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Basel Committee on Banking Supervision  
Bank for International Settlements  
Centralbahnplatz 2, CH-4002 Basel, SWITZERLAND

Paris, September 7<sup>th</sup> 2012

**BNP PARIBAS comments on the Basel Committee Consultative Document Fundamental review of the trading book (May 2012)**

Dear Sirs/Madam,

We fully support the Committee's objective to seek a more consistent framework for capturing and capitalizing trading risks and welcome the fundamental review undertaken to that effect. We believe the replacement of the Basel 2.5 patchwork of inconsistent capital charges by a more technically robust and coherent framework aiming at better capturing tail risk is the right policy direction and we strongly encourage the Committee to pursue this strategic orientation.

We wish however to express our overarching concern on the large disconnection between risk and capital that some Committee's proposals are likely to introduce.

We are particularly worried about two decisive points under consideration:

- The valuation-based boundary between trading and banking books, as relying on the accounting classification would create a strong dependency on standards that are still in flux, inconsistent across jurisdictions, strongly oriented towards market value and geared towards objectives that might be far away from prudential considerations.

Beyond the potential unintended consequences of the dependency on accounting standards, a valuation-based boundary would result notably in including in the prudential trading book portfolios that are available for sale but by no means actively managed (Examples of such portfolios include securities held to comply with the liquidity ratio requirements or strategic equity participations).

This would create a material disconnection between the prudential classification and how risks are actually managed. Ultimately, it would either artificially inflate the trading books or affect the way those risks are managed as banks would seek to reduce the volatility of the capital charge and hence deviate from their initial long-term management horizon.

**The right boundary between trading and banking books has to be based on the way risks are actually managed, as documented and evidenced by banks subject to strict governance with both internal and external controls (supervisors).**

- The general stance towards internal model “standardization” (e.g. through the use of prescribed correlations or the introduction of floors based on the standard method) that eventually makes those models simply not usable for day to day risk management.

From banks’ perspective, this shift away from the “use test” paradigm is extremely worrying because it will refrain them from investing in their risk management tools as resources will be drained by expensive regulatory models that are not necessarily useful from a risk management perspective.

From a macro prudential perspective, the benefits of such standardization to make RWAs fully comparable are completely outweighed by the systemic risk that would result from the herd behavior of banks implementing structurally identical and simplistic models.

The efforts undertaken since the crisis by the Prudential Authorities to enhance supervision through reinforced means and expertise, cross-checks and benchmarking are the right policy answer and should not be undermined by a race towards standardization.

**We believe it is crucial that the fundamental review result in a market risk framework that provides the right incentives for sound risk management and promote continuous improvement in risk measurement methodology, under the control of the supervisors.** As equally important, the framework should be flexible enough to reflect the changes in the market environment, including the emergence of new products and risks in a timely fashion.

Such objective can only be achieved if the framework can be/is effectively used for day-to-day risk management, performance measurement and resource allocation.

This by no means contradicts the macro prudential goal of ensuring sufficient capitalization of trading activities as conservatism can be introduced in a way that does not distort the relative magnitude of risks in the capital charges.

In other terms, we think the Committee’s objectives could be achieved while keeping the overarching principle of alignment between risk management and capital requirement, subject to fairly simple modifications of the proposals and closer supervision. Examples of such modifications include:

- An Expected Shortfall that is calibrated to current conditions and then scaled-up to a stressed level to achieve the desirable capital requirement outcome
- A factor-in of liquidity horizons that does not distort the P&L aggregation
- A partial recognition of actual diversification benefits rather than the use of prescribed correlations
- A more progressive downgrade to the standard approach in case of breach in the back- testing or the P&L attribution which would also remove the need for a floor.

Details of those proposals and illustrative examples are provided in Appendix 1.

We hope this principle will prevail and are willing to work closely with the Committee and the European Commission to that effect.

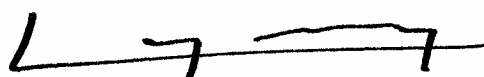
We also believe the Basel 3 proposals for CVA present various shortcomings both for banks marking CVA to market and those using rating-based approaches. As they stand, those proposals may have very perverse consequences due to the procyclicality of the CVA capital charge and the large incentives given to the use of CDS. We believe there is a real and urgent need to address those shortcomings and we are keen to work with the appropriate group within the Basel Committee to improve the proposals.

Finally, we recommend that the Basel Committee take a holistic view on all the existing and upcoming capital requirements and clarify their respective purpose in a way that there is no confusion or double counting. The minimum capital requirements under Basel 3 in CET1 will be more than tripled. Under Pillar 2, individual jurisdictions already have authority to impose capital add-ons on institutions over and above this minimum. Many are in the process of strengthening their approach to this; for example within Europe a systemic buffer and macro-prudential measures at national discretion are currently under discussion. Furthermore, the Basel Committee proposed enhanced capital rules for G-SIFIs and D-SIBs. We are also deeply concerned that all these rules focusing solely on higher capital only hamper economic growth and do not necessarily achieve financial stability. We encourage the Basel Committee to put emphasis on the importance of risk management, independent control and effective supervision rather than solely on the level of capital. In our view, this is vital for all these prudential measures to make sense and bear the expected outcome.

Our detailed answer to the Consultation's questions can be found underneath.

Yours sincerely

Christian LAJOIE

A handwritten signature in black ink, appearing to be 'Lajoie', written over a horizontal line.

### Trading book / Banking book boundary:

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

Basel 2.5 has materially increased capital requirements for risks in trading books, hence partially addressing the Committee's concern about potential arbitrages between the trading book and the banking book.

We believe it is therefore of the utmost importance in a post Basel 2.5 environment to get the classification right and the risk capitalized according to their real nature. This involves analyzing the risks **and how** they are managed.

As an illustration, a credit risk that is actively managed will be primarily exposed to a spread risk including for Jump-to-Default. However, should the very same exposure be held to maturity, such as an originated loan, the risk for the bank is that it becomes non-performing. So long as the exposure is performing, the change in a valuation spread is irrelevant.

The appropriate capital charges for the above described examples should not be the same; the trading book methodology should apply to the former, whereas the banking book methodology should apply to the latter.

Imposing a uniform treatment for this credit risk across trading and banking book would not solve out the arbitrage issue; it will on the contrary aggravate it since the capital requirements will necessarily be inadequate for one of the two business models (active management vs buy and hold). Actually, the only way to avoid arbitrage is to ensure that the right classification/capitalization applies to each risk.

In that respect, we are **supportive of a trading-evidenced boundary which classifies risk according to their nature and the way they are managed.**

#### The valuation-based boundary

Relying on the accounting classification as proposed in the valuation-based boundary would notably result in including in the prudential trading book transactions that are *not* actively managed such as available for sale securities, be they strategic equity investments or securities held to build up a liquidity reserve, or such as derivatives that economically hedge risks of the banking book but that can't qualify for hedge accounting.

This would create a material disconnection between the prudential classification and how the risks are actually managed, and at the end, artificially inflate the trading books. At a time where the Standard Implementation Group is seeking to promote consistency in RWAs implementation, a valuation-based boundary would go completely against this objective by creating a strong dependency towards accounting standards that are still evolving and inconsistent across jurisdictions. From a risk management perspective, market risk RWAs would be blurred to the extent of potentially hiding the risks in the actual trading books by considering non trading risks.

