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Secretariat of the Basel Committee on Banking Supervision
Bank for International Settlements
CH-4002 Basel, Switzerland
baselcommittee@bis.org

Dear Sir/Madam:

Re: CBA[1] Comments on the Basel Committee on Banking Supervison's Consultative Document: *Fundamental Review of the Trading Book*

Thank you for the opportunity to comment on the Basel Committee on Banking Supervision's (BCBS) consultative document *Fundamental review of the trading book*. The CBA supports the BCBS's efforts to strengthen capital standards for market risk in the trading book, with the goal of contributing to the resilience of the banking sector.

Our overall comments on the document, our comments on some of the key issues currently being examined by the Trading Book Group of the BCBS, and some of our questions surrounding implementation are set out in this letter. Our more detailed responses to the specific questions in the consultative document, our additional questions, and requested points of clarification are set out in the annex to this letter.

Overall Comments

While the CBA supports the policy objectives in the document, we are concerned that the proposed trading book framework would place less emphasis on the 'use test' and a greater focus on measuring risk under periods of market stress. The consequence of this narrow focus is that some of the proposals are not suited for day-to-day risk management of the trading book. The CBA is also concerned that some of the proposals would require banks to calibrate their models to yesterday's stress rather than focus on more forward-looking risks.

[1] The Canadian Bankers Association works on behalf of 54 domestic banks, foreign bank subsidiaries and foreign bank branches operating in Canada and their 274,000 employees. The CBA advocates for effective public policies that contribute to a sound, successful banking system that benefits Canadians and Canada's economy. The Association also promotes financial literacy to help Canadians make informed financial decisions and works with banks and law enforcement to help protect customers against financial crime and promote fraud awareness. www.cba.ca.

While ensuring capital adequacy under stressed conditions is a valuable goal, the framework must ensure that risk measures remain useful for active risk mitigation. Active risk mitigation is the key to limiting the severity of losses and is preferable to allowing greater loss against a higher capital cushion.

We are also concerned with the apparent trend towards increasing complexity in the modelling of trading book risks. There is great value in simplicity and not unnecessarily adding to the operational risk and overhead implicit in adding many moving parts to the modelling process.

The CBA believes that, under the proposed framework, regulators would be assuming much more responsibility and accountability for risk measurement of the trading book than in the past. For example, regulators would need to ensure that risk measurement assumptions, including empirical correlations, are correct and complete. We believe this approach could place significant resource demands on regulators. Under the proposed framework, supervisors would need to be careful not to increase systemic risk through missing risk factors, or by driving increased activity into specific instruments or trading strategies through imbalances in capital treatment. They would also need to have a mechanism to ensure that risk factors are relevant to current market conditions.

The CBA supports the BCBS's efforts to ensure that the regulatory framework for the trading book is implemented consistently by supervisors and achieves comparable levels of capital across jurisdictions.

We encourage the BCBS to continue its work on interest rate risk in the banking book, as well as reviewing the capital framework for credit valuation adjustments (CVA). In particular, we support a framework where the capitalization of CVA risk is more congruent with the rest of the trading book framework.

The Trading Book/Banking Book Boundary

The CBA agrees that the current "trading-intent" definition of the trading/banking book boundary is an inherently subjective criterion that should be improved upon. The CBA supports the BCBS's efforts to strengthen the definition of the boundary and move towards either the "trading-evidence"-based boundary or the valuation-based boundary.

CBA members recognize specific advantages and disadvantages of each approach and a consensus among members was not found. We note that the boundary question is difficult to answer given the uncertain outcome of the interest rate risk in the banking book review, and in particular the possible implementation of a Pillar 1 capital requirement that may be required as a result of this review. We request that the shortcomings of whichever approach is chosen are addressed.

Our specific concerns over each approach are detailed in the annex.

Market Illiquidity

The CBA recognizes the BCBS's efforts to incorporate the risk of market illiquidity as a key consideration in banks' regulatory capital requirements for trading portfolios. However, as the document indicates, there are many challenges related to capturing this in a cohesive framework, and a number of our specific concerns are outlined in the annex. We would also like

to note that calibration to a stressed period implies a reduction in liquidity, so the framework needs to ensure that this risk is not double-counted.

