

Comments on the Consultative Document: *Interest Rate Risk in the Banking Book* issued by the Basel Committee on Banking Supervision

Japanese Bankers Association

We, the Japanese Bankers Association (“JBA”), would like to express our gratitude for this opportunity to comment on the consultative document: *Interest Rate Risk in the Banking Book* issued by the Basel Committee on Banking Supervision (“BCBS”) and also for the BCBS’s prudent approach to propose two options taking into consideration that there are various opinions concerning adequate management and monitoring approaches for interest rate risk in the banking book (“IRRBB”).

We respectfully expect that the following comments will contribute to your further discussion.

[General Comment]

IRRBB is most appropriately managed in Pillar2 framework by using internal models.

The approach proposed in this Consultative Document to mechanically impose Pillar 1 capital requirements would not enable appropriate management of IRRBB that is commensurate with different risk profiles across jurisdictions and banks. Further, even if internal models are used, applying Pillar 1 framework would not be an appropriate approach because such approach may undermine the banks’ functions of financing and maturity transformation. Additionally, given that the balance sheet structure, asset and liability management operation and customer behaviour differ across jurisdictions and banks, it is more appropriate to manage IRRBB based on internal models that is commensurate with each bank’s risk profile and the regulatory framework to take a “one-size-fits-all” approach using the standardised approach is not appropriate.

Adequate methods and processes for managing and monitoring IRRBB vary considerably because individual banks have significantly different risk profiles depending on the stability of the deposit base and/or by the level of deposit/loan balance¹. Given this, Japan has established an effective framework under Pillar 2 whereby banks measure interest rate risk exposure using various interest rate shock scenarios based on their respective risk profiles, supervisors assess banks capital adequacy and, if bank is assessed as inadequate, supervisors instruct banks to take corrective measures. In fact, in

¹ The deposit/loan balance of “banks, etc.” in Japan (e.g., Japanese banks, foreign banks in Japan, financial institutions for agriculture, forestry and fisheries and financial institutions for small and medium sized companies) demonstrates a significant excess of deposits. (Balances as of March 31, 2015: JPY706 trillion of Loans and 1,323 trillion of Deposits) (Source: Flow of Funds published by the Bank of Japan)

light of recent global environment of low interest rates and the importance of IRRBB management has been increasing, Japanese banks are securing adequate capital in preparation for an increase in interest rates under the Pillar 2 framework by adopting prudent internal risk management framework and by conducting various stress testing appropriate to each bank's business characteristics.

Since IRRBB, similarly to credit risk, is a risk that is closely and widely related to entire financial transactions, if the BCBS intends to impose IRRBB-related regulation on a globally harmonized basis, it is important to give consideration to such regulation from macroprudential perspectives by carefully identifying social and economical impacts, including impacts on banks' customers and on bond markets. Careful discussions are required by taking into consideration the interplay between the various regulations so that the Consultative Document does not adversely affect banks' business models, the real economy and customers, etc. in a way regulators have not intended.

1. Pillar 1 capital requirement should not be applied to IRRBB

Mechanically imposing Pillar 1 capital requirements would not enable appropriate management of IRRBB that is commensurate with different risk profiles across jurisdictions and banks. Further, even if internal models are used, applying Pillar 1 framework would not be an appropriate approach because, as discussed below, it may jeopardize the banks' functions of financing and maturity transformation.

(1) Impact on functions of financing and maturity transformation, and impact on customers

Banks assume important economic roles through the banking book, i.e. financing and maturity transformation. Specifically, through the banking book, banks extend funded deposits, which are mainly short term, to finance capital investment by companies, etc. on a long-term basis. This stable and smooth financing and maturity transformation are indeed the primary function of banks. Commercial banks, in particular, are expected to provide a reliable cash settlement function and to be a safe and secure deposit holder, while at same time, supported by a stable deposit base and through the banking book, expected to provide funds for social infrastructure development and long term loans such as mortgage loans on an ongoing basis.

Imposing a Pillar 1 capital requirement for IRRBB similarly to the trading book would force banks to build up capital at an overly conservative level. This may considerably limit the primary function of the banking book which positions are expected to be maintained even under stressed conditions, and hence an incentive to control capital requirements by reducing assets with agility in times of stress may increase also for the banking book. In particular, commercial banks that have assumed more actively the role to serve as a maturity transformation function backed by stable retail deposits are more likely to be required to build up additional capital. Taking into consideration the fact that many of such commercial banks assume the function for providing loans to SMEs, it is our

concern that the Pillar 1 treatment for IRRBB, if adopted, may become a constraining factor for such banks to limit financing to SMEs, causing a serious impact on the real economy.

Further, the introduction of the Pillar 1 treatment will incentivise banks to shorten the duration of assets held and lengthen the duration of liabilities. As a result, due to a decrease in profits from assets and an increase in funding cost, it is assumed that bank earnings (net interest income) will decline and banks may pass costs to customers by, for example, increasing costs for interest rate derivatives or decreasing deposit rates in order to cover such decrease in bank earnings.

Moreover, although the Consultative Document specifies that one of the reasons for the proposed changes is to limit incentives for regulatory arbitrage between the trading book and the banking book, the likelihood of such capital arbitrage is significantly minimised through the fundamental review of the trading book. Therefore, we would like to stress that this reason would not justify the reason to apply Pillar 1 treatment for IRRBB.