Ultimately, the way those positions are managed might be affected to reduce the volatility of the capital charge.

We understand that the Committee would consider a carve-out for financial instruments used to hedge other banking book risk positions as part of interest rate risk management. This could be a first mitigant to the concerns highlighted above to the extent that 'hedge' means 'economic hedge' rather than 'accounting hedge'. Indeed, GAAP, notably IFRS, may prevent from qualifying for hedge accounting

even though the transactions are effective in economically hedging interest rate risk in the banking book.

As an example, fixed rate debt securities, accounted for Available for Sale, may be invested in to economically hedge the interest rate exposure of non interest bearing, or low interest bearing, demand deposits: those securities should be considered in the banking book.

As another example, interest rate swaptions may be effective instruments to economically hedge prepayment risks embedded in fixed rate mortgages, though they may not qualify for hedge accounting in IFRS: those derivatives should be considered in the banking book.

The suggested carve-out described above would however not cover issues such as

- the Available For Sale portfolios that are used only for the liquidity buffer and that do not hedge interest rate risk in the banking book;
  - strategic equity investments that are part of banks industrial plans;
  - debt instruments with IFRS-wise embedded derivatives and their hedging derivative that are accounted for Held-for-Trading due to IFRS's requirements.

All those exposures are already capitalized as far their credit, equity and/or foreign exchange risk under the existing regulatory regime.

We believe the Committee's potential concerns around their valuation risk in a Basel 3 context where the prudential filters are progressively removed, would be better addressed specifically:

- either by a Pillar 2 treatment which would complement the existing Pillar 1 capital charge or
- by creating a dedicated prudential framework which would take into account the specificities of exposures that are subject to a valuation volatility though not managed under a real trading business model.

Should the fair value application extends materially due to the accounting standards evolution, the creation of this new (separate) prudential book would be the most sensible way to bridge the gap between the banking book and the trading book without jeopardizing their specificities and respective treatment.

#### The trading-evidence based boundary

An evidenced-based boundary built upon strong governance and enforceable policies and procedures would overcome most of the valuation-based boundary shortcomings.

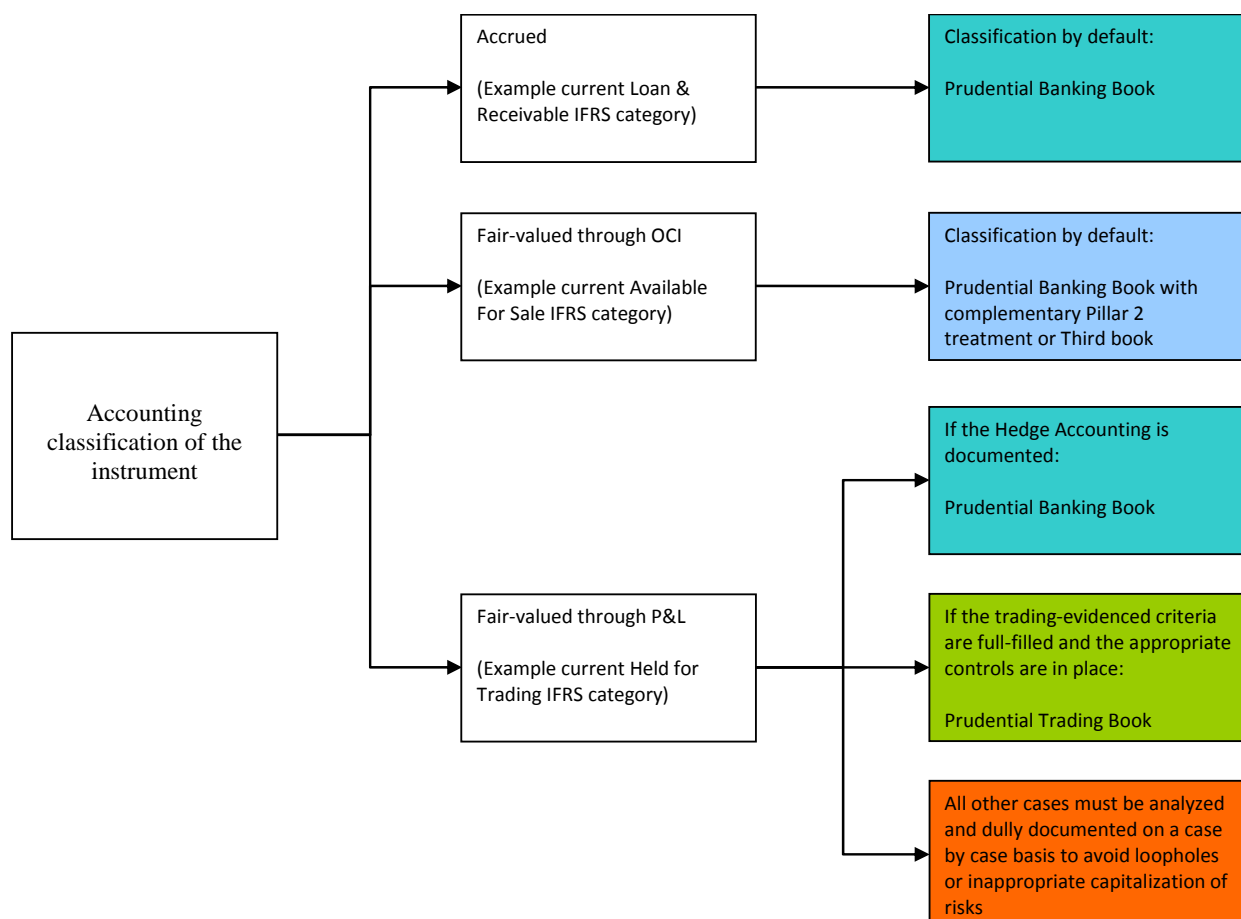
We fully support implementing such strong governance as it is consistent with sound risk management principles and contributes to set-up the right risk management framework around each activity.

Beyond the definition of trading intent, those policies and procedures should cover three types of aspects:

- the evidence and the feasibility of the trading intent,
- the valuation policy and
- the management rules of the trading book.

The current Basel framework already imposes such operational requirements as reminded in Appendix III and it is more a matter of ensuring their consistent, enforceable and robust implementation under the on-going control of supervisors and independent functions in the bank.

We believe that such an approach combined with the decision-making tree below would constitute a good compromise reconciling the objectives sought by the valuation-based and the trading-evidenced boundaries as it would contribute to ensure that there is no loophole in the positions classification and that exposures are capitalized according to the real nature of their risk.



Finally, we believe transfers from trading book to banking book should not be fully prohibited but could occur if exceptional circumstances warrant (for example if structural changes in the market leads to a change in the bank's business model making the former classification in breach with the trading book/banking book boundary policy). Such transfers should be irrevocable, subject to due documentation, to the review by the highest level of the entity governance (i.e. audit Committee) and appropriate public disclosure.

### Interest Rate Risk in the Banking Book

The Consultative Document mentions that *"The Committee has then undertaken some preliminary work on the key issues that would be associated with applying a Pillar 1 capital charge for interest rate risk in the banking book. The Committee intends to consider the timing and scope of further work in this area later in 2012"*.

On Interest Rate Risk in the Banking Book (IRRBB), we suggest that the Committee organizes exchanges, bilateral with banks and/or multil-lateral with the industry, ahead of any publication.