Of the three options outlined in the annex, we support the third option. Although the details of the proposal would need to be further established, we believe this best aligns with the Committee's objectives of reflecting liquidity risk in the trading book while minimizing the complexity of the framework.

The CBA favours the use of prudent valuation adjustments as they can be specifically targeted to account for endogenous liquidity. This approach would introduce a uniform approach to accounting for endogenous liquidity risk for banks in the revised models-based and standardized approaches. The CBA is also generally supportive of incorporating capital add-ons for jumps in liquidity premia, subject to more defined implementation measures.

The CBA would like to raise an issue related to the appropriate determination of liquidity horizons. The depth of the market across jurisdictions can vary significantly, and we would caution against a regime where determination of liquidity is overly punitive or prescriptive so as to create an unlevel playing field globally.

Revised Standardized Approach

The CBA agrees with the BCBS's principles of simplicity, transparency and consistency, as well as improved risk sensitivity for the design of the revised standardized approach. The CBA also agrees that the standardized approach should include a market-based calibration so as to act as a credible fallback to internal models.

Based on the description in the consultative document it seems that the fuller risk approach would better leverage existing risk infrastructure and would thus be easier to implement, be more risk sensitive, and serve as a better benchmark and fallback option compared to the internal models based approach. However, the CBA would need further information to be able to confirm its preference for the fuller risk factor approach over the partial risk factor approach.

Revised Models-based Approach

The BCBS should ensure that under the proposed new framework outlined in the consultative document, the capital incentive for banks to use internal models-based approaches relative to standardized approaches is retained. The CBA believes that it is important for banks to continue to be provided with sufficient capital incentives to develop more sophisticated and refined risk models for measuring risk in the trading book. Without these incentives, banks will be less inclined to develop and maintain internal models and will become more reliant on standardized approaches and their inherent weaknesses. At the very least, development of internal models will serve as a useful benchmark/calibration tool for any developed standardized approach.

On some of the particular proposals/questions:

- The CBA is supportive of the overall proposal to have a desk level approach to achieve a more granular approval process. A number of questions/concerns are outlined in the annex, but we feel the overall concept of aligning model approval on both P&L attribution and backtesting is appropriate.

- The CBA is supportive of a risk factor based aggregation mechanism for determination of overall capital requirements. The risk factor based aggregation provides a simpler and more coherent methodology.
- The CBA is not supportive of regulatory prescribed correlations as a mechanism for limiting diversification benefits. There are a number of issues in pursuing such an approach that are further outlined in the annex, together with an alternative simpler approach that may avoid some of these issues.
- The CBA acknowledges the BCBS's desire to move away from VaR and towards ES as a risk measure. However, there are a number of concerns – if the percentile for this measure is excessive – that are outlined in the annex, and the CBA would prefer a more reasonable percentile (e.g., 95%).

Relationship Between Internal Models-based and Standardized Approaches

The CBA is supportive of the BCBS's efforts to strengthen the relationship between the models-based and standardized approaches, and in particular efforts to make the standardized approach more risk sensitive. We believe this would be best achieved through refinements to the standardized model to make it more risk sensitive, reducing opportunities for capital arbitrage, and better aligning its results to internal models approaches.

The CBA does not support the proposal to introduce the standardized approach as a floor or surcharge to the models-based approach as doing so would reduce the incentives for banks to use a models-based approach. However, of the two approaches, the CBA would prefer a surcharge based on the standardized approach, where the amount of the surcharge would be tied to model performance.

While the CBA recognizes the desire of the BCBS to make the standardized approach calculation mandatory for all banks, it wishes to note the significant increase in resources and expertise that banks would require in order to operate both the internal models and standardized approach. In fact, our members expect the standardized approach to be similar to the internal models approach in terms of operational complexity and resource requirements. Additionally, with less focus on the 'use test', members may choose to run a third, more risk-sensitive approach for economic capital and risk management purposes. Consequently, the CBA suggests that banks using internal models should not be required to run the standardized approach in parallel, but instead be required to <u>have the ability</u> to run the standardized approach if required. The capability of banks to be able to run the standardized approach, if required, could be tested by running the standardized approach on a periodic basis (e.g., quarterly). Furthermore, design choices that align operational requirements for the standardized approach with ones for the modelled approach would be recommended to reduce resource and operational burdens.

