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Wayne Byers
Secretary General
Basel Committee on Banking Supervision
Bank for International Settlements
Centralbahnplatz 2
CH-4002 Basel
Switzerland

Sent by email to baselcommittee@bis.org

Consultative document: Fundamental review of the trading book

Dear Mr. Byers,

This letter contains UBS's response to the Consultative document: Fundamental review of the trading book ("FRTB") issued by the Basel Committee on Banking Supervision ("BCBS") in May 2012, and for which public comment was sought.

UBS shares the desire of the BCBS to seek strengthened capital standards and a more resilient banking sector, and sees the proposals set out in the review as making progress in this direction. However, we believe that the proposals would benefit from further development and refinement. We therefore welcome the opportunity to respond to the review and believe that the proposals for capital standards which are ultimately adopted will benefit substantially from further dialog and consultation with the industry.

We support the BCBS view that capital standards required by Basel II for trading activities were found wanting during the financial crisis, but that the initial response of the BCBS in adopting Basel 2.5 resulted in a framework for capital standards which has left gaps and created overlaps and much double-counting of risks, and has resulted in a distorted competitive playing-field. We therefore support the BCBS attempt to achieve a regulatory framework which delivers appropriate capital underpinning for risk, and which may be implemented consistently by supervisors to result in comparable levels of capital across jurisdictions.

The remainder of this letter responds to the particular proposals of the FRTB, with the sections following the ordering in the Executive Summary of the consultative document.

The Trading Book/Banking Book Boundary

The BCBS has highlighted the Trading Book/Banking Book boundary as an area of concern and provided two approaches for consideration in categorizing instruments. In relation to this question there are two broad points we would like to provide comment on:
- Principles for the boundary
- Permeability of the boundary

Principles for the Boundary
UBS believes that the primary consideration for capital treatment should be that it follow the manner in which positions are actually risk managed, in order to motivate good risk management discipline with respect to hedging of risks. Between the Trading Evidence-based boundary and the Valuation-based boundary that the BCBS proposes we believe that the principles of the Valuation-based boundary are more consistent and hold more merit. We believe that if positions are exposed to fair value changes on a regular basis, the capital framework should aim to capture that risk. Although the market risk of less-liquid financial instruments is harder to measure, it should not be ignored. The Trading Evidence-based approach would capture risks of less-liquid positions in Banking Book charges only if they are long cash positions, but not otherwise, as the regulatory capital charges for the Banking Book are currently written.

A second disadvantage of the Trading Evidence-based approach is that since the Trading Book charges are in many cases now higher than those of the Banking Book, the Trading Evidence-based approach may potentially result in reduced charges at the same time as liquidity in those instruments is declining and risks are therefore increasing.

However, although UBS believes that adoption of the Valuation-based boundary is a step in the right direction, the proposal as currently drafted is incomplete. For example, there will need to be an exemption from Trading Book treatment for fair-valued hedges of Banking Book positions which are accrual accounted, if there is not to be artificial distortion of capital levels resulting from bifurcation of treatment of a position versus its hedges. Furthermore, it is unclear what the Banking Book treatment of short positions that are not hedges for positions on the balance sheet would be, nor what the treatment would be for exotic derivatives.

The main disadvantage we see for adoption of the Valuation-based approach is the possibility of inconsistencies arising across jurisdictions as a result of different accounting standards, but we regard this as the lesser of the evils between the two alternatives.

Permeability of the boundary
Instrument and risk liquidity are not static parameters, set once-and-for-all; the liquidity of particular instruments, and the ability to hedge risks, changes through time, and as it does so it will impact banks' trading intent with respect to those positions. Whilst we recognize the need for the proper controls to be in place in order to prevent arbitrage of the capital rules**,** UBS feels strongly that instruments should be allowed to move between Banking Book and Trading Book. In any event, we believe that arbitrage is best prevented through the alignment of the Trading Book and Banking Book capital levels, rather than through imposing an impermeable boundary between the two.

If there were an outright prohibition to move between the Trading and Banking Books many issues would arise. As seen during the financial crisis, instruments that trade readily during normal conditions might quickly become illiquid and may not receive the appropriate capital treatment if they were to remain in the Trading Book. Likewise, new products which are initially little-traded will necessarily be illiquid. A Trading Evidence-based boundary coupled with impermeability would in all likelihood result in the stifling-at-birth of many products which would have genuine benefits in serving the needs of a bank's clients, with the concomitant reduction in the economic growth which would otherwise result from product innovation.

However, our prior points regarding support for a capital framework that is broadly aligned with accounting treatment substantially address this issue. The FRTB proposals to be adopted by the BCBS should build-in from the outset an appropriate treatment for fair-valued positions that are not highly liquid.

