

March 11, 2009

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

Dear Sir/Madam:

Re: Comments on Guidelines for computing capital for incremental risk in the trading book and Revisions to the Basel II market risk framework

The Canadian Bankers Association¹ would like to thank the Basel Committee for the opportunity to comment on the January 2009 *Guidelines for computing capital for incremental risk in the trading book and Revisions to the Basel II market risk framework*, and for its ongoing willingness to discuss and respond to industry concerns. In particular, we appreciate that the Basel Committee has simplified the incremental risk charge proposals, leading to a capital charge which will be much simpler to implement. As a general principle, we understand the motivation to increase the capital associated with certain trading book activities. In light of recent events in the markets, we agree that this is a reasonable action.

In this cover memo we take the opportunity to present four major comments on the two documents, followed by some additional thoughts and requests for clarification. More detailed comments are then presented on a paragraph basis in the appendices.

Firstly, while we understand the regulators' apprehension about banking book-trading book arbitrage, we are concerned that the guidelines/suggestions in the papers create inverse incentives to move securities out of the trading book. There is real risk mitigation arising from the discipline of daily marking and other trading book processes from which it would be counterproductive to move away (this comment is directly motivated by the question of paragraph 38 of the incremental risk paper but is also an overarching concern in light of the increased trading book charges).

¹ The Canadian Bankers Association works on behalf of 51 domestic banks, foreign bank subsidiaries and foreign bank branches operating in Canada and their 249,000 employees to advocate for efficient and effective public policies governing banks and to promote an understanding of the banking industry and its importance to Canadians and the Canadian economy.

Secondly, we are concerned about the timelines. We understand that the papers' guidelines/suggestions are not scheduled to be finalised until late summer. This will give us very little time to develop, test and backtest the models including parallel testing, particularly if the regulators undertake an exhaustive approval process. Further to this point is the fact that we are being asked to implement two large models (stressed VaR and IRC) and to extensively overhaul a third (specific risk, since we now need to remove from it default and migration events.) All banks will be approaching their regulators at the same time with three models and we are concerned about regulators' capacity to process them all in a sufficiently timely manner. In light of this complete change to the capital regime of the trading book, we believe it would be prudent to put the timeline out by another year. A related point is that there is no clear indication of what the fall-back would be if regulators do not approve a firm's new market risk capital models in time for the implementation deadline.

Thirdly, we seek clarification of the meaning of paragraphs 28 and 29 of the Incremental Risk Charge paper. We interpret them to mean that we cannot net positions prior to feeding them into a model. However, for each scenario within the model we would treat exposures on a net portfolio basis. In that interpretation, paragraph 29 further clarifies that to be operative, regulators require that the model be sensitive to basis risk which can drive the risk of residual positions. We suggest a rewording that firms must follow paragraph 29, failing which they default to separate treatment of long/short positions as a fallback. The only alternate interpretation is that we run two IRC processes, for long and short positions and then sum. Such a reading would lead to onerous capital charges and would drive almost all bond trading to being on an agency basis. The knock-on effect would be to make it harder for all businesses to raise capital through debt markets. This interpretation would mean that a naked bond position would attract less capital than one on which a firm had purchased credit protection through a CDS, since the latter will attract capital for both the bond and the CDS. This is a perverse result and presumably not what the regulators have in mind.

Finally, if the goal of the stressed VaR is to increase capital, it would be simpler and more direct to have a discussion about modified multipliers rather than a stressed VaR, which raises a number of operational and conceptual concerns. If the stressed VaR is maintained, we believe the attendant multiplier needs to be considered more carefully. We anticipate that regulators will always expect stressed VaR to be at least as great as general market risk VaR so multiplying both by three amounts to an effective multiplier of current VaR by at least six and presumably by somewhat more. We think this is punitive in light of the fact that there is a further IRC charge for the category of trading which the BCBS has flagged as being of concern. The category of instruments which are not subject to IRC are fairly liquid derivatives such as interest rate swaps and FX forwards, in fact the very instrument types which BCBS had in mind when they originally devised the capital charge with a factor of three. These instruments have not particularly stressed the market and we do not believe it is necessary to dramatically increase the capital associated with them. We also seek clarification that the stressed VaR only pertains to general market risk and that the regulators are not expecting us to create a stressed specific risk model.

Other comments include:

We question why the charges for securitisations (and resecuritisations) rely on external ratings, when it was the failure of external ratings which precipitated much of the turmoil in the collateralized debt obligation markets.