Implementation

The CBA appreciates the consultative approach the BCBS is taking with this review. Given the complexity of the issues, we believe that it is appropriate for the BCBS to release a more detailed set of trading book proposals, which would include a second round of consultation and a thorough Quantitative Impact Study (QIS).

Further guidance (as well as a QIS study) is necessary to better understand how the proposed approach can be implemented as well as its impact on capital and operations. In addition, the CBA suggests that the BCBS consider performing a 'Common Portfolio Analysis' as part of the QIS, with industry input and support, as an additional tool in designing the framework. In particular, design of the common portfolio(s) should be done with explicit industry collaboration.

CBA members also seek additional clarity in the following areas:

- expectations for maintenance of the current models (e.g., VaR, IRC) in the interim period;
- transition planning: given the magnitude of change proposed, the BCBS must ensure adequate time for banks to implement the model changes, the review process by national regulators, and the infrastructure the BCBS will need to develop and implement for maintenance of model parameters;
- Pillar III disclosure requirements;
- calibrating a stress scenario at a percentile for non-modellable risk factors;
- how specific risk will be handled in the new risk factor approach;
- how to validate and backtest the stressed ES measure; and,
- how often to report the capital charge under the standardized approach vs. ES.

Our members look forward to receiving further clarification in some areas of the framework and would welcome the opportunity to provide input on the appropriate timeline for its implementation.

We thank you for taking our comments into consideration and would be pleased to discuss these issues further at your convenience.

Sincerely,

ANNEX

CBA comments on BCBS'S Consultative Document: Fundamental review of the trading book

Question 1 - Which boundary option do you believe would best address the weaknesses identified with the current boundary, whilst meeting the Committee's objectives?

As noted in our letter, the CBA has not reached a consensus on the preferred boundary approach. Nevertheless, we provide our more detailed comments on each approach below. We note that the boundary question is difficult to answer given the uncertain outcome of the interest rate risk in the banking book review, and in particular the possible implementation of a Pillar 1 capital requirement that may be required as a result of this review.

"Trading-evidence"-based Approach

- As the consultative document notes, the "trading-evidence"-based boundary approach would require fewer changes to the current boundary relative to the valuation-based approach and allow for better alignment of capital treatment to management practices.
- However, we are concerned over the potential requirements to provide evidence of trading intent as mentioned on page 16 of the document ("proof of access to relevant markets for trading and hedging…"). These documentation standards could be particularly onerous and result in significant costs to banks. We suggest that these requirements be consistent with other evidentiary requirements such as the 'Volcker Rule' in the United States.

Valuation-based Approach

- The key benefit of a valuation-based approach is a better alignment of capital requirements with risks to capital resources. However, as the consultative document notes, it may be necessary to make adjustments to the boundary in order to avoid creating disincentives for prudent risk management of banking book exposures.
- The accounting treatment defines how market changes impact the profit and loss of the firm, regardless of intent. While intent may change how the position is managed, it does not change the underlying risk.
- There are also differences in accounting treatments across different jurisdictions that may cause potential issues.
- While there are different accounting standards across banks and jurisdiction, accounting rules are transparent. Differences in accounting standards are often better understood than different interpretations of trading intent.
- The valuation-based approach would allow accounting definitions to drive classifications between the trading and banking book, which could result in different classifications across jurisdictions. Conversely, the different capital treatment of instruments in the trading and banking book could also impact the accounting classification of the instrument. Some instruments (e.g., repos) that are best placed in the trading book could

instead be placed in the banking book due to their accounting classification. There will also be a greater incentive to classify positions on an accrual basis, reducing transparency and frequency of valuation.

- The valuation-based approach will default to accounting treatment to determine classification; therefore, there will be greater incentive to seek the accounting method that results in the most favourable capital treatment regardless of risk management implications.

- There are different concepts of "value" (e.g., fair value, mark-to-market value) that could cause inconsistent implementation of the valuation based approach.

Question 2 - What are commenters' views on the likely operational constraints with the Committee's proposed approach to capturing market liquidity risk including the endogenous component and how might these be best overcome?