This would help realizing that the IRRBB is:

1. very different from the market risk management originated from trading transactions, notably due to the role of customer behaviors and the risk management's objectives,
2. dependent on the structure on the banking book transactions that are very much jurisdiction- and bank business model-specific.

That is the reason why we strongly believe and recommend that:

- IRRBB remains dealt with through Pillar 2, rather than through the Pillar 1
- no prescriptive behavioral assumptions are defined as any such prescription could miss an actual risk or conversely create an artificial one<sup>1</sup>

### Liquidity horizons

## 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 TBG is proposing to capture liquidity risk in the market risk capital requirements by assigning instruments or risk factors to one of five liquidity buckets.

The TBG is also proposing to remove the constant level of risk assumption which is currently embedded in the IRC and CRM models, meaning that risk can be effectively shed at their liquidity horizon.

While we welcome the removal of the constant level of risk assumption, we believe the integration of differentiated liquidity horizons is probably one of the most complex issues of the trading book fundamental review. We acknowledge that the concern about falling liquidity during crisis is a valid one, however, the best way to address it is far from being obvious not least because of the technical (and conceptual) difficulty of aggregating P&L calculated across different liquidity horizons.

Annex 4 of the consultative paper proposes three options for implementing this approach:

The first one consists in using historical or simulated long-horizon shocks. Beyond data availability issues and the potential underestimation of tail risk due to the use of overlapping returns, the main drawback of this option is that it would not respect the correlations across risk factors. In addition, while the consultative paper made it possible in theory to roll-over short-dated hedges, in practice, the experience of IRC and CRM proved that such features are extremely complex to implement (As a matter of illustration, the delta of an option would have to be adjusted permanently to have a meaningful distribution).

The second one consists in scaling up historical or simulated one-day shocks to each liquidity horizon. This depends on a square root of time scaling using different horizons for different factors and can potentially lead to unrealistic scaled risk factors shocks. Like for option 1, the correlation structure of risk factors across time would not be respected and illiquid factors and more liquid hedges would not be scaled in a consistent fashion.

The third one consists in scaling up the aggregate risk measure that is based on historical or simulated one-day shocks to a unified weighted-average liquidity horizon. This approach allows using 1- day correlations in a consistent fashion but then relies on the strong assumption that the same correlations apply across longer horizons. In addition, using a single weighted average liquidity horizon is not necessarily meaningful.

Backtesting considerations must also be taken into account and in that respect, only option 3 which keeps the 1 day measure would allow to fulfil backtesting requirements.

We understand that the TBG has alternatively contemplated to introduce the liquidity horizon adjustments in a "prudent valuation" framework. As a matter of fact, Basel 2.5 has already introduced

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<sup>1</sup> As an example, imposing maximum maturity duration to non interest bearing deposits, which could be at odds with modeled duration, could either artificially inflate interest rate risk or completely under-estimate it depending on the business mix. This could even lead banks to no longer hedge a portion of their IRRBB. Exchanges with the industry would be helpful to avoid such unintended consequences,

requirements for prudent valuation adjustments and the EBA is contemplating a framework whereby the adjustments would be calibrated to a fairly high confidence level. This said, regulators must beware of the perverse effects of imposing unreasonably prudent valuation as this could materially bias risks and hedging - see below example of such unintended consequences<sup>2</sup>. In that respect, should such approach be retained, we believe the use of a unique liquidity horizon for the Expected Shortfall in combination with a separate capital add-on accounting for exit costs would be preferable. Such capital add-on would reflect the bid/ask spread of exiting a position within a given liquidity horizon in stressed markets as well as the jumps in liquidity premium as specified in the consultative paper. This fall-back, though preferable to the previous options, is however likely to be overly conservative as not benefiting from diversification effects and not very reflective of potential risk reducing actions.

We present hereafter a proposal which appears to us to be an acceptable alternative compromise between simplicity and accuracy.

## Proposal

We understand that the Committee's intention is to differentiate the liquidity horizons at the risk factor level. While it is conceptually sound and legitimate to consider that liquidity horizons might differ from a risk factor to the other, it remains nevertheless true that what matters at the end is the management horizon of each trading desk as a trading desk hedging an illiquid risk factor with a liquid one will not shed his liquid risks at a shorter time horizon and leave the illiquid ones naked. In other terms, the actual liquidity horizon of a risk factor is not the one resulting from a stand-alone assessment of this risk but the one resulting from the assessment of the whole risk management strategy of the trading desk.

The rationale of using the trading desk axis to assess the liquidity horizons is therefore multifold:

- Risks are not managed independently and liquidity horizons must be assessed taking into account all the risk components within a portfolio strategy (i.e. at a trading desk level)
- It is the axis chosen by the Committee for Backtesting and P&L attribution for model approval
- Although there will be no exact matching between trading desks and risk factors (some risk factors like FX are transversal anyway), each trading desk will broadly correspond to a risk factor family with the other risks taken being non material
- Risks will be managed jointly within each trading desk and capital will be allocated accordingly
- It naturally addresses the issue of hybrid or transversal management desks

We propose to adjust the Expected Shortfall for liquidity in the following way:

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<sup>2</sup> Let's assume a stock is worth 150 and we sell 100 calls, strike 150 at a price of 25€ each. Suppose there are only two possible outcomes for the stock, either it is bought for cash at 200, or it is not, and the price drops to 100. If we "mark-to-market" this option, we will say there is a 50% probability the stock is bought for 200, and 50% chance it drops to 100 (ie, this explains the price). If we hedge this short option, we will buy 50 shares of the stock. Our expected P/L is zero, and if the true probability is actual 50%, then the volatility of our P/L is also zero (stock goes up, we make A.  $50 * 50 = 2500€$  on our hedge, we loose B.  $-50 * 100 = -5000€$  on the option payout, but received C.  $25 * 100 = 2500€$  upfront in premium,  $A + B + C = 0$ . Stock goes down the call is worthless, we gain the 2500€ in premium but loose it in the hedge P/L).

Now, suppose we take a reserve on the short option position of an additional 25€ (ie, we say the PV is not -25, but -50. Now the only probability that explains the price is a 100% chance for the stock to go up. If this probability is input into the model, then our hedge becomes buying 100 shares of stock instead of 50. The expected P/L of the whole operation is still zero, but now, again, if the actual probability was the once implied by the price, the P/L volatility is not zero (stock goes up -> gain +5000€ on hedge, total P/L = +2500€. Stock goes down -> loose -5000€ on hedge, total P/L = -2500€). **Conclusion: hedging the position with embedded conservative reserves increases the P/L volatility.**



Let's denote  $\beta_i$  the liquidity horizon adjustment factor for each broad risk factor/trading desk and let's assume that  $\beta_1 < \beta_2 < \dots < \beta_n$ . We will assume that  $\beta_0 = 0$ .

We are going to build  $n$  portfolio with the following rule: Portfolio\_i will contain all the trading desk with liquidity horizon equal or greater than  $\beta_i$ . For example Portfolio\_1 will contain all the trading desks and Portfolio\_n only those with liquidity horizon  $\beta_n$ .