(2) Impact on financial markets and increase of cyclicalities

If the Pillar 1 treatment is introduced to the IRRBB, banks could be required to rebalance its portfolio based on assumptions that deviate from the real economy as well as to automatically impose the overly conservative capital as a result of applying caps and floors on parameters as well as on interest rate scenario assumptions in calculating Pillar 1 capital requirements. This will result in, for example, market distortion that is attributable to incentives for holding short-term bonds and disincentives for holding long-term bonds, an increase in cyclicalities that is attributable to uniform bank behavior, and further decline in liquidity in the bond market. It is our concern that these may give rise to disadvantages to or a negative impact on market participants (both issuers and investors) because these situations would impede issuance of corporate bonds in the long-term bond market or changing of portfolio composition in an flexible and efficient manner. Moreover, if the standardised Pillar 1 approach is uniformly applied to all banks, a risk that bank's business strategies would converged to the same direction will increase, which further aggravates the market distortion and increase cyclicalities.

Essentially, market transactions are expected to be executed even in stressed conditions because risk appetite (risk tolerance) varies depending on entities. However, if automatic loss-cut rules based on common indicators are imposed, it will prompt all banks to dispose of long-term assets at the same time in order to reduce interest rate risk when interest rates increase, and thus, the increase in interest rates and cyclicalities will be further amplified, aggravating the market turmoil.

Further, as a result of banks' appetite for taking interest rate risk being constrained, non-banks that are not subject to prudent financial supervision, i.e. so-called shadow banking entities, may take over the function of banks, which may result in accumulation of unintended systemic risk. In those jurisdictions where the market-based finance alternative to banks is not fully matured, there are

concerns over not only a negative impact on customers but also an increase in the weakness of financial markets to amplify because, for example, customers do not have sufficient alternative funding options and market participants cannot meet counterparties that can provide appropriate hedging instruments.

In Japan, supported by a deep-rooted preference of individuals to bank deposits, the banking sector has provided funds to real economy including the government sector by extending private-sector savings. Based on such a structure, interest rate risk associated with providing funds by holding of bonds has been managed with a thorough care under the Pillar 2 framework. If the Pillar 1 framework is introduced requiring banks to hold conservative capital, banks will become excessively cautious about holding bonds. As a result, Japanese banks will no longer be able to fulfill their role as a financial intermediary that conforms to the Japan's market structure, which may lead to destabilize financial markets. Going forward, the Bank of Japan is expected to gradually reduce the purchase of assets as it plans to shift away from the monetary easing policy. Amid such circumstances, it is our concern that an impact on the supply and demand of bonds and their prices could be amplified, which may become a constraining factor to the exit strategy of monetary easing.

As discussed above, to maintain positions even in times of stress and to take the roles as a “buffer” to reduce cyclicalities are the banking book's key roles. Disadvantages of undermining such roles and benefits from requiring overly conservative capital charge must be compared and assessed thoroughly.

2. Measurement of IRRBB is not amenable to the standardised approach.

We consider that it is appropriate to manage IRRBB based on internal models according to each bank's risk profiles in light of the fact that the balance sheet structure, asset and liability management operation and customer behaviour differs across jurisdictions and banks, and that it is not an appropriate regulatory framework to take a “one-size-fits-all” approach by adopting the standardised approach.

(1) Diversified nature of IRRBB

Each financial institution's business models for lending and market investment activities significantly vary depending on their respective business practices. For example, the stickiness of non-maturity deposits (e.g. ordinary deposits), customers' sensitivity to interest rates and early redemption/prepayment risk of term deposits and mortgage loans vary across jurisdictions. Also, features of business models and products depend on the financial market structure and regulations of each jurisdiction. As characteristics of IRRBB are diverse, IRRBB is not amenable to the standardised approach. Instead, it is appropriate for each bank to capture interest rate risk by using internal models that reflect respective business models and product features.

Taking this into consideration, supervisors should focus on non-routine supervision and review processes to achieve total optimisation rather than focusing on ensuring comparability by using standardised indicators only to achieve partial-optimisation. In addition, a “one-size-fits-all” approach with detailed rules would fail to keep up with current technical innovations and financial market changes that are occurring drastically than ever before and thus would soon become out of date. In view of the fact that IRRBB management based on such an approach may rather amplify the impact of crisis, it is preferable to establish a framework that enables national supervisors to take actions at their discretion with agility and flexibility.

(2) Concern that overestimation/underestimation of interest rate risk may occur

If market interest rates are low/high under circumstances where interest rate environments vary across jurisdictions, the amount of interest rate shock, and even the amount of capital to be imposed, will depend on exogenous figures, such as floors and caps. This could result in overestimation/underestimation of actual risk amounts, thereby failing to achieve the original purpose to accurately measure interest rate risk. Such inaccurate risk measurement may lead to unintended consequence of deteriorating customer services.