- Of the three options outlined in Annex 4, we support option 3 (historical or simulated one-day shocks with the aggregate risk measure scaled up to a unified weighted-average liquidity horizon). However, we suggest an additional alternative to calculate the weighted-average liquidity horizon - that the weighting be based on the allocated VaR to that book. Weighting by notional is problematic since notional is not a risk measure. For example, a given notional amount in equities will typically represent more risk than the same notional amount in interest rate swaps. Weighting by EAD is problematic since it brings in a CCR concept into market risk. Furthermore EAD amounts are defined at a netting set level and would potentially span multiple books making its application in this context very problematic. Weighting by allocated VaR/ES makes sense since it is risk sensitive and is something most firms would be doing anyway.

- Assessment of liquidity should be established at the risk factor level, consistent with identification of risk factors under the proposed internal-models based framework and consistent with the performance of P&L attribution. There are concerns over the practicality of regulators maintaining reasonable estimates of the proposed liquidity floors, especially given the significant number of risk factors.

- There are concerns on the fragmentation of ES results achieved by using various liquidity horizons and the implied correlations that result from how the risk factors are shocked.

- It is unclear how to treat banking book positions that might be included in a valuation-based approach to trading book that are meant to hedge exposures until maturity. In other words, the position is not meant to be sold and therefore market liquidity is not relevant.

- The options described in Annex 4 do not provide guidance for, and potential implications to, backtesting, which is to be based on daily P&L. Given a multiplicity of liquidity horizons, it is not clear what risk metric and at what risk horizon would be backtested.

Question 3 - What are your views on the proposed regime to strengthen the relationship between the standardized and internal model-based approaches?

- The CBA does not support the proposal to introduce the standardized approach as a floor or surcharge to the models-based approach as doing so would reduce the incentives for banks to use a models-based approach. However, of the two approaches, the CBA would prefer a surcharge based on the standardized approach, where the amount of the surcharge would be based on the model performance.

- The complexity of the proposed model approach, as well as the onerous parallel run of the new standardized approach, would result in a disincentive for banks to model due to:

    - less capital benefit expected from the model approach in the new framework;
    - significant complexity embedded in both model and standardized approaches, which need to be run in parallel, in addition to maintaining the current modelling framework;
    - the introduction of new risk metrics, which will impose significant challenges on bank resources and infrastructure (e.g., data, IT). Resources will be stretched in order to work on both existing and new metrics at the same time. There is the likelihood that the greatest number of skilled resources would work on the new measure at the expense of current models.

Questions

- Will banks be permitted to elect a standardized approach?

Question 4 - What are commenters' views on the Committee's proposed desk-level approach to achieve a more granular model approval process, including the implementation of this approach for banking book risk positions? Are there alternative classifications that might deliver the same objective?

- The CBA agrees with the objective of a more rigorous model validation process that examines performance at more granular levels.

- Despite being supportive of the more granular approval process, the CBA has concerns on the treatment of positions that are not in an approved model framework. In particular, there are concerns that legitimate hedges across desks may not be recognized if one desk is not approved and has a position that is a legitimate hedge to an approved desk position. This could be avoided if the unapproved desk results flow through the model, in addition to the standardized approach charge for the unapproved desk.

- A desk-level approach might result in different capital treatment for the same product between desks resulting in potential arbitrage. Furthermore, there is the potential for arbitrage between modelled and standardized treatments if the modelled treatment is not particularly advantageous.

- Having a desk-level approach will introduce more complexity and will impact a bank's risk governance structure.

- Banks have a number of desks: an overly high level of granularity for desk approval/model revocation process may be cumbersome.

- There are inherent conceptual issues associated with combining P&L, which is a daily measure, and the liquidity horizon, which is associated with a longer horizon and is balance-sheet oriented.

- Regulatory approval and review process will be a limiting factor in the desk-level application due to expanding scope of model review process and anticipated regulatory resourcing constraints.

- The Committee's desk-level approach should be aligned with the desk-level approach that is ultimately adopted in the Volcker Rule.

- There are material conceptual and operational challenges associated with desk level approval. The proposed desk-level model approval concept could cause inconsistency in capital treatment for a particular product (e.g., approved for some desks but not for others).

- The desk-level model approval concept will impose significant challenges for supervisory resources, particularly for supervisors with a reliance-based approach to model review/approval. In addition, to meet the stated goal of comparability, supervisors will need to mandate organizational structures for trading operations.

