

30 July 2012

**UniCredit reply
to Basel Committee on
Fundamental Review of the Trading Book**

UniCredit is a major international financial institution with strong roots in 22 European countries, active in approximately 50 markets, with about 9.500 branches and 150.000 employees. UniCredit is among the top market players in Italy, Austria, Poland and Germany. In the CEE region, UniCredit operates the largest international banking network with around 4.000 branches and outlets. UniCredit Group is a market leader in the CEE region. Furthermore UniCredit was recently recognized as Global Systemically Important Bank.

Executive Summary

In general, we notice that several elements of the accounting and prudential regulations are currently in the process of being amended (IFRS 9 with changes to the accounting classification and measurement, EU Capital Requirement Regulation and Directive with changes in prudential filter regulation, this consultation), with cross-relevant issues and implementation timing which are not always aligned. We believe that it is the responsibility of the BCBS to foster a coherent approach to be consistently followed by all relevant legislators, regulators and standard setters, taking also into account their interdependencies and cumulative impact on the financial industry, including potential systemic impacts.

- Concerning the **boundary** proposals [Question 1], Unicredit:

- agrees with the principle that the market risk capital charge should only capitalise changes in fair value having a direct impact on profit and loss and therefore is supportive of a trading intent-based boundary. The proposed trading **evidence-based boundary** appears in line with both current trading intent-based boundary as well as with banks' core trading business model and risk management/ control processes;
- considers that the current-boundary proposal, that includes the risk of market illiquidity, is likely to prevent the potential arbitrage problems identified with the current boundary. However it may cause the banking book to be cheaper than the trading book, from a regulatory capital perspective;
- is concerned that the proposal to make the boundary between the trading book and the banking book impermeable could pose some issues. If the business model and/or risk management substantially changes, then it should be possible to change categorization, as future IFRS9 accounting rules are likely to allow.

- UniCredit is in favour of the introduction of the concept of market illiquidity as a kind of penalty for exposures on very complex and illiquid products. From an operational standpoint we agree with the proposal to base the **differentiation of market liquidity** across the trading book on the concept of liquidity horizon but would limit its application only to very complex products (e.g. structured credit products), allowing banks to leverage the investments made (and the skill sets acquired) for the implementation of Basel 2.5. [Question 2]

- The proposal requiring **mandatory calculation of the standardised approach** by all banks

implies considerable implementation and maintenance costs since such processes are usually no longer maintained in those institutions that have already adopted the Internal Model Approach. Moreover if standard rules are not conservatively calibrated, they will result in lower capital requirements and would therefore discourage banks from building internal models at all, resulting in a step backwards. [Question 3].

- Concerning the proposed **desk-level approach** to achieve a more granular model approval process, UniCredit is of the view that such model revocation should not happen abruptly but rather after a grace period for correction. It should also be clarified what the treatment is of the “unapproved” desks. In fact, the binary outcome may imply that a small violation leads to a big penalty, unless the sanction is gradual and well calibrated. [Question 4].

- Among the “direct” and “**indirect**” **approaches** to deliver the BCBS’s objectives of calibrating the framework to a period of significant financial stress, Unicredit prefers the indirect approach to the calibration of the expected shortfall (“ES”) measure to a stressed period. [Question 5].

- UniCredit is concerned that the proposed approach to constrain **diversification benefits** could result in potentially wrong hedging incentives and therefore possibly making the banking system more, rather than less, risky [Question 6].

- While from a risk perspective UniCredit considers desirable a model integrating market and credit risks, it is difficult to support the new BCBS proposal as it would prevent banks from leveraging the investments made and the skill sets acquired for the implementation of Basel 2.5 [Question 7].

- Concerning the move from the VaR to the ES measures, both have pros and cons. Some suggestions are provided to overcome some of the cons and move to a ES measure computed at the 95th percentile. [Question 8].

- Concerning the two proposed options to **review the standardised approach**, both have pros and cons; the full factor approach is probably preferable but still remain complex, not fully coherent and ultimately inferior to a well designed internal approach [Question 9-10].

UniCredit answers for the Consultation

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

It is debatable whether at this stage it is worth expressing a fully fledged view about the valuation-based boundary approach, considering the lack of clarity about the capital model that will be finally applicable to the different portions of the resulting 'enlarged' trading book.

Nevertheless, UniCredit agrees with the principle that the market risk capital charge should only capitalise changes in fair value having a direct impact on profit and loss and therefore, in general, supportive of a trading intent based boundary.

