profiles, their client behaviours and banks' strategy which we believe is a positive sign that models are accurate and risk sensitive. However, we do agree with the Committee that improvements should be made in the management and measurement of IRRBB, but that these improvements are best achieved via the enhancement of the Pillar 2 framework.

Standardisation of management and measurement of IRRBB inappropriate

The Committee proposes to standardise the management and measurement of IRRBB within the Pillar 1 approach. While we agree with the main elements of this approach, the parameters of this framework are not amiable for standardisation. The level of analysis and models required to correctly estimate the risk from traditional banking book exposures such as loans and deposits require an adaptive internal model that allows for the incorporation and reflection of the elements that drive the risk profiles of such balances. We are especially concerned with the impact of the following elements of the Committee's Pillar 1 proposal:

- **Non Maturing Deposits (NMD):** In practice, NMDs vary significantly in their stability as well as in their responsiveness to changes in interest rates for a variety of factors (i.e. client profile and behaviour, pricing strategy, tax incentives). The Committee acknowledges these differences and proposes a representation of NMD's which is seen as a "trade-off between accuracy and simplicity". While the Committee acknowledgement of the diversity in NMD's behavioural characteristics is highly appreciated, the proposed approach of introducing caps and floors on all model parameters is too rudimentary. The proposed limits on stable base volume, pass-through-rate as well as on the maturity of the core amount are overly conservative and will severely confine the banks' ability to adequately model the behavioural interest rate risk of its customer deposits. As a consequence banks will not be able to show a proper representation of the "true" interest rate sensitivity of deposits in their interest rate risk position.
- **Prepayment:** The paper envisions that prepayment rights are always interest rate and scenario driven. In reality there are other factors driving prepayments that are largely insensitive to changes in interest rates. These factors also need to be taken into account to be able to effectively reflect the true behavioural risk of prepayment. As such, we also do not believe that a one-size-fits-all prepayment model can be developed to appropriately reflect the actual risks.
- **Calculation of the Economic Value of Equity (EVE) and Net Interest Income (NII) measure:** We fully support the idea to have an EVE and NII risk indicators in place in order to appropriately manage IRRBB. When it comes to calculation of the EVE measures, we hold the view that banks should be



allowed to calculate the EVE figures derived from their own internal models. The current proposed EVE calculation could be improved, to make the results more meaningful for calculating potential regulatory charges. Regarding the NII calculation, any meaningful figure should be based on a dynamic balance sheet simulation. We understand that the regulator would like to have comparable figures, but the proposal on obtaining the NII figure in our view does not have added value for actual IRRBB management purposes.

- **Calculation of capital requirements:** We agree with the Committee that banks should account for the interest rate risk through the ICAAP/Pillar 2 processes. The key issue is whether capital requirements would be appropriate in the event of decreasing, but still positive earnings. We believe that the Committee would be better placed to focus on potential capital add-ons via management and measurement in a Pillar 2 environment, as oppose to calculating risk charges via a standardised Pillar 1 approach based on EV / NII variability. The focus of any capital add-on would need to be built on loss risks measured via proper modelling.
- **Increasing systemic risk:** In practice, the proposed conservative constraints to all NMD model parameters will severely undermine the earnings-stability of a retail or commercial bank especially in periods of low interest rates. This in turn introduces a systemic risk for the banking industry as its reliance on the movement of rates is materially increased. Standardisation of risk measurement parameters via the capital framework reduces competition and leads to risk concentration through standard pricing. As a consequence equally treated risks could add systemic risk to the banking sector as well as to the real economy.

Impact on profitability of retail and commercial banking

We believe the proposed level of standardisation can result in two key consequences. First, as a result of the reduced effectiveness and need for an internal model to correctly estimate the true economic behaviour of core banking book products, banks will likely optimise their product offering and pricing towards products that provide the most favourable risk/return trade-off under the restrictive standard model. Second, notwithstanding the above, the proposed approach to standardisation will have a profound impact on the future profitability for these banking book products on a stand-alone basis, as either the capital charge for the business will increase, or the profit and loss generated will decrease. Subsequently these changes may impact the banking sectors offerings to retail and corporate clients.