We continue to question the appropriateness of floors on liquidity horizons for the incremental risk charge. This is not appropriately risk-sensitive and removes incentive to trade in liquid securities.

We believe there should be enough flexibility in the papers' guidelines/suggestions that future improvements in modelling can find their way into firms' capital assessment. For example, we recognise regulators' concerns about our current ability to accurately simulate securitisations. However, if that were to change, there should be sufficient flexibility in the guidelines/suggestions to allow firms to implement such models.

Detailed comments are also provided in the attached appendices. We also remark that Canadian banks have participated in the joint industry response of the ISDA, IIF, LIBA and IBFed and are broadly supportive of the comments made by those groups.

Thank you for considering our comments and suggestions.

Sincerely,

Deborah L. Crossman

for

Karen Michell

Attachments

Appendix 1

CBA Member Bank Comments on the Basel Committee's Guidelines for computing capital for incremental risk in the trading book (January 2009)

Basel Committee Recommendation	Member Bank Comments/Questions
<p>General</p>	<ul style="list-style-type: none"> There is a difference in the treatment between specific risk and incremental risk charge. For the former, we are allowed to include securitisations in our simulations (paragraph 5 of the Basel Committee's market risk paper), which means that we can recognise the offsetting behaviour of the instrument with its hedges. However the same is not allowed for the incremental risk (paragraph 10 of the Basel Committee's incremental risk document.) Given that these are now fully capitalised according to banking book charges, it seems punitive not to recognise the hedge offsetting in the market risk charges.
<p>II. Principles for calculating the IRC</p> <p>A. IRC-covered positions and risks</p> <p>8. According to paragraph 718(xcii) of the Basel II Framework, the IRC encompasses all positions subject to a capital charge for specific interest rate risk according to the internal models approach to specific market risk but not subject to the treatment outlined in paragraphs 712(iii) to 712(vi) of the Basel II Framework, regardless of their perceived liquidity.</p> <p>10. However, when computing the IRC, a bank is not permitted to incorporate into its IRC model any securitisation positions, even when securitisation positions are viewed as hedging underlying credit instruments held in the trading account. This prohibition reflects the Committee's current judgment that, for the purpose of quantifying default and migration event risks, the state of risk modelling in this area is not sufficiently reliable as to warrant recognising hedging or diversification benefits attributable to securitisation positions.</p> <p>B. Key supervisory parameters for computing IRC</p> <p>2. Constant level of risk over one-year capital horizon</p> <p>17. Rebalancing positions does not imply, as the IRB approach for the</p>	<ul style="list-style-type: none"> It is not clear what is meant by "securitisations" and "re-securitisations". We would like to see a definition of these terms, including what instruments are intended to be captured within these terms and how they relate back to credit derivatives. As the "state of modelling" improves, will the Committee change its approach? Some clarity on the degree of permanence to this item would be useful. Rebalancing strategy based on liquidity horizon does not always reduce risk with

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<p>banking book does, that the same positions will be maintained throughout the capital horizon. Particularly for more liquid and more highly rated positions, this provides a benefit relative to the treatment under the IRB framework. However, a bank may elect to use a one-year constant position assumption, as long as it does so consistently across all portfolios.</p> <p>3. Liquidity horizon</p> <p>20. The liquidity horizon for a position or set of positions has a floor of three months.</p>	<p>respect to 1-year direct simulation as implied in paragraph 17 of the "Guideline". It may reduce or increase risk depending on default probability term structure and portfolio composition.</p> <ul style="list-style-type: none"> • This puts a floor on liquidity horizons. It is not clear why a floor is required, compared to a justified value put forward by the banks. It is also not clear how three months was decided upon. That may be appropriate for some asset classes but for others (equities or CDS instruments that are part of indices for instance) that is clearly excessive.
<p>VI. Alternative approach: applying banking book treatment to positions in the trading book</p> <p>38. The Committee is particularly concerned about the longstanding incentives for arbitrage between the banking book and the trading book. Specifically, one of the over-arching goals of the Basel II Framework is maintaining consistency in the capital requirements generated for a particular credit-related instrument, whether that exposure is placed in either the banking book or the trading book. However, recent events have shown that the comparatively lower capital requirements under the current market risk amendment led banks to place credit-risky instruments in the trading book. For this reason, the Committee has proposed copying the charges that are applied to securitisation (and re-securitisation) positions in the banking book to the trading book approach (see paragraphs 712(iii) to 712(vi)). As such, the trading book charges applied to securitisation (and re-securitisation) positions that are in the trading book would be no less than the charges would be were those positions in the banking book. These positions would also be included in the general market risk VaR and stressed market risk VaR unless deducted from capital.</p> <p>39. By extension, the Committee is considering adopting the same approach for all positions that are in the trading book and which are subject to the specific risk capital requirements. Under this alternative approach, the specific risk charges (whether modelled or based on the</p>	<ul style="list-style-type: none"> • In terms of the questions in paragraphs 38-42, we appreciate the regulators' concerns with regards to banking book/trading book arbitrage. However any treatment must reflect the fact that the trading book is run as a hedged book and not an investment book. That means long/short positions must be reflected in the final capital charge. This entails more than simply offsetting perfectly matched positions. To the extent that risks are partially offsetting (e.g. hedges with a basis such as different term bonds or bond/CDS packages) the trading book capital should reflect that. We fear that the banking book treatment is too blunt an instrument to address these points.