Traditionally, banks have developed internal models in accordance with characteristics of their customers, such as core deposits and prepayment of mortgage loans, and have conducted hedging and investment activities based on the interest rate risk measured based on such models. The proposed approach in the Consultative Document (mainly the one pertaining to core deposits) is subject to conservative and uniform constraints and requirements, and thus is meaningful as common metrics but could give rise to a concern over gaps from actual risk measured for internal management purposes.

Referencing the calculated outcome of the standardised approach would not improve the consistency, transparency and comparability across banks because this approach is not capable of reflecting actual situation of banks’ interest rate risk. Therefore, the use of the standardised approach would neither promote market confidence in bank’s capital adequacy nor help establish a more international level playing field. Further, if the standardised approach substantially serves as a floor when measuring risk amounts, it may disincentivise banks to enhance their internal models or internal management systems.

(3) Importance of giving due regard to social significance of each business type

Financial institutions subject to the Basel banking regulation are engaged in a variety of business types and have different social significance depending on such business types. Also, there will be a huge impact on business models of each business type caused by the IRRBB-related regulation, as can be typically seen in the treatment of deposits. In introducing the regulation, therefore, the supervisors are requested to pay due regard to social significance of each business type and establish a framework that enables meticulous actions. Further, given different depositor behaviour and laws and regulations

across jurisdictions, a regulatory framework should be designed to allow discretion of national supervisors to ensure that assumptions, etc. related to the measurement of interest rate risk of deposits will commensurate to actual conditions.

3. Model-based IRRBB management within the Pillar 2 framework is appropriate.

As described above, given that (i) the Pillar 1 capital framework for IRRBB may jeopardize banks' functions of financing and maturity transformation; (ii) the business model of commercial banks, the real economy and customers may be adversely affected in a way unintended by supervisors; (iii) characteristics of IRRBB are diverse and thus the standardised approach is not suited to measurement of IRRBB and for other reasons, it is considered as appropriate to secure adequate capital in preparation for an increase in interest rates through dialogue with supervisors under internal models-based Pillar 2 regulatory framework.

IRRBB can be managed appropriately through outlier testing and capital adequacy assessment under the Pillar 2 framework. National supervisors should ensure appropriate supervision at their discretion so as not to limit banks' function of providing funds to customers. Further, in light of the diversity of IRRBB, constraints on national discretion should be minimized.

(1) Proposal for an enhanced Pillar 2 approach

(a) IRRBB Principles 1 and 9

It is our understanding that specific definitions and covered products of and methods for measuring, identifying and managing credit spread risk in the banking book (CSRBB) have not been discussed sufficiently to date. Therefore, the issue of CSRBB should be reviewed separately and thus be excluded from this Consultative Document.

(b) IRRBB Principle 4

An economic value-based approach (EVE) and earnings-based approach (NII) are subject to six regulatory interest rate scenarios, interest rate scenarios for internal management purposes and other supervisory requirements. To avoid excessive management, consistency between regulations and methods used in general internal management practices should be ensured as much as practical.

Further, the BCBS is requested to allow the application of internal models that better reflect actual conditions to core deposits and calculation using sensitivity to measure the amount of impact of economic value of equity (EVE) because it is not preferable if there is a gap between interest rate risk captured within the regulatory framework and the one captured under internal management.

(c) IRRBB Principle 8

(i) We disagree with the measurement, reporting and disclosure of interest rate risk by using the standardised approach.

The standardised approach is not capable of appropriately measuring each bank's actual interest rate risk, and therefore, its measurement, reporting and disclosure based on the standardised approach could lead to inaccurate risk recognition. The calculation results that do not appropriately reflect actual risk conditions may, if disclosed, provide inaccurate information to market participants. (For example, an external party who noticed the difference in calculation results between the internal model approach and the standardised approach considers that the standardised approach is correct and the reliability of internal models is low, and thus only trusts the result of the standardised approach.)

Further, although it is described that public disclosure is “in order to improve comparability across banks (Principle 8)”, there is not much significance to compare the calculation results of the standardised approach as they do not reflect actual risk conditions of those banks using internal models. Further, if the calculation results of the standardised approach are disclosed, investors may make judgment based on such results, which may, in substance, give rise to a similar impact that arises under the Pillar 1 capital framework.

As IRRBB is diverse, it is not practical to disclose the interest rate risk measured by the “one-size-fits-all” standardised approach. Therefore, by enhancing disclosure of calculation outcomes under internal management metrics that reflect the diversity of each bank and assumptions used under such metrics, it would be possible to appropriately capture and compare interest rate risk of each financial institution. Fixed disclosure formats and requirements should not be defined. Rather, each financial institution should be granted discretion to determine disclosure formats and requirements, and an initiative to enhance a voluntary disclosure through dialogue with markets should be promoted. The standardised approach should be viewed only as a fallback approach for those financial institutions that cannot use internal models.

(ii) Use of the standardised approach in parallel with internal models

In order to measure, report and disclose IRRBB under the standardised approach, in addition to internal models, banks will need to develop systems and establish an appropriate framework, incurring significant workload in practice after the application of the regulation. Workload to develop processes and procedures for measuring, reporting and disclosing figures that cannot be used for internal management purposes should not be imposed on banks.