Addressing regulatory concerns in a more balanced manner within the Pillar 2 framework

The Committee recognises that a Pillar 1 approach might lead to a reduction in the level of risk management. Given the likely impact of the current Pillar 1 approach on banks' ability to perform their central role in the retail community and the negative impact on the level of management and measurement of interest rate risk, we support reconsidering the current standardisation and focus of enhancing the Pillar 2 approach, for by example providing guidance on the elements banks should take into account for managing and measuring IRRBB of NMD's.

In the Annexes to this letter, we provide detailed comments on the consultation. Please do not hesitate to contact us if you have questions or wish to discuss these comments further.

Sincerely yours,

Daniel Trinder
Global Head of Regulatory Policy



Annex I: overarching comments

There are two regulatory proposals that are directly related to the IRRBB proposals and need to be taken into account, namely the recently published European Banking Authority (EBA) guidelines on IRRBB and the interlinkages between IRRBB and the latest proposals on the Fundamental Review of the Trading Book (FRTB).

Deutsche Bank support the approach the EBA has taken in their final guidelines on the management of interest rate risk arising from non-trading activities (banking book) as published in May 2015. As the EBA states “ *Responsibility for identifying, measuring, monitoring and controlling IRRBB rests with institutions, and competent authorities will therefore expect institutions develop their own systems and stress tests which are commensurate with their risk profiles and risk management policies.*”

In essence, the approach adopted by the EBA effectively addresses the (supervisory) challenges presented by the management of interest rate risk in the banking book. The guidelines allow for varying degrees of sophistication to be applied depending on the size, nature and level of risk of the institutions. These guidelines and associated principles capture the nature and risk of managing banking books extremely well. The EBA correctly proposes to harmonise certain elements of the framework, while allowing enough flexibility for banks to measure and manage their own risks. For example, one key element that the EBA proposes to standardise is the standard shock scenario. The EBA however propose banks should supplement this with their own assumptions and calculation methodologies.

The restrictions and standardisation proposed in this consultation paper for IRRBB predominantly impacts the risk profile/measurement and therefore the risk management of positions that belong to the banking book, for example retail loans and NMDs. Limitation of capital arbitrage between the boundary of trading book and banking book, following from the FRTB proposals, is however also an important factor to assess within the context of IRRBB. The Committee should however also consider reviewing the IRRBB proposals in relation to the proposal on Internal Risk Transfers within the Fundamental Review to the Trading Book, when reviewing the IRRBB proposal.

Annex 2: Detailed comments

Standardisation of IRRBB not fit for practice through the proposed Pillar 1 approach

The multitude of external factors that banks need to take into account with the management of IRRBB, makes that the management and measurement of interest rate risk most effectively achieved via an internal model approach. This provides the most accurate approach for factoring in the impact of the different legal, fiscal, cultural and behavioural aspects across countries. The proposed standardisation does not take these important factors into account and consequently does not reflect the true interest rate risk, leading to less effective risk management.

The following reasons explain in more detail why standardisation is inappropriate for key elements of the IRRBB proposal.

Proposed modelling standards for NMDs are too conservative (chapter 2.5)

NMDs vary significantly in their stability as well as in their responsiveness to changes in interest rates. While the acknowledgement of the diversity in NMD's behavioural characteristics by the Committee is highly appreciated, the proposed approach introduces caps and floors on all model parameters which are rudimentary. The proposed limits on stable base volume, pass-through-rate, as well as on the maturity of core amount are overly conservative and will confine banks ability to adequately model the behavioural interest rate risk of its customer deposits. As a consequence banks will not be able to show a proper representation of the “true” interest rate sensitivity of deposits in their interest rate risk position. This will lead to a change of hedging requirements or capital charges. The proposal is not able to appropriately capture the true risk of NMD's via standardisation for the following reasons:



- *Stability cap*

The representation of NMDs should focus on an adequate modelling of the interest rate sensitivity and not refer to liquidity aspects like e.g. NSFR and LCR. A stability cap for the base volume is only reasonable to buffer short term volatility of the aggregated NMD balances which aggregate many small single deposits. A link to a liquidity stress test framework is therefore not appropriate as NMD interest risk modelling is a tool to stabilize interest income margins within a going concern view. Time series of deposits volumes we observed for our core portfolios doesn't support the conservative stability caps proposed in the consultative document. The proposed stability caps could lead to a core which is too small, does not reflect the correct interest rate sensitivity of NMDs and thereby would increase the interest income volatility for banks..