Indeed, if the Committee addresses market liquidity risk, as proposed by the Fundamental Review of the Trading Book (FRTB), then arbitrage problems identified with the current boundary¹ might either disappear, as expected by the Regulators, or, as feared by the banking industry, cause the banking book to be cheaper than the trading book, from a regulatory capital perspective.

Between the proposal presented in the document, the trading evidence-based boundary appears more in line both with current trading intent-based boundary and banks' core trading business model and risk management/ control processes.

In addition, the valuation-based boundary would "move" large exposures not actively managed and hedged/rebalanced into the trading book for regulatory capital calculation.

As a result, actual trading exposures² will then be hidden by the impact of such exposures, both for senior management and experts (investors / analysts). In particular we refer to the following:

- 1) IAS 39 AFS investments, where a prudential filter is applied (e.g. sovereign bonds in the liquidity reserve portfolio for Italian banks. Going forward the same will apply to IFRS 9 FVOCI portfolio.
- 2) Fair Value Option portfolios for which the FV measurement is adopted in order to solve accounting mismatches, arising from the economic link of these investments with other elements of the banking book.

3) Prospectively, IFRS 9 will require to classify at FVtPL financial instruments irrespective of the business model/intent, simply because of their financial features failing to match the definition of the standard (solely payment of principal and interest.)

At the same time, the proposal to make the boundary between the trading book and the banking book impermeable can pose some issues.

In general, if the business model and/or risk management substantially changes, then it should be possible to change categorization.

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

The incorporation of the risk of market illiquidity in banks' regulatory capital requirements for trading portfolios is conducive to considerable costs and efforts for implementation (and maintenance). In this respect, a cost benefit analysis shared with the industry would be welcome.

UniCredit is in favour of the proposal to base the differentiation of market liquidity across the trading book on the concept of liquidity horizon, allowing banks to leverage the investments made (and the skill sets acquired) for the implementation of Basel 2.5.

At the same time, many practical points need to be thoroughly evaluated in order to properly assess the impact. In particular, both the granularity of the liquidity buckets specification and the way in which

¹ The Committee claims the current definition of the regulatory boundary to be a source of major differences in capital requirements against similar types of risk on either side of the boundary.

² Positions to be hedged and/or exited within a short time horizon.

such liquidity categorization will be evidenced, justified and supervised need to be defined in such a way that they both serve the purpose without imposing impossible restrictions to the business. In addition, if more a proper assessment of the liquidity has been put in place within the internal models (taking into account the liquidity of the financial instruments as well as the market conditions) this should not be prevented, as currently suggested by the BCBS, by requiring the assessment to be performed exclusively by the risk factors.

Moreover, it is expected to be very difficult to define clear boundaries for the different buckets, thereby creating possible arbitrage possibilities across the buckets.

Among the alternatives mentioned in the document, in order to incorporate varying liquidity horizon within the regulatory market risk metric, a unified weighted-average liquidity horizon does not really seem to distinguish between the liquid and illiquid positions/factors and therefore justify the needed implementation costs/efforts.

In addition, to simplify the task and to facilitate comparability across banks, we would favour the introduction of the concept of market illiquidity only for very complex products (e.g. structured credit products), leaving standard financial instruments aside. Therefore the liquidity horizon adjustment would be essentially treated as a kind of penalty for exposures on very complex and illiquid products.

Last, it should be recognized that there is also a valuation aspect relating to market risk liquidity. It is important to take into account that there is already a portion of risk of market illiquidity that is captured via appropriate accounting valuation adjustment (i.e. Illiquidity FVA), recorded through the profit and loss, hence it is necessary to avoid any double counting of the price of liquidity risk also taking into account market liquidity considerations already embedded in the required stressed parameter calibration and the ES measure by nature.

3. [What are commenters' views on the proposed regime to strengthen the relationship between the standardised and internal models-based approaches?](#)

The proposal presented in the document follows a general theme of back-stopping models-based capital requirements by deliberately less risk sensitive calculations. Banks that invested time and relevant financial resources in systems development, human resources and data collections to be compliant would be the most penalized.

As already stated above, requiring mandatory calculation of the standardised approach by all banks implies considerable implementation and maintenance costs and efforts.

Risk measurement procedures, based upon the standardized approach for the computation of market risk capital charges, shall be re-implemented. Indeed, such processes are usually not maintained in those institutions that have already adopted the Internal Model Approach.

In general, floors which are based on standard rules lack of risk sensitivity and therefore result in reduced risk management capabilities. In addition, the use of floors based on the standardized method will cause a disincentive for both banks from striving to improve their risk management and their internal models but also complicate considerably their supervision.