(iii) Calculation formula of outliers

The format of Table 15 in page 51 of the Consultative Document requires provision of quantitative information that indicates the percentage of outliers, such as “ $\triangle \text{EVE}/\text{CET1}$ ” and “ $\triangle \text{NII}/\text{NII}$ ”. However, a reasonable numerator to calculate the percentage of outliers would be “ $\triangle \text{EVE} + \text{NII}$ ”.

(d) IRRBB Principle 10

We disagree with the measurement and reporting of risk amounts based on the standardised

approach because it makes no sense in measuring risk amounts by an approach that cannot appropriately reflect each bank's actual conditions. The standardised approach should be viewed only as a fallback approach for those financial institutions that cannot use internal models.

(e) IRRBB Principle 11

Constraints on the internal model's parameters set by supervisors should be limited because, for example, the stability rate and the pass-through rate of deposits, which are parameters set for core deposits, vary considerably depending on whether it is local currency or not and depend also on depositor behaviour, etc. and thus are not amenable to unified constraints.

(f) IRRBB Principle 12

The numerator of outliers should be " $\Delta\text{EVE} + \text{NII}$ " instead of " ΔEVE ". With regard to IRRBB of commercial banks which are expected to continue its function of providing funds to customers, it is appropriate to add to NII, which is going concern value, future unrealized gains and losses (ΔEVE) that cannot be fully captured by NII.

Supervisors are requested to bear in mind that, even if the level of outlier is the same, what it implies would differ depending on the manageability of interest rate risk, such as market liquidity of assets traded in the market or whether risk hedging is available in the market and whether interest rates applied can be changed with agility, which depends on characteristics of respective products provided to customers.

4. Timing of implementation

A sufficient period of time for transition should be provided to implement the regulation.

(Appendix) Technical aspects of the measurement of interest rate risk in the banking book

Note: As this section discusses issues described in bullet points (i) to (vi) in page 2 of the Consultative Document, our comments herein include those pertaining to the standardised Pillar 1 approach and its alternative proposals. Such comments and proposals are only intended to contribute to international discussions and do not represent our support to the Pillar 1 approach.

(1) Technical aspects, particularly regarding the approaches for behavioural options, the earnings measures and basis risk

(a) Behavioural options

While the Consultative Document lists term deposits, term deposits with redemption risk, fixed rate loans with prepayment risk and fixed rate loan commitments as an instrument to consider behavioural options, there are other instruments that behavioural options are embedded. The Consultative Document should clarify whether securitised products backed by fixed rate loans with prepayment risk and consumer loans which are de facto fixed rate loans (those hitting and sticking to the cap rates) are included in the scope. Further, it need to be clarified whether repayment cash flows after the use of fixed rate loan commitments should be measured.

(b) Calculation of NII

The Consultative Document gives a description that can be interpreted as not allowing the rollover of assets/liabilities in calculating NII (P.31) while at the same time gives another description that can be interpreted otherwise (P.59). The Consultative Document should clarify that the rollover of the same product is permitted.

More specifically, page 31 describes that “(...) does not contain information about the repricing conditions or about new business/future production. Therefore, the NII approach ignores assumptions about a bank’s future business” while the description in page 59 assumes that all assets/liabilities held will be rolled over.

For those products reaching maturities, if they are deemed to be a same product, the rollover should be permitted. The rollover of assets/liabilities having the same conditions is considered as reasonable because such a practice does not reflect bank strategies, etc. and does not involve arbitrariness.

(c) Time horizon of NII calculation

The Consultative Document should clarify the time horizon T , which is used to calculate NII and is left undefined in page 31. Possible reasonable time horizons would include periods that take into account business planning horizon in banking practices (e.g. six months or one year).

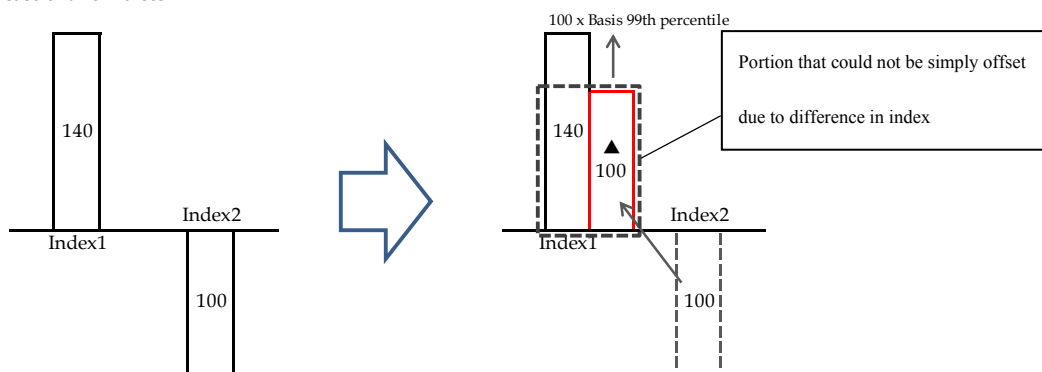
(d) Basis risk

In banking practice, NII is calculated from cash flows that are projected in accordance with reference rates or repricing frequency, and basis risk already reflects in such NII calculation. Therefore, adding on the basis risk is considered as unnecessary.