- *Pass-through floor*

In general, repricing behaviour of NMD's is an important element which needs to be taken into account in a bank's IRRBB framework for example through a pass-through rate approach. However, standardised pass-through rate floors by client segment will not result in an appropriate estimation of the inherent interest rate risk of NMDs.

To illustrate this consider the focus on retail and wholesale deposits. Regarding a pass-through floor for retail deposits, there are large markets where sight deposits (such as current accounts) are not remunerated at all to the customers, i.e. pass-through rate exactly equals zero over the interest rate cycle. Therefore, a general pass-through floor is inappropriate for retail deposits in order to correctly represent NMDs in a bank's interest rate risk position.

With wholesale deposits, the higher level of sophistication of wholesale vs. retail clients needs to be considered. However, this does not directly impact the repricing behaviour of wholesale NMDs. This is primarily driven by the fact that sophisticated clients invest non-operational or strategic liquidity in non-NMD products (e.g. money market investments) given low NMD returns. NMDs play a vital part though for example in the daily cash management process of clients where, depending on the complexity of the client, large volumes of payments are required to be processed every day. Hence the quality of a bank's NMD offering such as connectivity with client IT systems or system stability has clear priority over return on NMDs.

Therefore, a standardised 50% pass-through rate floor for all stable wholesale NMD's may over or underestimate the inherent interest rate risk significantly. A sophisticated deposit model should distinguish among client and product characteristics in a more detailed way to assess interest rate sensitivity parameters properly for the different product portfolio types.

- *Maturity of core*

The core amount represents the stable and rate insensitive part of the NMDs. To manage the associated inherent interest rate risk, it's essential to assign a maturity in the IRRBB process that hedges the product appropriately over the duration of a full life cycle. From this perspective, the proposed maximum average duration of 3 years as well as the maximum investment tenor of 6 years are inappropriate, and would have adverse implications, i.e. increase earnings volatility through a rate cycle for deposits with a longer inherent duration. Especially for retail banks, decreasing rates is a major risk driver for earnings which needs to be hedged accordingly. Stable volumes with no or very low interest rate sensitivity can generate stable income when modelled with respective long term tenor.

- *Structure of loan business*

In the management of the banking book, stable deposits are a natural source of stable funding that also serves as a hedging source for the loan business of banks. If, as a result of the proposed standardisation, NMD modelling is shortened, this will automatically increase the hedging costs of longer dated loans and lead to higher prices and/or changing product offerings to customers (i.e. less longer-dated loan products).

In summary, the proposals on all NMD model parameters will add up to an aggregated constraint which is likely to severely undermine the earnings-stability of retail and commercial banks, especially



in periods of low interest rates. This, in turn, increases the reliance on the movement of rates is materially increased for banks which in turn materially increases systemic risk.

Prepayment (chapter 2.6)

Interest rate independent prepayment rates

The consultation proposes that the usage of prepayment rights is always interest rate driven. In reality there are other factors driving prepayments that are insensitive to changes in interest rates.

- *Partial prepayment options at mortgages*

A common feature of fixed rate mortgage contracts in Germany is the right to prepay a fixed amount (e.g. 5% of notional) without incurring prepayment penalties. The usage of this right depends mainly on a “natural” aversion of customers against debt. If customers have the means to reduce their debt they will do so irrespectively of the interest rate environment. Even if rates go down a prepayment right of 5% is too small to efficiently refinance this part of the loan with another mortgage, while other kind of loans would be much more expensive. Without refinancing possibility prepayment is therefore a question of liquidity. Conversely, if interest rates go up, due to the aversion to debt and tax reasons customers with free liquidity will still prefer reducing their loan to investing the free liquidity elsewhere. The usage of this option is therefore driven by liquidity irrespectively of the interest rate scenario. Our models currently pick up and model this prepayment behaviour. Using the prepayment assumption based on the interest rate differential would therefore misrepresent risk.

- *Consumer loans*

Consumers have the right to prepay their loans at any time without a prepayment penalty. However, typically, prepayment is driven by refinancing, which is influenced by business campaigns of the banks themselves. Our time series show that this is a constant process with stable percentages over time. Therefore the prepayment assumption based on the interest rate differential will misrepresent risk.

- *Prepayments where the economic cost is charged to the customer*

Even in portfolios where the cost is passed onto customers, prepayments are a regular occurrence for a variety of reasons, such as the sale of a home due to relocation, divorce, unemployment etc. The proposals need to be clear on how these occurrences should be treated. We assume that those prepayments can be modelled in order to show the realistic payback profile of the portfolio without using multipliers in different interest rate scenarios.