Stressed Calibration

UBS recognizes and applauds the BCBS desire to ensure that there is sufficient regulatory capital to cover periods of significant market stress, however we believe that the FRTB proposals to achieve this by seeking to calibrate the capital measure to a fixed stressful period from the past are fraught with difficulty and are likely to fall victim to the problem of "fighting the last war", in the sense that the particular stress event chosen from the past upon which to base the calibration may not be at all relevant for a future event. Furthermore, for purposes of ensuring the completeness of position data capture and completeness of risk representation in the modeled risk measure it is necessary to perform a P&L explain (attribution) and model back-testing using model parameterization calibrated to current market conditions, not stressed market conditions.

We therefore recommend that the BCBS instead strengthen banks' Pillar II internal capital adequacy assessment processes, through requiring the use of a combination of statistical and stress scenario models tailored towards each bank's specific vulnerabilities, to identify capital need during stressed market environments.

Moving from Value-at-Risk to Expected Shortfall

UBS supports the BCBS proposal to replace VaR with ES as the basis of the regulatory capital underpinning for market risk. Recognizing the challenges in obtaining sufficient historical data to enable the accurate measurement of the loss-tail, however, and in order to have sufficient data points to facilitate meaningful back-testing, we propose that the ES measure be parameterized at a 95% Confidence Level. To the extent that the BCBS is concerned that the overall level of capital generated by the model is sufficient to cover extreme stress events, we recommend that this be achieved by scaling the 95% C.L. measure by an appropriate capital multiplier, rather than by attempting to measure ES at a higher C.L.

A comprehensive incorporation of the risk of market illiquidity

UBS acknowledges the BCBS concern that the risk of market illiquidity be incorporated into the regulatory capital measure and we support the need to appropriately underpin this risk, however we believe that the proposals contained within the FRTB are fundamentally flawed. Bucketing positions according to liquidity horizons, calculating either VaR or ES within each bucket, and then attempting to aggregate the (scaled) resulting measures will necessarily destroy the correlation structure between risk factors and positions necessary to calculate a meaningful aggregate risk figure. This problem is particularly acute in respect of the (liquid) hedges of (the liquid risk factors of) illiquid positions, where breaking apart the regulatory risk treatment of a position and its hedge will necessarily result in an excessive capital underpinning and will, therefore, provide a disincentive to hedge, which result the BCBS surely does not wish to achieve.

We also believe that incorporating liquidity horizons and jumps in liquidity premia into the internal models based approach is contrary to the goal of the BCBS to more-closely align the standardized approach with the internal models based approach, because the resulting final capital figure will be highly sensitive to the assigned liquidity horizons, which will differ by risk factor and between financial institutions. Likewise, there is currently no industry consensus on how jumps in liquidity premia can and should be captured within a VaR model. A requirement to include such jumps in internal models is therefore likely to result in further differentiation between banks' internal models, rendering it ever more difficult to devise a standardized approach that is more-closely aligned with internal models.

We strongly believe that it is necessary that the basis of the regulatory capital underpinning be a holistic and coherent measure of risk. We therefore recommend that instead of attempting to embed multiple risk-horizons within a single risk measure the FRTB instead achieves the goal of ensuring that there is sufficient capital underpinning for Trading Book positions by supplementing the capital charge based on VaR or ES for a single coherent risk horizon with an additional capital

charge which represents the cost of neutralizing all the material market risks over a time horizon which represents the likely period required to exit, or otherwise mitigate, the risks of each position during a stressed market environment. Essentially this is equivalent to calculating the bid-offer spread for each position during a stressed environment, and could adopt a bucketing scheme for positions of different liquidity similar to that proposed in the FRTB. Note, however, that to avoid double-counting the supplementary capital charge should be based on the additional cost of exiting positions in a stressed environment, after already taking account of bid-offer and other prudential valuation adjustments intended to cover the additional costs of exiting concentrated positions.

Treatment of hedging and diversification

UBS acknowledges the BCBS concern about the assumption of excessive diversification benefits and effectiveness of hedging during times of stress. However, we are also mindful of the need for the regulatory capital framework to motivate banks to conduct effective hedging activity, and employ diversified business models. We are fearful that the proposals of the FRTB may create perverse incentives in this regard. With the effects of stressed market environments being addressed through effective capital multipliers applied to the basic ES measure and supplementary capital held specifically to incorporate the risk of market illiquidity, we question whether restricting hedging and diversification benefits would not be double-counting these risks.

Relationship between internal models-based and standardized approaches

UBS acknowledges the BCBS concern that the current regulatory capital framework for the Trading Book has become too reliant on banks' internal models, and that potentially there may be large differences between standardized and internal models-based capital requirements. We also recognize that these large differences may make it difficult for supervisors to withdraw model recognition, and therefore we are supportive of the BCBS desire to make approval of banks' internal models on a much more granular basis than has been the case until now. However, we believe that this should be achieved by ensuring much more rigorous and granular P&L explain and back-testing procedures, and, in the event that a bank's model in respect of a particular asset class or portfolio demonstrates inadequate performance using these metrics, then internal model approval should be withdrawn for that asset class or portfolio, for which instead the bank should be required to calculate regulatory capital using a regulatory-prescribed standard model.