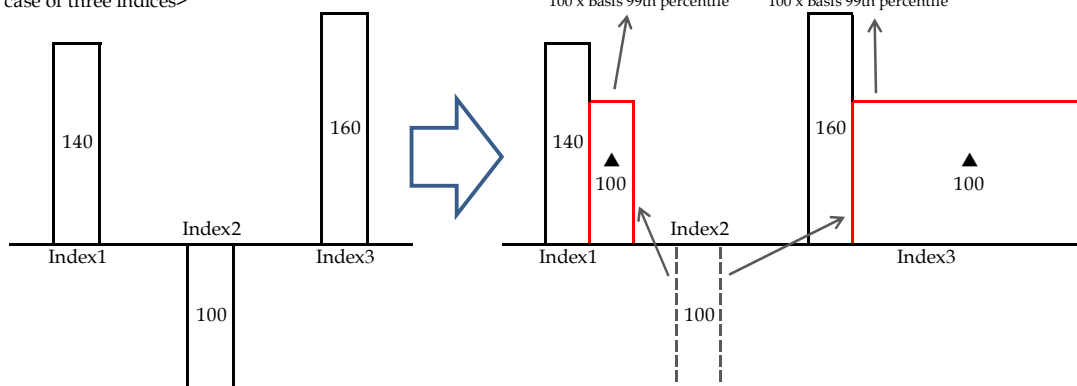
Even if basis risk is taken into account, the formula should be amended to enable calculation of not only the loss side but also the profit side because earnings during the period could increase caused by the basis spreads of each reference rates in some cases.

Furthermore, according to the formula defining basis risk described in the Consultative Document, of notional cash flows of different reference rates, the 99th percentile of all combinations having different signs need to be recognized as basis risk.

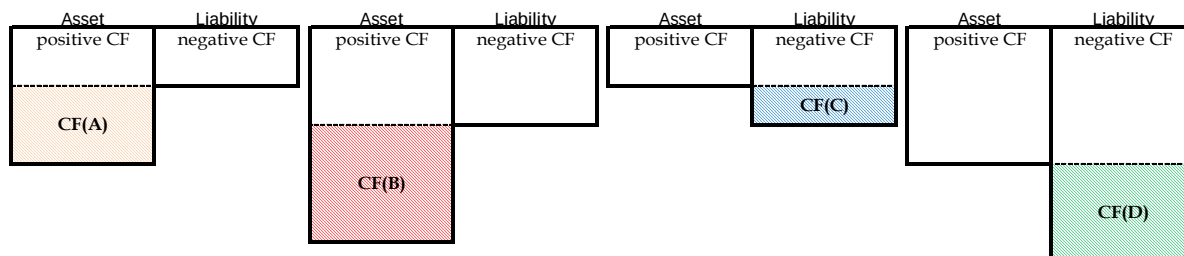
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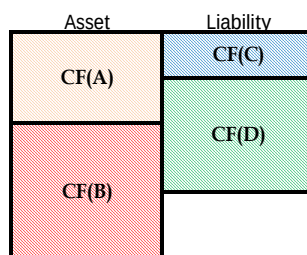
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Where there are three or more reference rates, the outcome will be conservative. Therefore, we propose the following as an example.



- (i) Netting cash flows (“CF”) from the investment side of the same reference rate with CF from the funding side.
- (ii) For each pair of netted investment CF and funding CF created, calculate the sum of basis risks.



Also, there are following issues regarding the definition of HS_{rr_x, rr_y}^c (P. 32) and $HS_{rr, rfx, rfr}^c$ (P. 33):

- (i) There is no meaning in using the moving average.
- (ii) It is not defined whether the 99th percentile means the upper or lower 99th percentile.
- (iii) According to the Consultative Document, the “rate differentials between the pairs” will be calculated. Therefore, in the case of a pair of reference rates where a rate differential is maintained at a certain level on an ongoing basis, a basis risk may be overestimated.

Given the above; we would like to propose the following in respect of the above-mentioned definition.

- (i) The moving average should not be used.
- (ii) The definition of the “99th percentile” should be clarified. (e.g. There are several options, including “upper”, “lower” and “prorating the 99th percentile of both sides.”)
- (iii) Should be defined as the percentile of the “range of changes over a certain period” in the “rate differentials between the pairs”.

(2) Specification and values of the standardised risk parameters as well as constraints on the own estimated risk parameters

(a) Core deposits

Since parameters of core deposits, such as maturity cap, stability rate and pass-through rate

depend on differences in jurisdictions, currencies and depositor behaviour, etc., it is difficult to uniformly quantify these parameters or their caps and floors by using the standardised approach. In particular, although the Consultative Document requires the maturity cap of no longer than six years, this is inconsistent with the internal model-based results which are calculated based on historical analysis, etc. because of depositor behaviour unique to Japan, i.e. there is a deep-rooted preference of deposits by individuals. (Some internal models of Japanese banks set their maturity cap at no less than 10 years.) Further, the pass-through floor is considered to be set at a high level relative to actual conditions, particularly in the case of wholesale deposits, given the relationship between historical market interest rates and interest rates on liquid deposits and the effects attributable to non-interest bearing deposits used for settlement purposes. For those banks whose majority of the deposits consist of such non-interest bearing deposits used for settlement purposes will most likely to fall far below the proposed floor.