An approach where a mixture (e.g. 2/3 versus 1/3) of standardised approach and internal model capital requirement is used would still give banks an incentive to keep up high risk management standards and apply for an IMM while at the same time the capital from IMM and standard method do not deviate too much.

Last, if standard rules are not conservatively calibrated, they will result in lower capital requirements and would therefore discourage banks from building internal models at all.

It has to be noted that most changes under Basel 2.5 and now Basel 3 focus on internal models and cause increasing capital requirements under the internal models' approaches, while leaving the standardised approaches at the same time basically without revision. This development leads to a relative advantage for banks using the standardised approach as their RWAs are comparatively stable.

This loss of incentive for internal models will go along with a reduced standard for risk management and thus will definitely be a step backwards.

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 proposal presented in the document will potentially result in banks having internal model only for some trading desks.

In addition, breaking the model approval at the trading desk level will allow model approval to be "turned-off" more easily than at present for specific trading desks. This will inter alia imply slippages in the profit and loss explanation or in the forecast quality of the model which will impact on the scope of the internal model approach. As a consequence the capital planning for the trading book (given the resulting increased uncertainty on regulatory capital figures) will no longer be effective.

Another drawback to be addressed refers to the capital requirements level. Based on the BCBS desk-level approach, the organisational structure of the different trading desks will imply a potential impact in regulatory capital for banks and will become a strategic driver from the overall banking perspective (and consequent capital perspective).

Moreover, the assessment of the model performance at the trading desk level is required to make sure that all the material drivers of the bank's actual profit and loss are captured in the bank's risk management model. In this respect, the trading desk level has been currently identified by the competent authorities as the relevant dimension of analysis in common between risk and profitability reporting. Other relevant dimensions of the P&L explanation, such as asset class, risk factor category, etc. that allow the same tests of accuracy of the internal model, but without having the same invasive impact on the trading business organization, could be considered as an alternative. This should be similar to the approach for the assessment of FX and commodity risk positions in the banking book.

Against this background, we believe model revocation should not happen abruptly but rather after a grace period for correction. Indeed, a more gradual approach should be contemplated for trading desks that do not meet the requirements anymore, instead of the switch-off of the internal model. We deem a weighted average of the internal model and standard rules, whose weights are based on back testing results would allow the capital requirement to move smoothly to standard rules charge if the performance of the model deteriorates. A possible alternative solution would be to use 12 month average over the last 1 year for capital calculation. If standardised had to be applied for 5 out of 12 months, then this would mean that only 5/12 would be standardised.

Finally, it should also be clarified what the treatment of the "unapproved" desks is. In fact, the binary outcome may imply that a small violation leads to a big penalty, unless the sanction is gradual and well calibrated.

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?

In general, calibrating a measure of portfolio market risk to a stressed scenario is not really straightforward for a diversified portfolio, where basis risk is the main driver, as it is the case for most of real-life trading books. Indeed, a stress period calibration is suitable only for directional portfolios.

Against this complex background, among the alternatives presented in the document, we would prefer the indirect approach to the calibration of the expected shortfall ("ES") measure to a stressed period. Indeed, the indirect approach makes use of the current ES measure, calibrated to current market conditions, which can be more easily used to define the capital allocated by management to traders, therefore facilitating the fulfillment of the use test requirements and the embedment of the risk measures into the trading strategy and operational processes of the bank.

In general, we believe that a parametric or simulated distribution (e.g. fitting the tails with generalized

Pareto distributions and then sample from the new distribution - gluing empirical and Pareto distributions) would better capture tail risk, thus ensuring a better risk factor coverage and better ability to capture nonlinearities as well as comprehensive range of shocks.

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?

The requirements have two counterbalancing effects on diversification benefits depending on the model adopted by banks:

- reducing them (and hedging benefits as well) for banks with internal model permissions (through the use of prescribed correlations to constrain diversification);
- increasing them for banks adopting a standardized approach.

Severely limiting diversification among asset classes may actually discourage banks from pursuing a diversified business model.

Restricting hedging and diversification benefits via pre-imposed correlations across risk classes essentially means that regardless of portfolio composition within each risk class, the correlation across risk classes would be the same.

Straight classification of risk factors by type could be prone to ambiguities (e.g. local currency sovereign bond yields can be classified as interest rate or credit risk).

Finally, this approach may result in potentially wrong hedging incentives and therefore possibly making the banking system more, rather than less, risky.

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)?

In principle, UniCredit is in favour of the proposal towards an integrated market and credit risk modelling approach. Indeed, such an approach is deemed helpful to decrease the overlap between the various measures of the Basel 2.5 framework.

At the same time, we recognise that the use of partially non-established risk factor models, in conjunction with moving to expected shortfall in the presence of default loss distributions, featuring a very long thin tail into the high value side, can cause a significant model risk.