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<p>standardised charges of paragraph 710) would be replaced by the applicable banking book capital requirements of the IRB, the Standardised Approach, or the securitisation framework of Basel II.</p> <p>40. Question: What is the industry's view regarding an alternative approach to the specific risk capital requirements, whereby the IRB, the Standardised Approach, and securitisation charges that are applicable to the banking book would also be applied to such positions in the trading book? These banking book charges would substitute for the modelled specific risk and IRC charges, as well as replace the standardised specific risk charges currently applicable to the trading book for banks that do not model specific risk.</p> <p>41. If such an approach were to be followed, what implications would this have for trading portfolios with a mix of long and short positions?</p> <p>42. Alternatively, what is the industry's view to applying the IRB, the Standardised Approach, and securitisation charges that are applicable to the banking book to illiquid positions in the trading book? In this case, how could "illiquid positions" be defined?</p>	<ul style="list-style-type: none"> • Would this mean there would be no IRC for liquid credit sensitive assets?

Appendix 2

CBA Member Bank Comments on the Basel Committee's Revisions to the Basel II market risk framework (January 2009)

Basel Committee Recommendation		Member Bank Comments/Questions
<p>General</p>		<ul style="list-style-type: none"> There is a difference in the treatment between specific risk and incremental risk charge. For the former, we are allowed to include securitisations in our simulations (paragraph 5 of the Basel Committee's market risk paper), which means that we can recognise the offsetting behaviour of the instrument with its hedges. However the same is not allowed for the incremental risk (paragraph 10 of the Basel Committee's incremental risk document.) Given that these are now fully capitalised according to banking book charges, it seems punitive not to recognise the hedge offsetting in the market risk charges.
<p>IV. Changes to the internal models approach to market risk</p> <p>4. Quantitative standards</p> <p>718(Lxxvi)...(d) The choice of historical observation period (sample period) for calculating value-at-risk will be constrained to a minimum length of one year. For banks that use a weighting scheme or other methods for the historical observation period, the "effective" observation period must be at least one year (that is, the weighted average time lag of the individual observations cannot be less than 6 months).¹¹</p> <p>(i) In addition, a bank must calculate a 'stressed value-at-risk' based on the 10-day, 99th percentile, one-tailed confidence interval value-at-risk measure of the current portfolio, with value-at-risk model inputs calibrated to historical data from a period of significant financial stress relevant to the firm's portfolio. For most portfolios, the Committee would consider a 12-month period relating to significant losses in 2007/08 to be a period of such stress, although other relevant periods</p>		<ul style="list-style-type: none"> Allowing weighting schemes for estimating VaR can potentially produce a VaR number that is more responsive to current market conditions. However, footnote 11 "A bank may calculate the value-at-risk estimate using a weighting scheme that is not fully consistent with (d) as long as that method results in a capital charge at least as conservative as that calculated according to (d)" effectively requires the most conservative estimate across 1-year observation period to be used. This diminishes the value of the weighting scheme and the usefulness for internal risk management. Also, the capital estimation formula is additive and already reflects a conservative view in the "stressed VaR" and IRC estimates. Given this conservatism, Basel should leave it up to banks to decide the more appropriate data weighing method. The stressed VaR proposal is, at a minimum, equivalent to increasing the Pillar 1 capital multiplier from 3 to 6 (see Appendix 2A for a detailed example). Regulatory and industry discussion is required to determine the appropriate level for a new capital multiplier if this is the desired solution. Regulators and industry need to be clear about which risks are explicitly included in the VaR computation and which risks have been implicitly accounted for in the regulatory capital formula. The need for other incremental capital requirements (such as IDR) should be revisited once some