Requested Clarification

- It is unclear whether there will be a hierarchy of approvals on a risk-factor, desk/business, or product level, or some combination thereof.

- The two types of P&L on page 31 are not clearly defined.

Question 5 – What are commenters' views on the merits of the "direct" and "indirect" approaches to deliver the Committee's objectives of calibrating the framework to a period of significant financial stress?

- Both the "direct" and "indirect" approaches would inevitably require approximations. However, it seems that the "indirect approach" would require more assumptions and approximations than the "direct" approach. This would provide a measure that is driven by today's ES measure, and would therefore be more appropriate for backtesting.

- For calibration of the stress period, the direct method offers less room for subjective interpretation than the indirect method, driving greater consistency across financial institutions and jurisdictions.

- The indirect method appears as a tractable solution, but a "validity check for the stress period identification" is likely required, thereby equating the indirect to the direct method.

Requested Clarification

- The CBA wishes to seek greater clarification with respect to how the indirect approach is defined in Annex 5.

Question 6 - What are commenters' views on the merits of the desk-based and risk-factor-based aggregation mechanisms to deliver the Committee's objectives of constraining diversification benefits?

Desk Based

- There may be an issue with the capital depending on how the desk structure is organized. Specifically, if capital is at the desk level then clearly it would be favourable to have fewer desks, and this may contradict how the risk should be managed.

- The desk-level model approval concept will impose significant challenges for supervisory resources, particularly for supervisors with a reliance-based approach to model review/approval. In addition, to meet the stated goal of comparability, supervisors will need to mandate organizational structures for trading operations.

- We are concerned that the BCBS would need to mandate the organizational structure for banks (referred to on page 33, "The Committee envisages that regulators and bank supervisors would need to compare and contrast trading desk structures across banks with similar activities…").

Risk Factor Based

- The CBA prefers risk-factor-based aggregation since it creates a level playing field amongst banks while also providing a clearer oversight process for regulators. In most cases the distinction would likely be minimal, but there are certain cases where determining the "dominant" risk factor at the desk level would be challenging and artificial.

Diversification

- Although we understand the need to limit diversification benefits, we feel that there are several technical challenges with the proposed approach:

    - The formula that is presented in the document requires a determination of whether the bank is long or short a particular risk factor. There are many examples that would in practical application make this very difficult (simple example being a long-short IR curve trade, or even long-short IG credit versus high yield). The concept of long or short would therefore end up being too subjective and would potentially lead to unstable capital results.

    - The specification of the cross risk factor correlations would provide a significant challenge. For example, the correlation between volatilities of two broad based risk factors could be different than the correlation of the underlying risk factors.

- An alternative to regulatory prescribed correlations could be to simply limit the amount of diversification benefit that the bank recognized. This could be achieved as a simple rule to scale the difference between the fully diversified ES against the maximal conservative sum across the risk factors, and this could for example be based on bank level backtesting results.

- Banks actively manage portfolios of risk exactly because they yield a lower risk profile than by viewing them on a stand alone basis. Disincentives should not be created to diversifying or undertaking portfolio offsets (e.g., macro long interest rates against credit positions or using an FX hedge against a foreign sovereign government bond credit position). Setting a framework in which firms must measure portfolio diversification impacts under stress or in which firms qualify and report to regulators the capital benefit achieved through them should be considered.

Questions

- What will be the methodology for determining prescribed correlations? Where do banks obtain data for Basel defined correlations? What if the correlations do not hold?

Requested Clarification

- Calculation and aggregation of capital requirements across risk (formula (1), page 40) assumes interplay of risk measures calculated at different liquidity horizons. It is not clear what meaning could be attributed to the final number.

Question 7 - How can regulators ensure robust supervision of integrated market and credit risk modelling? In particular, how would an integrated modelling approach affect other elements of the proposed framework (e.g. the choice of the quantile parameter for ES, the P&L attribution and back testing processes, etc)?

Integrated market and credit risk modelling

Counterparty credit risk and "CVA"

- The CBA believes the complexities around an integrated market and credit risk model are significant and don't feel that this goal is achievable within this framework.