The total PnL of the Portfolio at the final maturity  $\beta_n$  can be computed as sum of the PnL of Portfolio\_i between  $\beta_{i-1}$  and  $\beta_i$ :

$$PnL = \sum_{i=1}^n PnL(Portfolio_i, \beta_{i-1}, \beta_i)$$

Assuming that the PnL distributions of each sub-portfolio during the non-overlapping time period are independent (in practice we disregard effects like auto-correlation), then the total Variance of the PnL can be computed as:

$$Var(PnL) = \sum_{i=1}^n Var(Portfolio_i, \beta_{i-1}, \beta_i)$$

Assuming the stationarity of the PnL distribution, we can then express the total variance as:

$$Var(PnL) = \sum_{i=1}^n Var(Portfolio_i, 0, \beta_i - \beta_{i-1}) = \sum_{i=1}^n Var(Portfolio_i, 1day)(\beta_i - \beta_{i-1})$$

And finally we are going to assume that the Expected Shortfall is proportional to the Standard Deviation<sup>3</sup>

$$ES^{hor-adj} = \sqrt{\sum_{i=1}^n ES(Portfolio_j, 1day)^2 (\beta_i - \beta_{i-1})}$$

This approach has several advantages:

- Keeping the integrity of the P&L aggregation as the elementary risk metrics would be computed at a 1 day horizon and aggregated based on 1 day correlations.
- Keeping the right structure of incentives as the capital of each trading desk would be scaled-up according to the liquidity horizon of its activity.
- Allowing for a realistic backtesting (i.e. based on 1 day P&L) as it would rely on the elementary risk metrics which are computed at a 1 day horizon.
- Fairly straightforward to implement (avoid the issues of rolling hedges etc)
- Regulators can impose "standard" liquidity horizons adjustments per broad risk classes /trading desks without distorting the relative magnitude of risks in the firm wide expected shortfall.

## Relationship between the standardized and internal models-based approaches

### 3. What are commenters' views on the proposed regime to strengthen the relationship between the standardized and internal models-based approaches?

<sup>3</sup> The expected shortfalls can be written as a multiplier of the required quantile (which itself can be robustly linked to the variance) using a parametric distribution such as a power law of the form  $f_{(0,K)}(x) = \frac{K}{x^{K+1}}$  with  $x_q = \text{Quantile}(q)$ .

We support the intention to align properties of standardized approaches with internal models-based approaches to enable a better calibration of the former and a stronger relationship between the two.

We are less convinced about the usefulness (as a uniform benchmark) of a mandatory calculation of standardized capital requirements for all banks. A benchmarking of internal models on a set of hypothetical portfolio such as the one currently undertaken by the Standard Implementation Group would be much more relevant and bring much more added value to the model approval process and the RWA comparability analysis.

Should however such requirement apply, we believe it must be designed to not overburden internal model banks with too many parallel regulatory capital processes or high reporting frequencies for a metric which is not relevant in day-to-day risk management.

We strongly disagree with the introduction of regulatory capital floors based on standardized approaches as it disincentivises the use and further development of internal models as demonstrated by the floor to CRM experience. In addition, floors are by construction a very poor safeguard against model risk since they can as underestimate as well as overestimate risks.

Strong supervision enhanced by benchmarking and cross-checks along with the more granular backtesting and P&L attribution exercises promoted by the Committee would be a much superior safeguard and would result in a far more enhanced model approval process, the outcome of which could translate into multiplying factors to the internal model output allowing to keep the incentives for banks to improve their internal models.

If the Committee prefers to get rid of the multiplier, then a smooth transition between the internal model and the standard approach (e.g., by a weighted average of both outputs depending on model performance) would be an acceptable alternative, allowing to keep the right structure of incentives with regard to the improvement of internal models and limiting the arbitrage opportunities that would arise should a floor be based on the standardized method.

Similarly, we are concerned about the binary outcome of switching-off internal models for trading desks that do not meet the Backtesting and P&L attribution requirements. We believe once again that a more gradual approach based on multipliers or a weighted average of the internal model and the standardized charge would be much more appropriate as it is very disruptive to remove entire portfolios from the global risk picture provided by internal models.

As explained above, such approach would furthermore contribute to removing the need for a floor as the capital requirement would move smoothly to the standardized charge if the performance of the model deteriorates.

#### Model approval process

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?

We agree with the Committee that a firm wide approval process does not adequately differentiate between the areas where the model works and those where it does not. A desk-level approach would be more appropriate provided it is not too granular (a desk level approach that is conducted at a very low level can be very noisy).

The trading desk definition should be based on criteria rather than on a fixed organizational structure.

Those criteria could be:

- The broad risk factor family (credit, equity, IT, FX, Commodity)
- the type of strategy (market-making, arbitrage, risk management)
- the type of products (flow/vanilla, structured)
- the risk limits set-up

The combination of those 4 criteria shall ensure that the model approval (Backtesting and P&L attribution) is fully aligned with the level at which the use-test is the most meaningful.

As explained in our response to question 3, we would favor a gradual approach based either on multipliers or on a weighted average of the model and standard rules, based on the backtesting (number and size of the excesses) and P&L attribution outcomes.

Indeed, it makes a big difference whether being “unapproved” mean additional standardized charge, or total exclusion from the overall internal model calculation. Though we understand the whole trading desk would fall under the standard approach (this would limit the risk of keeping sides of the trades in the internal model which can be very punitive and unpredictable), it seems to us important to keep a continuum in the internal model perimeter and not end-up with products being dealt with under the standard method for some desks and the internal model for others.

As far as banking book positions are concerned (i.e. FX and Commodities risks in banking book), we believe option 1 (under which banking book instruments automatically fail step 2 of the validation unless they are transferred to an eligible trading desk) and option 3 (under which an actual P&L need to be constructed for those instruments) are particularly challenging to implement as they involve a great operational complexity that will pollute commercial lending activity without necessarily bringing any valuable information to the Regulators in terms of model performance given the vanilla nature of those risks in the banking book. We believe option 2 (under which all banking book instruments automatically pass step 2) combined with a clearly defined trading book/banking book boundary would make much more sense. As an additional safety measure to make sure trading desks do not use a banking book classification to automatically pass step 2 for complex FX or Commodity products, regulators could also consider that only products that are used in trading books that have passed step 2 can be considered as eligible to pass step 2 in the banking book as well.

Finally, as far as non modellable risk factors are concerned, we believe it is appropriate to capitalize those using stress tests-based add-ons provided that 1/ their hedges<sup>4</sup> are taken into account in the stress tests and 2/ they are material enough compared to the other risks of the portfolio/strategy. Otherwise, a systematic use of such capital add-ons which do not benefit from any kind of diversification will very quickly blur the market risk RWAs and lead to capital requirements that are disproportionate to the real risk.

#### Calibration to a period of stress

#### 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?

We support the Committee’s objective to calibrate the framework to a period of significant stress as a mean to dampen the procyclicality and to ensure a conservative going concern capital buffer.

We believe however that this objective must be achieved without breaking the “use-test” paradigm. Similarly, any backtesting exercise would only make sense in the context of a risk measure calibrated on current conditions rather than on period of significant stress.

As a consequence, while we welcome the committee’s acknowledgement of the practical difficulties surrounding the “direct method” of identifying a suitable stress period, we believe suitable alternatives exist to the indirect method as well so as to achieve the Committee’s objectives while keeping a risk metric that can be fully used for day-to-day risk management.

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<sup>4</sup> Although not liquid or not observable in the market, non modellable risks might in certain cases be fully transferred to third parties.