Core deposits have different characteristics depending on depositor behavior in each jurisdiction and the customer base or deposit policies of each bank. Therefore, it is considered that the internal model-based estimation will enable more accurate measurement of its interest rate risk rather than establishing uniform parameters. The BCBS should carefully consider models, parameters and constraints, including the adoption/permission of the internal model-based approach, based on the result of Quantitative Impact Study (“QIS”).

Taking the eligibility of core deposits as an example, it is recommended that a broader discretion be given in terms of maturity cap of core deposits and the scope of candidates for eligible core deposits, etc. on the condition that the internal model is approved by national supervisors.

(b) Transactional/non-transactional classification for liquid deposits

Of core deposit estimation approaches, the transactional/non-transactional classification should not be applied to stability caps and pass-through rates. Retail deposits are managed by the transactional/non-transactional classification only under the LCR regulation and are not managed by such classification for interest risk management (internal management) purposes.

(3) Specification, selection and calibration of the prescribed interest rate shock scenarios

(a) Method used to develop interest rate scenarios

The Consultative Document should provide more detailed descriptions and calculation examples regarding the method used to develop interest rate scenarios in order to prevent misinterpretation and to integrate the method. Our specific requests are described below:

(i) Provide specific methods to develop each scenario. Especially in page 15, while six scenarios are introduced in the beginning, different categories “{parallel, short, long}” are provided right afterwards as scenario j of a shock parameter. This description is unclear and may give rise to misconception.

(ii) With regard to the bullet-point 1 in page 15, provide specific examples of how to “average in each

time bucket k ” which is required when calculating risk-free, continuously compounded zero-coupon rates.

(iii) Provide the definition of S_{average} , which is referred to in note 22 of page 15, in the text. (Currently, no definition is provided.)

(iv) In section “Caps and floors” in page 17, the zero lower bound condition of interest rates is described in relation to the second formula. Provide specific examples of how to treat the zero floor in the base scenario (especially in the case of negative interest rates). Under current practice, if an interest rate is negative, the interest rate may increase in the interest rate downward scenario.

(v) In Table 2 of page 14, cash flows are classified into 19 time buckets, with the period up to 2 years, the period over 2 years up to 7 years, and the period over 7 years being treated as short-term, medium-term and long-term, respectively. On the other hand, Table 3 “Global interest rate shock parameters” in page 17 uses the categories of short-term, parallel shift and long-term. This difference may lead to misconception. Therefore, in addition to providing examples of how to develop interest rate scenarios, it is requested that such categories will be integrated and clarified by, for example, defining the short-term and long-term categories as “two years and less” and “over two years”, respectively.

(b) Interest rate shock scenarios

The interest rate scenario applies caps/floors to the value derived from multiplying the current rate level R by the global shock parameter α and the scenario’s scalar S . Under this method, however, the application of caps/floors undermines the function of the scalar S , thereby failing to appropriately express a non-parallel scenario. Instead of the proposed method in the Consultative Document, it is recommended that caps/floors be applied to the value derived from multiplying the current interest level R by the global shock parameter α , and then the resulting value be multiplied by the term structures S (namely, multiply the scalar S at the end) because this method will enable creation of more realistic interest rate scenarios.

In the first place, common interest rate shock floors applicable to all jurisdictions and currencies should not be introduced. Changes in interest rates in times of stress vary depending on jurisdictions and interest rate levels. Therefore, measures should be based on historical market changes in each jurisdiction and floors should be established in accordance with the interest rate level by, for example, applying factors to the current level.

While the calculation formula proposed in page 15 would have no problem as a basic formula of interest rate scenarios, it should be modified when developing a parallel shock scenario so that the “range” of interest rate changes is maintained at a certain level. If a parallel shock scenario is created using the proposed calculation formula, the “percentage” of interest rate changes will be maintained at a certain level but the range of interest rate changes will change in proportion to the absolute value of the current interest rate level. As a result, a “parallel” “shock” scenario cannot be created. Therefore, when developing a parallel shock scenario, an alternative approach could be taken; for example, an

average of 19 buckets be used for $\check{R}_c(tk)$ in the right-hand side of the calculation formula in page 15.

(4) Specification of the minimum capital requirements calculations, in particular on a possible earnings-based (NII) overlay to the EVE measure, the scenario-consistency principle and currency aggregation rule

(a) NII and NIP

The Consultative Document uses NIP which represents NII after adjustment of costs. However, NIP adjusted for costs should not be used because it is not appropriate to deduct costs due to the reasons described in the following. The BCBS is therefore requested to continue discussions on appropriate indicators which are based on future NII in interest rate shock scenarios.

(i) The risk measurement should be based on future (not historical) NII in interest rate shock scenarios under the assumption of rollover with the same conditions.

(ii) If costs are reflected in risk amounts, risk amounts can be reduced by cutting costs. In practice, banks spend money to control risks. Given this, this option may undermine banks' sound risk control activities.

(iii) Costs depend on applicable accounting systems, etc. and differ across jurisdictions and banks.

(iv) Rates for customers related to deposits and loans, etc. include a reasonable portion of costs and thus net interest income (NII) based on rates for customers reflect costs. However, to what extent costs will be reflected in such rates for customers depends on each bank. Therefore, NIP, which is NII after costs, is considered as an indicator inappropriate to the standardised approach.