Prepayments driven by interest rates for retail loans

Parts of the customer's prepayment rights are executed in relation to the current yield environment. An example would be the call rights German retail customers have on their fixed rate mortgage loans after ten years. For these embedded options, banks should be allowed to have an option pricing model in place instead of estimating the prepayments with the help of the Conditional Prepayment Rate approach outlined in the consultative document. When calibrating the model banks should be allowed to incorporate client behavioural assumptions, as historic time series proof that retail clients don't behave completely economical. Using an option pricing model will reflect the interest risk profile more appropriate and would allow banks to incorporate bought hedges accordingly.

Portfolio cuts

In order to introduce relevant prepayment assumptions a certain sample size is needed. Assumptions on small populations can easily be broken by small amounts of loans. The paper states:

“Banks must carefully consider how these likelihoods will vary not only under the interest rate shock scenario but also at a minimum for loans of different (i) size; (ii) loan-to-value ratio (LTV); (iii) borrower characteristics, including demographics; (iv) contractual interest rates; (v) seasoning; (vi) geographic location; (vii) original (vintage) and remaining maturity; and (viii) other historical factors. With respect to loan prepayment models, a bank's parameters need to be consistent and reasonable for each interest rate shock scenario used.”



Portfolios should be clustered due to their prepayment characteristics which may but not necessarily have to include some or all of the above given points. For a typical retail portfolio, not using these clustering's loses key portfolio behaviour information leading to suboptimal outcomes.

In conclusion, banks' models already incorporate the interest rate dependency on prepayment rates and where applicable hedge their banking book positions appropriately. This is also reflected in bank's pricing and risk management methodologies. Adding standardised factors would artificially inflate the risk position without enhancing the information to the management and measurement of interest rate risk.

Calculation of the EVE measure (chapter 3)

We strongly support the idea to have an EVE and NII measure in place in order to manage IRRBB appropriately. The way the EVE calculation is currently designed should be improved in two important areas as these lead to outcomes which would be inappropriate to base the calculation of the potential regulatory charges on.

- (1) Banks are required to deliver cash flows which the regulator proposes are used as a basis to calculate EVE. Sophisticated banks manage their business based on sensitivities which reflect the tenor structure more accurately than the proposed cash flow slotting approach, especially for the tenors on the long end of the curve, for non-linear products (e.g. embedded options) and for basis risks. Setting up appropriate infrastructure to report notional repricing cash flows as defined in the consultative document will generate outcomes without any benefit to the current practice and more importantly lead to a loss of accuracy in risk measures.
- (2) The inclusion of external interest rates in the cash flow approach. We support calculating the EVE by using a 'risk free' discounting curve, but the concept should exclude margin components on the notional repricing cash flows¹.

We understand that risk measurement based on external interest rates including margin components appears desirable from a regulatory perspective since external interest rates are readily available without further calculations based on internal approaches. This would also be easier for smaller banks and would make comparability across banks easier. However, comparability could be misleading for a number of reasons.

With a retail mortgage loan, the margin component represents recovery ratios, personal and other costs as well as earnings aspiration. Therefore, the margin can vary from bank to bank and it is correlated with business strategies and pricing power of the bank as well as competitive environment. The credit risk attached to these loans is captured within the credit management processes and is already capitalised under Pillar I.

To manage IRRBB for these retail products a number of banks have set up an EVE measurement based on the concept of internal rates. In order to indemnify the business segments from interest rate risk, the banking book risk manager quotes transfer prices at which customer business is from a product area point of view refinanced congruously. The difference between the customer rate and the transfer pricing rate is the margin which is constant over the fixed interest rate period and not part of sensitivity calculation as it covers accrual items like cost and revenue elements.

The positions based on transfer pricing rates are part of the banking book where the interest rate risk arising is measured and hedged. The product area on the other hand is managed through NII. The stable income stream of the margin over time is earned to cover evenly stable cost components as well as earnings aspiration. By calculating the IRRBB based on transfer pricing rates the risk is measured in the way how IRRBB should be measured and hedged to ensure a stable income over time.