The indirect method example proposed takes the form:

$$ES_s = MaxStressLoss_R \frac{ES_{FC}}{ES_{RC}}$$

Where  $ES_s$  is the proposed stressed measure,  $ES_{FC}$  is the Expected Shortfall based on the full set of risk factors in the current period,  $ES_{RC}$  is the Expected Shortfall based on reduced set or risk factors in the current period and  $MaxStressLoss_R$  is the maximum stressed loss based on the restricted set of risk factors.

Consequently, in this method,  $ES_s$  turns out to be not a stressed Expected Shortfall but rather a Maximum Stressed Loss scaled by the ratio of two Expected Shortfall measures. Hence, the outcome is simply not the intended risk measure but rather a very unstable and extreme one.

We believe a measure that better captures the intent is as follows:

$$ES_s = ES_{FC} \frac{ES_{RS}}{ES_{RC}}$$

This approach provides an Expected Shortfall measure based on **current** Expected Shortfall and scaled by the ratio of Expected Shortfall based on a set of reduced risk factors scenarios observed in a **period of stress** to the Expected Shortfall based on the same reduced set of risk factors observed in the **current period**. In other terms, the outcome is an Expected Shortfall based on current period (and hence useful for day-to-day risk management and for backtesting) scaled to a stress level to achieve the capital requirements calculations. The scalar would be computed on a weekly<sup>5</sup> basis at least so as the adjustment to the stress level remains by all times effective.

An alternative to the stress calibration could be a calibration on long-term history (i.e. the ratio of stressed ES with reduced risk factors to current ES with reduced risk factors would be replaced by the ratio of long-term ES with reduced risk factors to current or short-term ES with reduced risk factors). This would have the advantage of removing the burden and technical difficulties of choosing and frequently adjusting the stress period. It would also be more fair as all business lines would be impacted since each of them would have experienced some kind of crisis over the last 10 years and this would be captured whereas the 1 year stress period concept can sometimes be much less penalizing for certain activities than for others.

#### Diversification and aggregation

#### 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?

We see benefit in computing risk measures at more granular level to better identify where tail risk may be emerging.

We also agree that hedging and diversification benefit can materially diminish during periods of stress. It is therefore prudent to consider such possibilities when constructing the tail scenarios and we understand the Committee's desire not to allow favourable co-movements observed in historical or simulated data to lead to an understatement of risk due to the possibility that those co movements may not be observed in the next stress situation.

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<sup>5</sup> Weekly is the current minimum frequency required for the Stressed VaR computation

We do not believe however that pre-imposed correlations across risk classes is a good way to take into account possible deterioration of hedging and diversification benefit. Such approach means that regardless of portfolio composition within each risk class, the correlation across risk classes would be the same. On the contrary, it can have very distortive and unpredictable consequences on behaviour.

Similarly, the notion of long or short is not meaningful in a portfolio context. Large trading portfolios will generally have multiple risk factors and there will be no unique determination of long and/or short. Indeed portfolios may be directionally neutral and even gamma neutral – they may just have basis risk.

Finally, it seems odd that regulators permit banks to model and recognise diversification within a risk class, where correlation is likely to be high, but severely limit diversification between asset classes. This may discourage firms from pursuing a diversified business model.

Given this, we strongly recommend not having regulatory specified correlations, but instead allow cross risk correlation to be modelled in full, suitably calibrated to stress scenarios.

If, despite the additional controls and the stressed calibration proposed in the Fundamental Review, the Committee is not confident in the level of diversification implied by internal models, an alternative is to compute the ‘diversification benefit’, defined as the sum of standalone risk by category, minus the fully diversified risk value. Capital could then be set as the sum of the standalone values, less some proportion  $\alpha$  of the diversification benefit. Using the notations introduced in the response to question 2,

$$ES_{div\_adjusted}(Portfolio_j) = (1 - \alpha) \times \sum_{i=1}^5 ES_i^{stand-alone}(Portfolio_j^i) + \alpha \times ES(Portfolio_j)$$

where  $\alpha$  would be a factor between 1 and 0 set by supervisors according to their view on the quality of a firm’s model of diversification<sup>6</sup> and  $ES^{stand-alone}$  the standalone 1 day Expected Shortfall for Credit, Interest Rates, FX, Equity and Commodity risks respectively.

This would be a more natural approach since it does not seek to specify a hard-to-calibrate set of cross-risk correlation factors and long/short classification of portfolios, but instead uses a risk-sensitive portfolio model, with a limit on correlation benefit.

From this equation, we can derive the unstressed Expected Shortfall adjusted for liquidity horizons and diversification:

$$ES_{div\_adj}^{hor\_adj} = \sqrt{\sum_{j=1}^n \left( \alpha ES(Portfolio_j, 1day) + (1 - \alpha) \sum_{i=1}^5 ES^{stand-alone}(Portfolio_j^i) \right)^2 (\beta_j - \beta_{j-1})}$$

It should be noted that while the 5 broad risk factors mentioned above seem the natural axis to compute the stand-alone Expected Shortfall, in practice, it creates a lot of complexity especially under the full revaluation approach promoted by the Committee. A much more tractable axis would be in fact to use the activity dimension, i.e. compute the stand-alone ES for Credit, IR, FX, Equity and Commodity activities rather than the risk factors *stricto sensu*, knowing that there is a nearly complete correspondence between the two dimensions as each activity will be characterized by a dominant risk factor.

## Credit risk

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

<sup>6</sup> With  $\alpha = 1$  corresponding to full modelling of diversification and  $\alpha = 0$  corresponding to simple addition of risk by category with no diversification. Alternatively, Regulators might chose to apply a uniform constraint on diversification by imposing a unique  $\alpha$  factor to all banks.

framework (eg the choice of the quantile parameter for ES, the P&L attribution and backtesting processes, etc)?

We believe most of the credit risk in the trading book is not “rating-related” but rather “spread related” not least because market spreads are a leading rather than a lagging indicator of ratings migration. In other terms, there is no particular rationale for imposing a similar treatment for credit risk in Trading Book and Banking Book as those are not affected in the same way and by the same risks.

Hence, the real challenge is to account for the risks that effectively impact trading activities i.e. Jump to Default but also large discontinuous spread or correlation moves. From a modeling perspective, those risks can be captured by a robust simulation of credit spreads over the appropriate liquidity risk horizon<sup>7</sup>. The move from a VaR to an Expected Shortfall type of measure which implies an integration over the tail combined with a stressed calibration also implies that we have less risk of missing extreme events.

As a consequence, we believe that integrating market and credit risk will prove much more straightforward within the stressed Expected Shortfall framework contemplated by the Committee than within the current VaR framework. The use of a lower confidence interval as proposed in the response to question 8 would remove the high instability attached to the IRC model as well as the issues around back-testing and model validation. Assuming as highlighted above that we breakdown the trading book credit risk into a spread diffusion component and a default risk component, the scale-up of stand-alone Expected Shortfall that we propose to factor-in liquidity horizons would allow to align with the liquidity horizons currently applied in IRC/CRM as far as the spread diffusion is concerned. While this scale-up is sufficient to capture the convexity of risks like Rates, FX or Credit Spreads<sup>8</sup>, it might not capture properly Default risk which materializes at longer horizon. Put in other terms, as far as the default risk is concerned, the rescaling is in  $t$  rather in  $SQR(t)$ .