If the concept of costs is introduced to the earnings-based approach, the BCBS should also allow banks to consider factors to be reflected in EVE, such as tax-effect, that will alleviate the decline of capital.

Further, costs are deemed to be those incurred in generating earnings (interest income) from the banking book. Given this, impairment, for example, should not be included in such costs. As the definition of costs is ambiguous, the definition of expenses related to NII may differ depending on the nature of banks. Therefore, from the perspective of comparability, NII is preferred to NIP.

(b) The change to NII and the level of NII

The level of NII should be used, instead of the change to NII, for the following reasons:

(i) If unrealised gains/losses (the change to unrealised gains/losses equals the amount of profits/losses (PL)) are used with regard to EVE whereas the change to NII is used for NII, consistency cannot be achieved because in latter case the change to NII equals the change to PL. It would be more reasonable to apply the level of NII, i.e. unrealised gains/losses (Δ EVE) + earnings.

(ii) When the value declines in the case of EVE, not only the portion of increased NII but also NII

itself could function as a capital buffer.

(iii) With regard to IRRBB of commercial banks which are expected to continue the function of providing funds to customers even in times of stress, it is appropriate to add changes in future unrealized gains/losses (Δ EVE) that cannot be captured by NII to the NII level which is the going-concern value.

(c) Automatic interest rate options

In respect of automatic interest rate options used for hedging purposes in the context of EVE calculation, the total automatic interest rate options risk measure (KAO) should be calculated by capturing changes in the value of the option netted (after macro hedging) in line with banks' practices. Further, the BCBS is requested to provide a specific scope of automatic interest rate options.

(d) Currency aggregation of interest rate risk

With regard to aggregation of interest rate risk across different currencies for the purpose of calculating capital requirements, the BCBS should use correlation factors that are based on historical data, or if its view is that correlation factors are not reliable enough, should allow the use of a correlation factor of 1 to sum gains and losses (= the sum of gains and losses based on simple aggregation) in order to avoid unreasonableness of setting asymmetric parameters.

In summing gains and losses arising from different currencies in relation to interest rate risk, the Consultative Document proposes to apply a multiplier of 0.5 or less (the proposed preliminary value in the Consultative Document is 0.25) to currencies that incur gains. Firstly, it is not considered reasonable to establish different multipliers to sum gains and losses given banks' financial operation and integrated risk management practices. In light of banks' practices, correlation factors based on historical data should be used. Secondly, in the consultative document concerning the fundamental review of the trading book, a correlation factor of 0.5 is proposed to aggregate interest rate risk across different currencies, which may give rise to inconsistency between regulations if the current proposal is adopted. Lastly, to establish different multipliers artificially for summing gains and losses may cause unintended and unreasonable consequence. We would like to provide examples below to explain how the application of different multipliers as proposed in the Consultative Document could distort banks' investment and financing activities.

Suppose that there are Portfolio A for the U.S. and German interest rates which have almost the same amount but opposite sign of the impact, and Portfolio B which are a Portfolio A plus exposures of the third currency whose portfolio is completely different from Portfolio A.

When risk amounts are compared by correlation and volatility that is based on historical data of each currency, the risk amount of Portfolio A is obviously lower. However, according to the proposal in the Consultative Document, Portfolio B results in a smaller impact and lower capital requirements. It is not unrealistic to assume that some banks may select Portfolio B, rather than Portfolio A, because they have no choice but to mitigate the impact on the capital adequacy ratio. We are deeply concerned

that in such a way regulation could incentivise banks to distort their investment and financing activities or risk management and as a result may cause another financial crisis.

In this view, with regard to aggregation of interest rate risk across different currencies; the BCBS should use correlation factors that are based on historical data, or if its view is that correlation factors are not reliable enough, should allow the use of a correlation factor of 1 to sum gains and losses (= the sum of gains and losses based on simple aggregation) in order to avoid unreasonableness of setting asymmetric parameters.

Example of aggregation of interest rate risk across different currencies: Portfolio (expressed as the amount of sensitivity to a shift of 100bp, with positions incurring gains from a rise in interest rates being expressed in negative values)

	U.S. interest rate	German interest rate	Third country interest rate
Portfolio A	-80	100	0
Portfolio B	-80	100	-75

Interest rate shock scenario

	U.S. interest rate	German interest rate	Third country interest rate
As of May 2015	125bp	100bp	400bp

Impact by the proposal in the Consultative Document and the risk amount by the variance-covariance method

	Calculation by the Consultative Document	1σ by the variance-covariance method
Portfolio A	75	28
Portfolio B	0	71

Correlation factors of interest rates: US and German interest rates 0.84

US and third-country interest rates 0.33

German and third-country interest rates 0.47

Volatility of 10y interest rate: US interest rate 62bp; German interest rate 49bp; and third-country interest rate 96bp (use daily data from January 2000 to April 2014 (= the period of estimating interest rate shock in the Consultative Document), and select a change over the six-month period with overlap)

Third-country interest rate: Interest rate of South African Rand

(Calculation by the Consultative Document)