Calculating the IRRBB on external rates would require a fully dynamic balance sheet analysis and hence therefore include margins. This approach has some drawbacks:

¹ See 2.1 of the consultative document



- Inclusion of margin in IRRBB calculation would require inclusion of other factors (loan losses, personal and other cost as well as earnings aspirations) to give an accurate account. It is hard to conceptualise how these components can be standardised.
- A perfectly hedged position (e.g. a 10 year bullet loan hedged with a 10 year bullet deposit) would nevertheless lead to disclosure of an open interest rate risk position without an actual loss risk.
- A healthy bank with high margins would appear healthier than a bank with low margins.
- Future margins would create capital charges without increasing current capital supply² (=> asymmetrical treatment, a consistent approach would require the capitalization of margins).
- 'Hedging' the margin position would reduce earnings and introduce earnings volatility.
- The measurement of interest rate risk would not be synchronised with the way interest rate risk is being measured and hedged within more sophisticated banks.

To provide some more insight into the calculation of the EVE using internal systems or external rates we have inserted an example below. The simplified example shows the different outcomes based on using external vs. internal rates.

Simplified example

	Asset Side	Liability Side
Product	mortgage portfolio	term deposit portfolio
Volume	€ 500 mn	€500 mn
Maturity	5y bullet	5y bullet
External rate:	3%	1%
Internal Transfer price (market rate)	2%	2%

From a banking book perspective based on transfer prices this leads to the following cash flows:

	Asset			Liability		
	Notional cashflow	Transfer price cashflow		Notional cashflow	Transfer price cashflow	Risk Position
1y		10			-10	0
2y		10			-10	0
3y		10			-10	0
4y		10			-10	0
5y	500	10		-500	-10	0

The position is closed; EVE calculation under shock will not lead to capital charge.

Based however on external rates thereby including margins it leads to the following cash flows:

	Asset			Liability		
	Notional cashflow	External rate cashflow		Notional cashflow	External rate cashflow	Risk Position
1y		15			-5	10
2y		15			-5	10
3y		15			-5	10
4y		15			-5	10
5y	500	15		-500	-5	10

A perfectly hedged position therefore leads to an artificial 'open position' with approximately €15 mn PV01³.

² In chapter 3.2 of the consultative document it is outlined that embedded gains will not be part of the capital base. We support reduction of complexity of the framework here but at the same time the concept needs then to be based on internal rates.



External rates should only be applied as a fallback solution for banks which are not able to distinguish between the different risk elements. Banks that have already more sophisticated risk measurement systems in place should be allowed to calculate EVE based on their internal systems whereas smaller banks can use the simplified cash flow approach. Appropriate internal model governance and review by the regulator needs to be in place irrespective of the approach taken.

Calculation of capital requirements (chapter 5)

We agree that banks should account for the interest rate risk through the ICAAP/Pillar 2 processes. However, taking a step back it is worth considering whether the imposition of capital requirements are appropriate to be linked to changes in earnings, especially in the event of decreasing, but still positive earnings. We believe that the Committee would be better placed to focus on the management and measurement in a Pillar 2 environment, as oppose to calculating risk charges via a standardised Pillar 1 approach based on EV / NII variability. Focus of any capital requirement would be better off linked to on loss risks measured via proper modelling.

How would the Pillar 1 proposal impact banks?

As illustrated throughout our overall response, we strongly believe that a standardised approach through a Pillar 1 capital requirement will set the wrong incentives for banks and give rise to unintended consequences. The proposed level of standardisation may result in the following two consequences:

- Due to the reduced effectiveness and need for an internal model to correctly estimate the true economic behaviour of core banking book products, banks are likely to optimise their product offering and pricing towards products that provide the most favourable risk/return trade-off under the restrictive standard model; and
- Notwithstanding the above, the proposed approach to standardisation will have a profound impact on the future profitability for these banking book products on a stand-alone basis.

These consequences, when considered in the context of banks having minimum return on equity objectives, will have two possible outcomes:

- Banks could maintain existing internal models and meet the additional capital impact through changes in product pricing; or
- Alter their portfolio composition to optimise the regulatory capital impact rather than optimising return on equity. This would likely result in banks seeking to meet increase return on equity targets in other product areas

Either option would likely see banks passing on increased capital costs to consumers through repricing of products offered.

Additionally, banks will be forced to follow standardised management approaches without distinctive benefits of bank's competitive advantages. In particularly during periods of low interest rates, this may introduce systemic risk into banking as its reliance on the movement of rates is materially increased. Standardisation of risk measurement parameters via the capital framework reduces competition and leads to risk concentration through standard pricing. This may also have further consequences for systemic risk.