- Depending how the framework is ultimately implemented, there is a significant chance of double counting credit risk. For example, if credit spreads require long liquidity horizons, then this together with a stressed calibration would result in large credit spread shocks being applied. This could potentially capture most of the credit risk of debt instruments in the market risk framework, and the residual credit risk may be small. The overall framework should ensure this double counting is avoided.

- In order to integrate credit and market risk measures in the trading book, application of liquidity horizons should be consistent. For example the 1-year constant level of risk assumption used in IRC would be inconsistent with the proposed trading book framework, which is meant to assign horizons on the basis of market liquidity.

- The current framework for CVA capital under Basel III would penalize a bank for having non-credit related market risk hedges, since the hedges would attract capital and the fact that the CVA balance itself was hedged would not be reflected in the capital requirement.

- One way to integrate counterparty credit risk would be to include counterparty risk exposure as part of the IRC framework. This could be accomplished by determining EAD through either an IMM or CEM approach, and then include this as part of the (possibly revised) IRC model. This would replace the current IRB approach for CCR (and capture concentration risk in CCR and debt securities) in a more consistent manner. Furthermore, this could facilitate including CVA as part of the overall market risk framework. This would include capturing the non-credit related market risks (such as FX or IR) embedded in the firm's CVA calculation that are currently not included in the Basel III framework.

Questions

- If the "integrated" approach to credit risk modelling is taken, would the same time horizon and confidence level be used for "migration & default" and ES?

<u>Question 8</u> - What are the likely operational constraints with moving from VaR to ES, including any challenges in delivering robust back testing, and how might these be best overcome?

- The CBA acknowledges the BCBS's desire to move away from VaR and towards ES as a risk measure.

- The ES metric has a strong focus on tail events. While calculating ES at a 99% confidence level may provide a good measure of tail risk, we believe such a metric's usefulness would be limited as an ongoing risk tool. While a metric calculated at the 95% confidence level would be less representative of tail risk, we believe it would result in a more robust and less volatile capital estimates. A lower confidence level would also provide a larger number of excess P&L observations on which to take the average, and would therefore provide a more stable and meaningful measure. Backtesting ES at a lower level would also provide more meaningful results.

- The ES measure at a higher confidence level would pose significant challenges in backtesting as there would be limited data representing tail risk. And it is unclear whether the very limited historical loss data is representative of the tail loss distribution. The difficulty in obtaining adequate data would also likely increase over time as banks encounter difficulties in obtaining data for new products and businesses in stress periods. Thus, over time, ES models would be less responsive to changes in portfolio composition under stressed conditions.

- While implementing ES is tactically straightforward, the process is far more data intensive than VaR. CBA members anticipate operational challenges with data, which will lead to decreased output stability, and increased data complexity. As for backtesting, the ES metric is of limited use since the current VaR based approach can be intuitively generalized to loss-in-100 days, whereas ES cannot. As the ES confidence level becomes lower, a lot of these issues would be resolved.

<u>Questions</u>

- What is the expectation regarding improvements to existing VaR models?

- How is stress-period ES to be backtested?

- If banks are forced to use one particular modelling approach for ES (e.g., Monte Carlo simulation or historical simulation, whichever is best suited), do we increase systemic risk?

- Would the definition of risk classes and sub-classes be provided by supervisors or determined by banks? How are secondary risk factors treated?

- How many multipliers can be applied under the desk-level approval framework?

- What is the definition of actual P&L for backtesting (e.g., clean vs. dirty P&L)?

<u>Question 9 and 10</u> - Which of the two approaches better meets the Committee's objectives for a revised standardized approach? Do you propose any amendments to these approaches?

- The CBA would need further information to be able to comment on whether it prefers the fuller risk factor approach or the partial risk factor approach.

- However, the fuller risk factor approach looks like a quasi-model approach which requires supervisors to specify many model aspects (e.g., stress period, risk factors, shocks, standardized product (instrument) list, aggregation method, correlation, oversight of pricing models). This highlights the issue of the challenge placed on supervisors to adopt this approach with limited resources.

- While the partial risk factor approach appears to be the simpler approach, there are some concerns on the complexity involved in reasonably capturing the risk of more complex products. Even for less complex products (e.g., amortizing swaps), it is not clear that this would be operationally simple to implement (i.e., would require a full capture of all cash flows for the vertex method discussed).