Portfolio A = $-80 \times 125/100 \times 0.25 + 100 \times 100/100 = 75$

Portfolio B = $(-80 \times 125/100 - 75 \times 400/100) \times 0.25 + 100 \times 100/100 = 0$

(1σ by the variance-covariance method)

Portfolio A

$$= \text{Sqrt} \left[(-80/100*62, 100/100*49) \begin{bmatrix} 1 & 0.84 \\ 0.84 & 1 \end{bmatrix} \begin{bmatrix} -80/100*62 \\ 100/100*49 \end{bmatrix} \right]$$

Portfolio B

$$= \text{Sqrt} \left[(-80/100*62, 100/100*49, -75/100*96) \begin{bmatrix} 1.00 & 0.84 & 0.33 \\ 0.84 & 1.00 & 0.47 \\ 0.33 & 0.47 & 1.00 \end{bmatrix} \begin{bmatrix} -80/100*62 \\ 100/100*49 \\ -75/100*96 \end{bmatrix} \right]$$

(Reference data)

Correlation between interest rates on government bonds of the U.S., Germany and Japan

Daily data from January 2000 and April 2014 and a change in the six-month period with overlap were used to calculate the correlations which resulted in approximately 0.7 as shown in the following table.

	10-year interest rate	5-year interest rate
UST and JGB	0.64	0.66
Bunds and JGB	0.65	0.65
UST and Bunds	0.84	0.76

(5) Information on the standardised approach to compare with the internal management approach for IRRBB

(a) Approach based on cash flows and approach based on sensitivity

The standardised approach assumes that EVE changes should be measured based on cash flows. However, given that the trading book framework and automatic interest rate options allow an approach based on sensitivity and such an approach has the merit of ensuring consistency between interest rate risk under banks' current internal management and regulatory interest rate risk, it is considered that a calculation method based on sensitivity should be permitted as well.

(b) Sufficient time for preparation

To implement the proposed regulation under this Consultative Document, the BCBS and supervisors need to assess the effects of various interest rate conditions on financial institutions while financial institutions need to prepare for the implementation of the regulation by introducing measurement systems that are capable of processing complicated regulatory calculation formulas and estimating parameters and by developing processes and procedures for the required calculation and disclosure, which is expected to take considerable time. It is therefore requested that a sufficient time be given for preparation.

In particular, if a calculation method based on cash flows is adopted, banks would need

considerable lead time to develop processes and procedures for measuring risk based on cash flows because their risk measurement for internal management purposes is generally based on sensitivity. Given this, the BCBS is requested to provide a sufficient period of time until the implementation of the regulation or provide transitional arrangements to allow risk measurement based on sensitivity until the establishment of processes and procedures enabling cash flow-based measurement is completed.

(6) Others

(a) Outlier threshold

Taking into account the diversity of bank risk profiles, we consider that identifying potential outlier banks is only one of the criteria to trigger dialogue with supervisors under the Pillar 2 framework. Further, as the numerator to calculate the percentage of outliers, it is appropriate to add changes in future unrealized gains/losses (Δ EVE) that cannot be captured by NII to the NII level that is the going-concern value with regard to IRRBB of commercial banks which are expected to continue the function of providing funds to customers even in times of stress.

The format of Table 15 under Principle 8 in page 51 of the Consultative Document requires provision of quantitative information that indicates the percentage of outliers, such as " Δ EVE/CET1" and " Δ NII/NII". However, a reasonable numerator to calculate the percentage of outliers should be " Δ EVE+NII" with the formula being: $(\Delta$ EVE+NII) / Denominator (Total Capital, Tier 1 or CET1).

Similarly, with regard to the percentage of outliers used to determine whether a bank is outlier in Principle 12, the numerator should be " Δ EVE + NII" instead of Δ EVE.

(b) Scope of cash flow bucketing (P.13 "2.1 Cash flow bucketing")

The description "not deducted from CET1 capital" with regard to assets subject to IRRBB measurement should be revised to "not deducted from Total Capital" in order to avoid double counting in calculating capital requirements.

If this requirement in the Consultative Document (i.e. "not deducted from CET1 capital") is followed, assets which are "deducted from AT1 capital" and "deducted from T2 capital" will also be subject to IRRBB measurement. For example, assets deducted from AT1 capital and T2 capital based on the corresponding deduction approach under Basel III, such as investments to other financial institutions (i.e. double-gearing assets), will become subject to IRRBB measurement and be included in RWA while at the same time be deducted from total regulatory capital, resulting in double counting.

(c) Clarification of the definition of terms used in the Consultative Document

The clarification of the definition of the following terms used in the Consultative Document is requested.

(i) The definition of the term "on a consolidated basis" described in the fifth paragraph of page 1. Is

the IRRBB measurement framework applied on a consolidated basis of a holding company or of a bank?

(ii) The definition of “CF_{0,c,rr}” and “CF_{0,c,rr,rf}” described in the formulas set out in page 32 and 33, respectively.

(iii) Whether interest rate risk included in risk-weighted assets described in and after page 34 need to be divided by 8%, similarly to the treatment of operational risk.

(iv) Whether the BCBS intends to impose any constraints on the future balance sheet on which earnings described under Principle 4 in page 42 are based, and whether the balance sheet used for earnings planning purposes can be used.