As a consequence, the default risk could be added as an extra (orthogonal) component in the ES aggregation formula:

$$ES_{div\_adj}^{hor\_adj} = \sqrt{\sum_{j=1}^n \left( \alpha ES(Portfolio_j, 1day) + (1-\alpha) \sum_{i=1}^5 ES^{stand-alone}(Portfolio_j^i) \right)^2 (\beta_j - \beta_{j-1}) + ES^{default}(Portfolio)^2}$$

where  $ES^{default}(Portfolio)$  is the 1 year Expected Shortfall coming from Default only on the full portfolio taking into account different intermediary liquidity horizons.

8. What are the likely operational constraints with moving from VaR to ES, including any challenges in delivering robust backtesting, and how might these be best overcome?

We broadly support the Committee’s proposed change from Value at Risk (“VaR”) to Expected Shortfall (“ES”). ES covers the entire tail beyond a chosen confidence level whereas VaR is only one point on the distribution. ES also satisfies the coherency properties desirable in a risk measure.

Appropriate percentile

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<sup>7</sup> This is implicitly acknowledged by the Committee since within the Basel 3 framework, banks have the possibility to cap the maturity at 1 year for the sake of their counterparty risk capital charge computation provided they can demonstrate that they capture rating migration in their credit VaR model

<sup>8</sup> Indeed, for all linear products, the natural rescaling is in  $SQR(T)$  but even for non linear products like options, the rescaling would be in  $SQR(T)$  under a re-hedging assumption.

We believe that the 95<sup>th</sup> percentile would be a more appropriate threshold from which to calculate expected shortfall for various reasons:

- ES computed from the 95<sup>th</sup> percentile will deliver a similar capital standard to VaR computed at the 99th percentile for Profit and Loss (“P/L”) tails of medium fatness.
- Averaging observed losses in excess of a chosen threshold provides a discrete approximation to ES, which is defined as the integral of losses with respect to the probability. Lower thresholds would allow more observations from which to form the average and therefore give a better approximation. Note that the alternative to averaging losses would be to either fit a parametric distribution to historical P/L in order to perform the integral, or a Monte Carlo simulation would be required to generate additional loss realizations beyond the threshold. However the simulation would itself need to make assumptions about the distribution of P/L.
- ES from a higher percentile would be extremely unstable.
- Backtesting ES at the 95th percentile is more reliable than at higher percentiles.

Backtesting will remain nevertheless a challenge and it seems reasonable to backtest two levels of VaR (for example 95% and 97.5%) rather than the entire tail.

#### Full revaluation requirement vs overall accuracy

We consider that regulation should target the overall quality of the risk metrics produced by a process more than specifying very prescriptive levels of accuracy for some stages of the calculation. Note that most methods involve a sampling step (usually either historical or Monte Carlo) and a valuation step (full revaluation, grid interpolation, Taylor expansion or a hybrid of these). Full revaluation is easier with fewer sample points, but using fewer points increases the inaccuracy in the sampling step. Therefore, an insistence on using full revaluation over a quicker valuation method could actually reduce the accuracy of the overall measure. Furthermore, if the number of sample points is smaller than the number of risk factors contributing to the market risk (likely to be many thousands of risk factors for a large financial institutions) the sampling would not span the space of possible market moves, meaning that would result in no capital charge for some positions.

More generally, we caution against being highly prescriptive regarding the methods allowed in the calculation of market risk measures because this could create systemic modelling risk. To give an example, suppose that the regulation requires banks to use the method of taking historical returns in risk factors from a specified year and applying those as relative returns on the current market values of risk factors, calculating P&L by full revaluation. Note that this method would not have predicted the losses incurred in the most recent financial crisis. If market conditions are such that this method understates losses, it is likely that losses will be understated by all banks, potentially creating a serious systemic problem.

#### Standard approach

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

10. Do commenters propose any amendments to these approaches?

We fully support the revision of the standardized approach and the objectives sought by Committee’s – more risk sensitivity, simplicity, transparency and consistency – though we admit that striking the right balance between such conflicting objectives is a difficult task.

We believe both the partial and fuller risk factor approaches represent a significant improvement compared to the current standard method in particular in terms of recognition of hedging and diversification.

The Committee should not however underestimate the implementation challenge that both approaches might cause to small or non sophisticated banks and it seems to us extremely difficult if simply not possible to design an approach that fits both the purpose of offering a simple, easy to implement alternative to banks with limited non complex trading activities and that of acting as a potential fall-back to internal models for large sophisticated banks.

With regard to the latter, the fuller risk factor approach is clearly a much better candidate as it achieves a higher degree of risk sensitivity while also being more straightforward to implement infrastructure-wise.

For smaller banks, further consideration should be given to the merit of having more than one standard approach available in the framework (could be either the partial risk factor approach or the current standard method or both)<sup>9</sup>.

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<sup>9</sup> It is worth reminding that more than two approaches are available for credit, counterparty and equity risk in the banking book and only capital requirements for trading book can be computed according to no more than two approaches.



APPENDIX I  
Keeping the link between risk and capital metrics

The following proposal seeks to articulate a framework whereby capital requirements are built upon an elementary risk metric that satisfies the desirable criteria for day-to-day risk management but calibrated to a level that achieves the Regulators objectives as laid down in the trading book fundamental review consultative paper. The objective is to keep a strong and consistent link between risk and capital so as banks have the right incentives to continuously improve their risk measurement methodology, under the control of the supervisors.

In our framework, the elementary risk metric is an Expected Shortfall  $ES_{Firm}$  calibrated to a 95% confidence level, on current market conditions, based on a 1 day liquidity horizon, using firm internal correlation assumptions.

This elementary risk metric is an important building block to the capital framework but not the only one.

Indeed, we understand from the consultative paper that the Committee seeks to have a capital framework that satisfies the following criteria:

- Constrained diversifications benefits,
- Differentiated liquidity horizons by broad risk categories
- Calibrated to stress conditions

This can be achieved starting from the elementary risk metrics in the following way:

Step 1 consists in taking into account differentiated liquidity horizons by trading desk/portfolio:

We understand that the Committee's intention is to differentiate the liquidity horizons at the risk factor level. While it is conceptually sound and legitimate to consider that liquidity horizons might differ from a risk factor to the other, it remains nevertheless true that what matters at the end is the management horizon of each trading desk as a trading desk hedging an illiquid risk factor with a liquid one will not shed his liquid risks at a shorter time horizon and leave the illiquid ones naked. In other terms, the actual liquidity horizon of a risk factor is not the one resulting from a stand-alone assessment of this risk but the one resulting from the assessment of the whole risk management strategy of the trading desk.

The rationale of using the trading desk axis to assess the liquidity horizons is therefore multifold:

- Risks are not managed independently and liquidity horizons must be assessed taking into account all the risk components within a portfolio strategy (i.e. at a trading desk level)
- It is the axis chosen by the Committee for Backtesting and P&L attribution for model approval
- Although there will be no exact matching between trading desks risk factors (some risk factors like FX are transversal anyway), each trading desk will broadly correspond to a risk factor family with the other risks taken being non material
- Risks will be managed jointly within each trading desk and capital will be allocated accordingly
- It naturally addresses the issue of hybrid or transversal management desks

Let's denote  $\beta_i$  the liquidity horizon adjustment factor for each broad risk factor/metier and let's assume that  $\beta_1 < \beta_2 < \dots < \beta_n$ . We will assume that  $\beta_0 = 0$ .

We are going to build n portfolio with the following rule: Portfolio\_i will contain all the trading desks with liquidity horizon equal or greater than  $\beta_i$ . For example Portfolio\_1 will contain all the trading desks and Portfolio\_n only those with liquidity horizon  $\beta_n$ .