Banks also need to look at impact on hedging practices, as the proposals will lead to additional hedging required for the management of the overall banking book positions. Due to the significant shortening of duration for deposits, these can no longer be used as a net-offset against the longer duration of, for example, mortgage portfolios. As a result, there will be a requirement to rebalance the overall banking book positions both in duration as well as volumes. In other words, NMD modelling usually fits the balance sheet structure as banks are competing for high quality, stable client businesses. In a retail book with long dated

³ Present value change if interest change by 1 bp



loans this leads historically to longer modelling than envisioned in the BCBS proposal. As modelled deposits cannot be used in hedge accounting, hedging 6yr modelling with derivatives would lead to high earnings volatility under IFRS and US GAAP. To accommodate this new modelling approach, customer loans will have to be shortened accordingly, reducing the available amount of loans with a long fixed interest rate term and increase pricing. This will reduce customer choice in lending offerings.

All aggregate the proposed level of standardisation does not just to have a profound impact on the institutions running banking books, but also the clients utilising these product offerings. These rules will target a very stable area of the banks' business activities that are vital in supporting the overall economy through lending activities and providing financial services such as payment, clearing and savings options. The level of standardisation we expect will also result into a level of standardisation in the product offering of banks, effectively limiting the options for products and pricing currently driving the competitiveness and choice for our customers.

2. Suggested improvements for the Pillar 2 framework

We support enhancing the transparency and comparability of IRRBB and believe this could be done by improving the principles of the Pillar 2 framework. The principles can be extended to provide further guidance on how to manage IRRBB.

- Principle 1: CSRBB

This principle requires credit spread risk in the banking book to be an integral part of the IRRBB; credit spread is defined here as spread risk that is not explained by general interest rate risk or by expected jump to default risk. In line with the comment on the connection between the credit spread risk and default risk already mentioned for retail mortgage loans, there is significant double-counting between credit risk that captures migration and default risk and market risk capturing the credit spread risk. The double counting is relevant for all positions across trading and banking book and is generally difficult to quantify directly. However, the issue is particularly pronounced for the accrual positions that are typically held until maturity where the main risk is of migration and default type.

Credit spread risk should not be capitalised on top of the credit default and migration risk for the accrual positions at all from the economic loss perspective. The SREP Guideline published by the EBA focusing on the Credit Spread risk for the Fair Value Banking Book positions closely relates to the bank's view that only these credit spread risks in the banking book are relevant from the economic perspective. To properly reflect this in the EVE measure, the notional repricing cash flows should exclude the credit spread component and be discounted with a risk free curve afterwards.

- Principle 4: Stress scenarios

Whilst we agree with the principles set-forth that the measurement of IRRBB should be based on outcomes for both EV and earnings, we would like to clarify that where at a minimum it is required to have both internal scenarios and the six scenarios as set-forth in Section II, it is not expected that all these scenarios are required to be dynamically measured for earnings purposes. In order to produce meaningful dynamic earnings forecast, taking into account changes in balance sheet, client behaviour and pricing elements, we believe this to be an exercise that should not be repeated too often to ensure its effectiveness in the steering of the banking book. Typically, the majority of banking book products and businesses are of a stable nature, and a full review of a dynamic earnings simulation is typically done as part of a strategic planning exercise. The description of the principle gives rise to the possible interpretation that going forward, it will be expected that this is required to be performed on an ongoing basis, which we do not believe to be feasible or helpful.

- Principle 5: Include further guidance on modelling of NMD's

When management and measuring NMDs banks could take additional elements into account for their modeling process which could be included in the scope of principle 5. This should provide supervisors with more tangible elements to compare and benchmark banks internal model processes. These elements are:

- pass through rate: defines the sensitivity of the customer rate to market rates movement and therefore the core amount available for long term modeling.



- short term stability: defines the intra-month/quarter volatility and therefore gives the necessary buffer to cover short term volume movements.
- long term stability: defines the time horizon the volume is available thereby defining the maximum modeling tenor.