In addition, back testing in the "classical" sense is hardly feasible. In this respect, past oriented back testing (i.e., re-pricing of today's portfolio over previous time periods) seems a practical solution, though without capturing defaults. In any case, this would be mostly relevant in the context of a large definition of the trading book (i.e. the valuation-based boundary). In the case of a narrow definition, the primary driver of the charge should not be "credit-related" (in particular rating migration) but spread related.

Last, while from a risk perspective an integrated model is very much desirable, we would hesitate to support regulatory requirements for such a model instead of allowing banks to leverage the investments made (and the skill sets acquired) for the implementation of IRC and CRM.

8. 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?

Back testing the ES measure requires many more observations than back testing VaR. In instances

where the ES measure is obtained directly from VaR and gives the same signal as VaR (i.e. when VaR is sub additive), as it is the case for most of real-life trading books, it is better to use the VaR.

It is much harder to create formal tests for the ES measure than the coverage tests developed for VaR violations. The reason is that such a test would be a joint test of the accuracy of VaR and the expectation beyond VaR, so that errors in estimating VaR also have to be taken into account, implying that the inaccuracy in the ES back test procedure is likely to be much lower than that of VaR back test procedures such as coverage tests.

As an alternative, a lower percentile would be considered, as a more appropriate threshold to calculate the ES measure. In this respect, the ES measure computed at the 95th percentile will deliver a similar capital to VaR computed at the 99th percentile for moderately fat-tailed distributions, giving a larger number of excess P/L observations to average over for back testing purposes.

Notwithstanding the merits of ES, we note that economic capital is typically measured as a loss that is expected to occur with some given probability. This is the metric used for credit risk and for operational risk, where in fact tail risk is likely to be greater. If we move to an ES for market risk then it would be valuable to calculate the probability that capital is exhausted, therefore a VaR equivalent calculation should be contemplated.

Additionally, as the ES is calculated from the tails of the distribution, the number of scenarios has to be increased to obtain a stable measure. To obtain this large number of scenarios and also to capture the tail behaviour in a proper way, a Monte Carlo simulation-based setup is preferable to a historical one. However, the ES will depend highly on the model used for the tail dependence which will be hard to calibrate leading to an increase of model risk and an arbitrariness in the capital requirement.

All in all, in this framework, where ES will be calibrated to a stress period and will take into account the liquidity horizon, it can be argued that no capital multiplier is required at all.

9. Which of the two approaches better meets the Committee's objectives for a revised standardised approach?

The partial approach has the merits of being simple. However it is too heavily relying on very special and unrealistic assumptions (i.e. Gaussian and Taylor assumptions).

The full factor approach is probably preferable and more appropriate for a major bank's fully diversified portfolio, but at the same time it is very complicated and not a fully coherent model.

Indeed, implementation-wise the full factor approach could probably leverage more on the existing internal model infrastructure.

In both cases, we would suggest that competent authorities to pay due attention to calibration (i.e. QIS) so that firms always remains strongly motivated to improve their risk measurements.

10. Do commenters propose any amendments to these approaches?

In general both approaches should be properly and conservatively calibrated since they can never be as risk sensitive as an internal approach. Indeed, the proposed approaches do not meet both quantitative and qualitative criteria to be met by internal approaches and (until now) considered to be important by the competent authorities.

However, as internal models are calibrated to a stress period, it is definitely necessary to re-calibrate also the standard models to avoid a too large gap between the two approaches.

A QIS exercise should be conducted to assess the impact and identify areas that need refinement and other issues/concerns.

Contact people (name.surname@UniCredit.eu)

Regulatory Affairs / Public Affairs – Coordination Team and Reviewer

Micol Levi (Head)
Marco Laganà
Andrea Mantovani

CONTRIBUTORS

Group Risk Management (Key Contributor)

John Spillane – Head of Group Trading Risks
Andrea Cesaroni – Head of Market Risk Policies, Methodologies & Architecture (GRM Consultation Coordinator)

CIB (Key Contributor)

Guy Laffineur – Deputy Head of CIB Markets (CIB Consultation Coordinator)

Accounting

Arcangelo Vassallo – Head of Accounting
Chiara Del Prete – Head of Accounting Principles and Disclosure (Accounting Consultation Coordinator)

Capital management

Maurizio Cravero – Head of Capital Management
Simone Tufo – Head of Capital Optimisation (Capital Management Consultation Coordinator)

Public Affairs

Massimi Serena – Head of International Institutional Relations
Caracciolo Emma - Relations with Multilateral Organizations