The total PnL of the Portfolio at the final maturity  $\beta_n$  can be computed as sum of the PnL of Portfolio\_i between  $\beta_{i-1}$  and  $\beta_i$ :

$$PnL = \sum_{i=1}^n PnL(Portfolio_i, \beta_{i-1}, \beta_i)$$

Assuming that the PnL distributions of each sub-portfolio during the non-overlapping time period are independent (in practice we disregard effects like auto-correlation), then the total Variance of the PnL can be computed as:

$$Var(PnL) = \sum_{i=1}^n Var(Portfolio_i, \beta_{i-1}, \beta_i)$$

Assuming the stationarity of the PnL distribution, we can then express the total variance as:

$$Var(PnL) = \sum_{i=1}^n Var(Portfolio_i, 0, \beta_i - \beta_{i-1}) = \sum_{i=1}^n Var(Portfolio_i, 1day)(\beta_i - \beta_{i-1})$$

And finally we are going to assume that the Expected Shortfall is proportional to the Standard Deviation<sup>10</sup>

$$ES^{Liq\_hor\_adjusted} = \sqrt{\sum_{i=1}^n ES(Portfolio_i, 1day)^2 (\beta_i - \beta_{i-1})}$$

This approach has several advantages:

- Keeping the integrity of the P&L aggregation as the elementary risk metrics would be computed at a 1 day horizon and aggregated based on 1 day correlations.
- Keeping the right structure of incentives as the capital of each broad business unit would be scaled-up according to the broad liquidity horizon of its activity.
- Allowing for a realistic backtesting (i.e. based on 1 day P&L) as it would rely on the elementary risk metrics which are computed at a 1 day horizon.
- Fairly straightforward to implement (avoid the issues of rolling hedges etc)
- Regulators can impose “standards” liquidity horizons adjustments per broad risk classes /trading desks without distorting the relative magnitude of risks in the firm wide expected shortfall.

Step 2 consists in limiting diversification benefits:

This is done by computing the ‘diversification benefit’, defined as the sum of standalone risks, minus the fully diversified risk value and defining capital as the sum of the standalone values, less some proportion  $\alpha$  of the diversification benefit. Using the notations introduced above,

$$ES_{div\_adjusted}(Portfolio_j) = (1 - \alpha) \times \sum_{i=1}^5 ES_i^{stand-alone}(Portfolio_j^i) + \alpha \times ES(Portfolio_j)$$

<sup>10</sup> The expected shortfalls can be written as a multiplier of the required quantile (which itself can be robustly linked to the variance) using a parametric distribution such as a power law of the form  $f_{\alpha, K}(x) = \frac{K}{x^{\alpha+1}}$  with  $x_q = \text{Quantile}(q)$ .

where  $\alpha$  would be a factor between 1 and 0 set by supervisors according to their view on the quality of a firm's model of diversification<sup>11</sup> and  $ES^{stand-alone}$  the standalone 1 day Expected Shortfall for Credit, Interest Rates, FX, Equity and Commodity risks respectively.

This would be a more natural approach since it does not seek to specify a hard-to-calibrate set of cross-risk correlation factors and long/short classification of portfolios, but instead uses a risk-sensitive portfolio model, with a limit on correlation benefit.

From this equation, we can derive the unstressed Expected Shortfall adjusted for liquidity horizons and diversification:

$$ES_{div\_adjusted}^{Liq\_hor\_adjusted} = \sqrt{\sum_{j=1}^n \left( \alpha ES(Portfolio_j, 1day) + (1 - \alpha) \sum_{i=1}^5 ES^{stand-alone}(Portfolio_j^i) \right)^2 (\beta_j - \beta_{j-1})}$$

It should be noted that while the 5 broad risk factors mentioned above seem the natural axis to compute the stand-alone Expected Shortfall, in practice, it creates a lot of complexity especially under the full revaluation approach promoted by the Committee. A much more tractable axis would be in fact to use the activity dimension, i.e. compute the stand-alone ES for Credit, IR, FX, Equity and Commodity activities rather than the risk factors *stricto sensu*, knowing that there is a nearly complete correspondence between the two dimensions as each activity will be characterized by a dominant risk factor.

#### Step 3 consists in calibrating to stress conditions:

This is achieved simply by scaling the Expected Shortfall calibrated to current conditions and adjusted for diversification and liquidity horizons to a stress level in a dynamic way:

$$Capital_{Firm} = ES_{div\_adjusted}^{Liq\_hor\_adjusted} \frac{ES_{RS}}{ES_{RC}}$$

The stress scalar is equal to the ratio of Expected Shortfall based on a set of reduced risk factors scenarios observed in a period of stress to the Expected Shortfall based on the same reduced set of risk factors observed in the current period. The scalar can be computed on a weekly basis at least so as the adjustment to the stress level remains by all times effective.

#### Computational example

Let's assume we have three main activities (Equity Derivatives, Interest Rates and Credit) and the following situation:

1. EQD has one portfolio:
  - EQ\_10D with a liquidity horizon of 10D and 1day ES of 10M
2. Rates has two portfolios:
  - IR\_10D with a liquidity horizon of 10D and 1day ES of 30M
  - IR\_6M with a liquidity horizon of 6M and 1day ES of 10M
3. Credit has three portfolios:

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<sup>11</sup> With  $\alpha = 1$  corresponding to full modelling of diversification and  $\alpha = 0$  corresponding to simple addition of risk by category with no diversification. Alternatively, Regulators might chose to apply a uniform constraint on diversification by imposing a unique  $\alpha$  factor to all banks.

- CR\_10D with a liquidity horizon of 10D and 1day ES of 5M
- CR\_6M with a liquidity horizon of 6M and 1day ES of 10M
- CR\_1Y with a liquidity horizon of 1Y and 1day ES of 20M

For sake of simplicity, let's assume that the portfolios have a Gaussian distribution and copula with:

- correlation within an asset class of 50%
- correlation between two asset classes of 25%

Finally let's assume that the diversification adjustment  $\alpha$  is 0.75

Portfolios ES and Correl						
	10D 6M 1Y			Correl	Cross Correl	Alpha
EQ	10	0	0	50%	25%	0,75
IR	30	10	0	50%		
CR	5	10	20	50%		

We will now construct 3 portfolios broken down by liquidity horizon:

10D Horizon and above:

$$\begin{aligned}
 Ptf_{10D\_EQ} &= EQ_{10D} & ES_{Ptf_{10D\_EQ}}^{1day} &= 10M \\
 Ptf_{10D\_IR} &= IR_{10D} + IR_{6M} & ES_{Ptf_{10D\_IR}}^{1day} &= 36M \\
 Ptf_{10D\_CR} &= CR_{10D} + CR_{6M} + CR_{1Y} & ES_{Ptf_{10D\_CR}}^{1day} &= 30M \\
 Ptf_{10D} &= Ptf_{10D\_EQ} + Ptf_{10D\_IR} + Ptf_{10D\_CR} & ES_{Ptf_{10D}}^{1day} &= 56M
 \end{aligned}$$

$$ES_{Div\_Adj}(Ptf_{10D}, 1day) = 0.75 \times 56 + 0.25 \times (10 + 35 + 30) = 61M$$