Sympathetic though we are to the BCBS desire to reduce the differences between the capital requirements produced by the two types of models by making the standard models more risk-sensitive, we believe that in practice this will prove to be unachievable, leaving supervisors in a position where, in some cases, complex positions held by banks will be inadequately capitalized, whereas, in other cases, capital levels generated by simplistic models will be much too large, leading to the suppression of the development of products which might otherwise be of benefit to clients and so conducive for economic growth.

Likewise, we do not support the FRTB proposals that banks should be required to calculate capital requirements using both sophisticated internal models and standard models, nor that the output of standard models should represent a floor or surcharge to the model based approach. Notwithstanding the weaknesses of models revealed by the financial crisis, we believe that the appropriate response is to raise modeling standards, and as argued before, require much more rigorous and granular P&L explain and back-testing capability in order to demonstrate the completeness of data capture and risk representation in internal models. Standardized models should then be introduced only on a product-by-product basis, where approval for use of internal models has been withdrawn due to inadequate performance. Using the output of standard models to determine capital floors will necessarily de-motivate any bank from making further investment in its internal modeling capability, as will a requirement that banks wishing to use more-sophisticated modeling also invest in the capability to perform standard model calculations, which

otherwise they will have no intention of using for any risk management purpose, and the expense of which will detract from the investment they make in superior models.

The unintended consequence of the FTRB proposals as they stand will be to reduce investment in raising model standards, and to reduce incentives to hedge to mitigate exposures, in cases where the standard models do not appropriately recognize hedging benefit, neither of which outcome the BCBS should surely wish to see.

Revised models-based approach

UBS is supportive of the BCBS proposals to strengthen requirements for defining the scope of portfolios eligible for internal models treatment and to strengthen internal model standards to ensure that the full extent of trading book risk is captured from a regulatory capital perspective. In particular, we are supportive of the proposals to leverage much more granular P&L explain/attribution and back-testing procedures in order to determine model efficacy.

However, whilst we are also supportive of the proposal to move to an Expected Shortfall metric, measured at an appropriate confidence level and scaled appropriately so as to ensure sufficient capital underpinning in a stressed market environment, we do not believe that limiting diversification benefit in models is an effective procedure. Notwithstanding the fact that it is widely observed that in stressed markets correlations may change markedly, resulting in material changes in diversification, were the BCBS to introduce this requirement, it is likely to have the perverse consequence of reducing banks' incentive to mitigate exposures through hedging, which would result in an increase in risk and in actual P&L volatility. Such an action would, in all likelihood, cause banks to hold similarly un-hedged positions, contributing significantly to systemic risk, whilst also increasing banks idiosyncratic risk exposures, contrary to the aims of supervisors. Furthermore, models used to determine the appropriate capital underpinning for Trading Book activity must have the property of monotonicity; i.e. higher levels of actual risk-taking must always yield higher levels of capital, and *vice versa*.

Revised standardized approach

Although, as explained above, we do not support the FRTB proposals to adopt the standardized approach universally for all banks to provide a capital floor, we also wish to comment on one particular aspect of the proposals, namely that a standardized approach could be used as the basis of harmonized reporting of risk positions, which could then be used to gain a macro-prudential view of market risks across the banking system. We believe that this approach should be used with extreme caution, for the following reason. Use of any model necessarily motivates a bank to reduce its risk exposures as measured using that model (especially if the output of that model is to be used to create a capital floor). To the extent that standardized models were required for all banks, the inadvertent consequence would be to motivate all banks to hold positions which were more-closely aligned, which could create very material systemic risk, exactly the opposite result from that desired by supervisors.

Areas outside the scope of proposals: Interest rate risk in the Banking Book

UBS believes that the possible arbitrage of capital rules across the Trading Book/Banking Book boundary is a genuine concern, and is supportive of BCBS efforts to ensure that interest rate risk in the banking book is appropriately underpinned with capital. We recognize that there are certain difficulties with determining interest rate exposure for financial instruments without contractual maturity, however we believe that most banks invest considerable effort in modeling these effects as part of their asset-liability management processes, which should be the basis for appropriate regulatory capital underpinning, and we would encourage the BCBS to further explore this issue with the industry.

Areas outside the scope of proposals: Interaction of market and counterparty risk

UBS believes that CVA risk, as the market-component of counterparty credit risk, is most-appropriately risk managed alongside a bank's other market risk exposures. Since our fundamental belief is that the calculation of regulatory capital underpinning should follow the risk management practice if not to distort risk management or create perverse incentives with respect to hedging and risk mitigation, we believe that CVA risk should be captured in an integrated fashion together with the other forms of market risk within the market risk framework.

If you have any questions on the matters we have raised in this letter or would like to discuss any of them further with us please contact Dr. Mattia Rattaggi.

Yours sincerely,

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