To derive the parameters banks should furthermore look at:

- time series (volume as well as customer rates): in a normal interest rate environment customer rate time series will give insight how sensitive customer markets are to changes in market rates. Volume time series can show how stable the customer volume is over time.
- Size buckets: as partially reflected already in the consultation paper larger volume carry on average a higher sensitivity than lower volumes. Especially in the current interest rate environment large volumes might accrete on low interest rate products as there are currently no alternatives.
- pricing strategy: For remunerated deposits it is important to look at the pricing strategy. A product positioned as being interest rate leader will be much more sensitive to changes in market rates than a plain vanilla product.
- Competitive environment: In certain markets certain products are priced with very small margins. The more competitive a market in a certain product the higher again the sensitivity to changes in market rates; and
- Judgment (especially in the current interest rate environment): Due to the persisting low interest rates the analysis of historical time series becomes increasingly challenging for the measurement of customer behavior in a scenario of rising rates. Taking into accounts the above mentioned points you therefore need expert judgment to derive the sensitivity.

- Principle 8:

We fully agree that banks should report the results of their internal models for quantification of IRRBB, in terms of impact on both EV and earnings to their supervisors. Banks should also report all material assumptions that are made in arriving at their internal estimates of risk. Reporting of this kind of information should provide supervisors with a better understanding of banks IRRBB models. This would also allow supervisors to make better comparisons of internal models across banks.

We do have some questions on how and when banks should notify “any significant” change to their supervisor “in advance”. It would be useful to understand what “any significant” change would entail and, more importantly, if this means that banks would require supervisory approval in advance on these changes. Changes in the management and measurement of a banks’ IRRBB should be within the regular SREP process to allow banks to take management decisions on limit structures and interest rate positioning.

We understand the Committees desire to provide the banks wider stakeholders with more publicly available information, through the disclosure of tables 14 and 15. While we support greater disclosure of information on IRRBB modelling, we question whether this should be done via the prescribed templates. The information requested in these templates leads to a detailed insight in the way how banks manage core parts of their balance sheet to the market and competitors which is proprietary.

Sections of the more qualitative disclosure should include describing the governance framework, around limit setting, the senior management definition of risk appetite and IRRBB management targets. Quantitative disclosure can be provided on to the outcome of the EVE scenarios on the basis of the steady and steady +/- 200bps scenarios. When publishing these outcomes it should be made clear that the presumption is not automatically that they attract an additional capital charge.

- Principle 10:

This principle prescribes that supervisors should obtain information from banks on a regular basis to facilitate monitoring of banks’ IRRBB exposures, to ensure consistent implementation in the review of the soundness of the IMS and to improve comparability of measures across banks. We support this principle. Banks could provide the qualitative information requested in template 14. It isn’t clear however that supervisors would be better informed of the sensitivity of the banks’ EV and NII measure by relating these to the common metric provided by the Pillar 1 framework by the rest of template 14 and 15. If anything,



these metrics may provide a false sense of comparability, given that the Pillar 1 requirements do not take into account the firms specific circumstances.

An alternative solution might be to use the standard outlier test (SOT) as a benchmark set out in principle 12. The outcome of the SOT could then be used by the supervisors as an early warning indicator triggering potential further risk assessments against the background of the review of principle 11. If supervisors are not convinced by the explanations provided by the banks within the ICAAP/SREP process, then they could decide to impose an add-on on a banks Pillar 2 capital.

Furthermore we would propose the Committee to task the Enhanced Disclosure Task Force with the designing an appropriate disclosure framework useful for all stakeholders involved.

- Principle 12:

We support the use of a standard outlier test as a static measurement method that allows for outliers to be identified. This test should focus on a straight-forward approach without any form of dynamic modelling and simply be calculated on the basis of open risk exposures at a specific point in time. We do believe that the current proposal for a standard outlier test could be enhanced for this purpose, as it already abides by these principles. Furthermore, any open risk or change in reported EVE metrics should subsequently gives rise to bilateral conversations between supervisors and institutions. We suggest that the following elements are used in the standard outlier test:

- Methodology based on EVE only.
- Risk sensitivities to be used excluding capital.
- All repricing sensitivities are based on contractual profile, on the basis of internal rates for linear risk exposures, with the exceptions of modelled NMD's and prepayments on mortgages using the bank's internal model.
- Limited shock scenarios for just +/- 200 bps, floored at 0%, as the results of the EVE tests needs to be managed actively as these are the basis of public disclosures.
- Ability to show EVE shock by currency and entity.
- Discount curve: risk free without any spread component.