6M Horizon and above:

$$\begin{aligned}
 Ptf_{6M\_IR} &= IR_{6M} & ES_{Ptf_{6M\_IR}}^{1day} &= 10M \\
 Ptf_{6M\_CR} &= CR_{6M} + CR_{1Y} & ES_{Ptf_{6M\_CR}}^{1day} &= 26M \\
 Ptf_{6M} &= Ptf_{6M\_IR} + Ptf_{6M\_CR} & ES_{Ptf_{6M}}^{1day} &= 31M
 \end{aligned}$$

$$ES_{Div\_Adj}(Ptf_{6M}, 1day) = 0.75 \times 31 + 0.25 \times (10 + 26) = 32M$$

1Y Horizon and above :

$$\begin{aligned}
 Ptf_{1Y\_CR} &= CR_{1Y} & ES_{Ptf_{1Y\_CR}}^{1day} &= 20M \\
 Ptf_{1Y} &= Ptf_{1Y\_CR} & ES_{Ptf_{1Y}}^{1day} &= 20M
 \end{aligned}$$

$$ES_{Div\_Adj}(Ptf_{1Y}, 1day) = 0.75 \times 20 + 0.25 \times 20 = 20M$$

And finally we aggregate the ES for the different time periods<sup>12</sup>:

$$ES_{Div\_Adj}^{Hor\_Adj} = \sqrt{61^2 \times 10 + 32^2 \times 120 + 20^2 \times 130} = 461M$$

<sup>12</sup> we consider that 10D = 10 days, 6M = 130 days, 1Y = 260 days

This contrasts with a 1 day fully diversified Expected Shortfall of 56M for the whole portfolio.

New Portfolios				
	10D	6M	1Y	Total after liquidity horizon adjustment
EQ	10	0	0	32
IR	36	10	0	158
CR	30	26	20	380
Total before diversification adjustment	56	31	20	442
Total after diversification adjustment	61	32	20	<b>461</b>

## APPENDIX II

### Revisiting the CVA capital charge

The Basel Committee has introduced a capital charge capturing the volatility of Credit Valuation Adjustments (“CVA”) within the Basel 3 framework.

According to the Basel proposal, this volatility is assessed on the basis of the market-value of the credit risk on the counterparty, i.e. the volatility of its CDS spreads (or of a proxy spread also derived from CDS levels). Note that the proposed prudential treatment of CVAs is completely disconnected from current accounting treatment of CVAs.

The proposed treatment of CVA in Basel 3 raises numerous issues:

- CVA are dynamic provisioning: they already anticipate the potential risk of default of a counterparty. Adding a capital charge to cover their potential increase and basing this charge on market parameters is massively pro-cyclical.
- Requiring such a capital charge is neither obvious as it consists of protecting banks from the effects of the volatility implied by accounting standards. At default, the LGD is totally absorbed by the CVA itself; therefore capital is of no use.
- The disconnection between the capital charge and banks business model/CVA accounting practices is also very problematic and can potentially create risks where they do not exist.
- Indeed, banks that do not mark CVA to market are required to calculate a capital charge that is based on market credit spread volatility; this volatility however simply does not exist in their measurement of P&L and earnings. Those banks are therefore induced by a regulatory provision to hedge the “regulatory CVA” in order to reduce their capital charges and its volatility; this not only would be a deviation from their business models but would also cause increased P&L and earnings volatility as it is not matched by any corresponding CVA volatility.
- This incentive to hedge will increase the demand for CDS which may have a feedback loop on the price of the debt issuances, in particular in stressed situations.
- This will further exacerbate the pro-cyclicality highlighted above.
- The disconnect is also problematic for Banks that mark CVA to market because they are subject to a capital charge that is not derived from their CVA pricing and risk models; they are required to use methodologies and assumptions that diverge from their internal pricing and risk calculations.
- Moreover, for those banks, the CVA charge is standalone and only account for the credit spread risk. This implies that, on one hand, the CVA risks do not diversify with the rest of the Trading Book risks, and on the other hand, market risk hedges are left naked in the trading book without the offsetting CVA exposures.

We believe it is extremely important that the Committee reconsider its proposals on the CVA charge, taking into account the differences in business models and the potential unintended consequences of such a procyclical charge and the great emphasis it put on the CDS market.

APPENDIX III  
Trading-evidenced criteria

The current Basel framework already introduced a number of operational requirements with regard to the trading book/banking book boundary.

Those requirements must be described in a general policy governing the trading book along three dimensions:

1. The evidence of the trading intent in accordance with the following conditions:
  - a. the eligibility criteria for the trading book including the precise definition of the “trading intent”
  - b. the positions, the associated instruments, or the portfolios must be covered by a clearly documented trading policy approved by the executive body, specifying the expected holding period;
  - c. the bank must have clearly defined procedures for the active management of positions taken on a trading desk, which include the following:
    - position limits must be set and monitored for appropriateness;
    - position-taking by dealers must be subject to predetermined limits according to defined policies;
    - positions must be reported to the executive body as an integral part of the bank’s risk management process
    - positions must be actively monitored with reference to market information sources;
    - an assessment must be made of the marketability or hedge-ability of positions, and of the quality and availability of market inputs to the valuation process, the level of market activity, and the size of positions traded in the market;
  - d. The bank must have clearly defined procedures allowing the monitoring of positions against their trading policies, including the monitoring of rolled-over transactions and short positions in the Trading Book.
2. The valuation of the trading book
  - a. The bank shall ensure that the value applied to each of its Trading Book positions correctly reflects its market value.
    - This valuation shall appropriately reflect the dynamic nature of Trading Book positions and the demands of prudential soundness inherent in the Trading Book.
    - Trading Book positions shall be re-valued daily.
    - When a market price is not available, or, on an exceptional basis for certain convertible products, when the market price does not reflect the intrinsic value of the position, the institution should use an alternative valuation method provided that the method is sufficiently prudent and has been communicated in advance to its Supervisor who may prohibit its use.
    - Positions shall be booked from the trading date of the transactions.
  - b. The bank shall establish sufficient systems and controls to provide prudent and reliable valuation estimates. These systems and controls shall include at least the following elements:
    - i. Documented procedures for the process of valuation. This shall include:
      - Clearly defined responsibilities of the various units involved in valuing positions,
      - The sources of market information and review of their relevance,
      - The frequency of independent valuation,

- The timing of closing prices,
  - The procedures for adjusting valuations,
  - Month-end and ad-hoc verification procedures;
- ii. Reporting lines for the department in charge of the valuation process that are clear and independent of operating units; the reporting line shall ultimately be to the executive body.

### 3. The management of the trading book

Procedures, adapted to the institution's risk management methods, shall define the management of the Trading Book. These procedures shall identify:

- The activities considered as trading and as constituting part of the Trading Book for capital requirement purposes;
- The extent to which a position can be marked-to-market daily by reference to an active liquid market;
- For positions that are marked-to-model, the extent to which the institution can:
  - Identify all material risks associated with a given position;
  - Hedge all material risks of the position with instruments for which there is an active liquid two-way market;
  - Derive reliable estimates for the key parameters and assumptions used in the model
- The extent to which the subject institution can generate valuations that can be validated externally;
- The extent to which legal restrictions or other operational requirement could impede the institution's ability to liquidate or hedge its exposure in the short term;
- The extent to which the subject institution can actively manage its exposure within its trading operations;
- The extent to which the subject institution may transfer risk or positions between the Banking and Trading Books and the criteria for such transfers.