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<p>could be considered by banks, subject to supervisory approval. This stressed value-at-risk should be calculated at least weekly.</p> <p>(i) Each bank must meet, on a daily basis, a capital requirement expressed as the sum of:</p> <p>The higher of (1) its previous day's value-at-risk number measured according to the parameters specified in this section (VaR_{t-1}); and (2) an average of the daily value-at-risk measures on each of the preceding sixty business days (VaR_{avg}), multiplied by a multiplication factor (mb), plus:</p> <p>The higher of (1) its latest available stressed-value-at-risk number calculated according to (i) above (sVaR_{t-1}); and (2) an average of the stressed value-at-risk numbers calculated according to (i) above over the preceding sixty business days (sVaR_{avg}), multiplied by the same multiplication factor but without taking the "plus" as described under (k) below into account (m).</p> <p>Therefore, the capital requirement (c) is calculated according to the following formula:</p> $c = \max\{VaR_{t-1}; m_b \cdot VaR_{avg}\} + \max\{sVaR_{t-1}; m \cdot sVaR_{avg}\}$ <p>8. Treatment of specific risk</p> <p>718(L-xxxviii). The criteria for supervisory recognition of banks' modelling of specific risk require that a bank's model must capture all material components of price risk¹³ and be responsive to changes in market conditions and compositions of portfolios. In particular, the model must:</p> <ul style="list-style-type: none"> ▪ explain the historical price variation in the portfolio;¹⁴ ▪ capture concentrations (magnitude and changes in composition);¹⁵ ▪ be robust to an adverse environment;¹⁶ ▪ capture name-related basis risk;¹⁷ 	<p>clarity has been achieved concerning which risks have been accounted for both explicitly and implicitly.</p> <ul style="list-style-type: none"> • The stressed VaR ignores the fact that we can and do adjust our positions as market conditions change. This calculation will presuppose that we would keep a portfolio static through a very volatile market whereas the existence of trading limits would force us to scale back our positions in reaction. • We have operational concerns. For instance, this will require a substantial increase in processing power since we will essentially have to double the size of our VaR process. (While the Basel Committee's comment paper specifies weekly runs, in reality it will only make sense to do it on the same daily period as the original VaR.) • We would like clarification on how to account for future changes in risk factors or in the bank's book, where there would be no historical data to stress test against. We would also seek clarity on the mechanism for a bank in the future to migrate its stressed VaR model from using one stress period to another. Also, how are regulators planning to ensure consistency of application of stressed VaR across institutions? <p>The footnotes are in need of more explicit language.</p> <p>#13: Banks do not need to capture default and migration risks in regular specific risk models, as it is captured in IRC models. This seems to address the double-count issues from the previous versions. Yet, footnote #16 indicates that Banks would need to capture event risk (is default not considered an event...it was in previous versions, but not in this version?). Furthermore, banks will have to change their GSR models to remove default and migration, which will take a considerable amount of time.</p> <p>#14: According to this footnote, the regression R-squared measure can be used to demonstrate how the model explains the historical price variation in the portfolio and</p>

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<ul style="list-style-type: none"> ▪ capture event risk;¹⁸ ▪ be validated through backtesting.¹⁹ 	<p>that in such case it is expected that risk factors included in the model explain a high percentage, such as 90%, of the price variation. This looks too high given the fact that only a subset of risk factors that are relevant for specific risk modeling should be included in the model. A significant number of other risk factors are captured in the general market risk model. Should we interpret the requirement in the first bullet point and footnote 14 as applied to all models: all risk factors captured in general and specific risk models (excluding IRC) must explain the historical price variation in the portfolio?</p> <p>#18: The previous consultative paper had event risk inclusive of both equity and debt...this version only addresses equity, and only with regards to a jump in prices, but <u>not</u> jumps to zero (as experienced by default).</p>
<p>V. Changes to the supervisory review process for market risk</p>	<ul style="list-style-type: none"> • If stressed VaR is accepted as a new regulatory requirement, then the regulators should address whether institutions will have to compute a stressed specific risk VaR or whether this will apply only to general market risk. Our view is that the stressed VaR should only apply to general market risk and not specific risk.

Appendix 2A

Example - Looking at the stressed VaR proposal in a different way

The stressed VaR proposal is, at a minimum, equivalent to increasing the Pillar 1 capital multiplier from 3 to 6.

The formula presented in the consultative document (p. 12) is:

$$c = \max\{VaR_{t-1}; m_b \cdot VaR_{avg}\} + \max\{sVaR_{t-1}; m \cdot sVaR_{avg}\} \quad \text{Eq. 1}$$

If we assume that the capital multipliers (the m's) are equal to three and that a Bank's capital charge is derived from the average VaR and not the end of quarter VaR (as is usually the case) then the capital formula simplifies to:

$$c = 3 \times VaR_{avg} + 3 \times sVaR_{avg} \quad \text{Eq. 2}$$

If we further assume that the average stressed VaR will be greater the average VaR (also a reasonable assumption), then one can simply express the average stressed VaR as:

$$sVaR_{avg} = VaR_{avg} + diff_{avg} \quad \text{Eq. 3}$$

where $diff_{avg}$ is the positive difference between the average stressed VaR and the average unstressed VaR. This relationship can be substituted back into Eq. 2 to yield:

$$c = 6 \times VaR_{avg} + 3 \times diff_{avg} \quad \text{Eq. 4}$$

Equation 4 has a very simple interpretation. The capital multiplier for the Pillar 1 charge is increased from 3 to 6 and a remaining capital charge for market risk is added to reflect Pillar 2 type considerations related to risks that may not be adequately captured in the internal VaR model.

In our opinion, this is a much more straightforward way to achieve the increased total capital charge and the remaining risks (if any) can be incorporated into the Pillar 2 risks. Also, by addressing the capital multiplier directly, we believe that the discussion with industry will be much more fruitful. If there is evidence that the current capital multiplier of 3 is not sufficient, then this issue needs to be addressed directly.

As shown above, the capital impact of the proposal to use stressed VaR as an input into the market risk regulatory capital framework is equivalent to simply changing the capital multiplier from 3 to 6 and including an extra charge (if needed) within the Pillar 2 framework. At minimum, the new capital charge would be:

$$c = 6 \times VaR_{avg} \quad \text{Eq. 5}$$

If we assume that the 10-day VaR is simply $\sqrt{10} \times$ 1-day VaR then Eq. 5 becomes:

$$c \cong 19 \times VaR_{1-day-avg} \quad \text{Eq. 6}$$

The implications of Eq. 6 are important and worth discussing. The standalone capital charge of a position will be given by roughly 19 times the 1-day VaR of the position. For example, a long equity position worth \$1000 with a 1-day VaR of \$50 (not unreasonable) will attract a standalone capital charge of \$900. This is equivalent to a risk weighting of over 1000%. If the 1-day VaR is even larger, then the standalone capital charge can become greater than the value of the position itself. In

essence, the above formula will ensure that **all** market risks have been implicitly accounted for on a position by position basis if the 1-day VaR is greater than about 5.3 % of the value of the long position.

This fact (on a standalone basis) may be true for a large number of equity and commodity positions. Also, it may be true for fixed income positions if the Loss Given Default is low enough and the 1-day VaR is great enough. For example, if a long fixed income position worth \$1000 (at par) has a 1-day VaR of \$30, the standalone capital charge will be about \$570. This capital charge will be sufficient for both migration and default risk if the Loss Given Default is not greater than \$570. At this point, the importance of Incremental Risk becomes questionable on a position by position basis.

In reality, the trading book will have many positions and diversification benefits will lower the total capital charge when compared to the sum over the standalone capital charges. Thus there is the risk of underestimating the total capital requirements if the correlation assumptions are too optimistic for stressed market conditions. A natural question to ask is; should one address this risk in the VaR computation or is it a risk we want to understand through stress testing? Stress testing is one of the best ways to set correlations equal to 1 and shock position values to as low (or high – for short positions) as possible. It is through stress testing that one questions and challenges the capital numbers obtained through the use of VaR models and regulatory capital formulas. If the regulatory capital formula becomes too conservative (high capital values on a standalone basis), then the risks we are trying to identify and account for explicitly through Incremental Risk and stress testing may already be included implicitly in the Pillar 1 charge. Double counting of risks can become a serious problem.