

February 20, 2015

Mr. Ju Quan Tan
Secretariat of the Basel Committee on Banking Supervision
Bank for International Settlements
CH-4002 Basel, Switzerland

Dear Mr. Tan:

Re: CBA¹ Comments on BCBS Consultative Document: Fundamental review of the trading book: outstanding issues

The Canadian Bankers Association (CBA) welcomes the opportunity to provide comments on the limited set of revisions to the BCBS's proposed market risk framework ("CP3"). The CBA is encouraged by the revisions proposed in CP3 together with the draft annexes provided. The CBA supports the BCBS's goal to improve trading book capital requirements and to promote consistent implementation of the rules so that they produce comparable levels of capital across jurisdictions.

The CBA generally supports the joint industry response of ISDA/IIF/GFMA, and we elaborate on particular points that we would like to emphasize below.

Trading/Banking Book Boundary

The CBA feels that the boundary is ambiguous and that the list of presumptive positions requires further clarification. This resulted in many banks excluding an evaluation of the trading/banking book boundary in the recent QIS. This ambiguity has not been addressed in CP3.

Internal Risk Transfers

The CBA generally prefers GIRR Option 2, allowing residual risk to be managed in the trading book, as it offers more flexibility than GIRR Option 1.

¹ The Canadian Bankers Association works on behalf of 60 domestic banks, foreign bank subsidiaries and foreign bank branches operating in Canada and their 280,000 employees. The CBA advocates for effective public policies that contribute to a sound, successful banking system that benefits Canadians and Canada's economy. The Association also promotes financial literacy to help Canadians make informed financial decisions and works with banks and law enforcement to help protect customers against financial crime and promote fraud awareness. www.cba.ca.

The proposed amendment uses the expression “trading book portfolio”, which is presumed to combine trades across multiple desks. It is not clear if this portfolio is presumed to be a desk for the purposes of backtesting and model performance.

More generally, it is not clear in the proposal if bifurcation of structured notes will be permitted under the new rules. Current accounting allows notes with embedded options to have the derivative accounted for in the trading book, and the base interest rate risk in the banking book. The derivative is often too complex to be hedged back-to-back with the market, and is managed as other derivatives, that is, globally hedged with more basic hedging instruments. Given that current practice does not seem counter to the BCBS’s Trading Book Group’s (TBG) objectives, the CBA would like clarity that such treatment will be permitted to continue.

Sensitivity Based Approach

Refined risk factor approach

We are strongly supportive of the refined risk factor approach, which replaces the disallowance factor with a more appropriate and simpler correlation framework. This improves risk sensitivity and removes the overstatement of capital by several orders of magnitude. In addition to the improved risk sensitivity, we also feel it provides better recognition of hedging and diversification, while balancing operational and use test concerns.

Asymmetric correlations

The CBA appreciates the concept of asymmetric correlation, which is a simple approach to solve the uncertainty in this parameter.

However, the current implementation of asymmetric correlation has several unintended consequences, as pointed out by the joint industry at the January 14th meeting in Madrid. The CBA prefers the adoption of a simple and transparent approach on capturing correlation uncertainty, for example, by taking the maximum of Kb^+ and Kb^- . Here, Kb^+ and Kb^- would be determined by using a high and low correlation matrix separately.

Foreign Exchange Risk

The current proposal includes a requirement to bucket foreign exchange risk by contractual maturity. This is the sole asset class requiring trade-level information; in contrast, every other asset class can be calculated entirely based on aggregate portfolio-level sensitivities. This adds complexity to the implementation, and we feel the underlying issue can be better addressed as outlined below.

We understand that the proposal intends to capture the basis risks inherent in products such as FX forwards and cross-currency swaps. The CBA proposes to continue to capture FX spot risk (i.e., delta and curvature) in the FX asset class, and to add the capture of cross currency basis risk through the GIRR framework. A concrete proposal for this treatment is provided in the Appendix.

Securitization

The CBA generally supports the proposal in CP3 to capture both mark-to-market (MtM) loss and default loss for securitization. However, the CBA shares the concerns presented by industry at the meeting in Madrid.

- Double counting: Significantly large risk weights could exaggerate the MtM loss and potentially overlap with the default loss.
- Overcapitalization: It is also possible that applying a large spread move on the instrument could lead to a loss that is larger than the MtM.
- Bucket granularity: An improvement in the granularity of the buckets, including both product types and credit rating, is needed to further improve risk sensitivity and to avoid applying residual bucket risk weights to a large portion of the portfolio.

Vega

As with refinements to delta, we appreciate the improved risk capture of vega, in lieu of the less risk-sensitive disallowance factor.

However, the precise definition of vega risk, including the sensitivities, their correlations and aggregation with delta, has been left as an area for further refinement. Given the incompleteness, the QIS and consulting period do not leave adequate time for refinement of this measure.

Curvature

The CBA is generally supportive of the refinements made in the capture of curvature.

Given the current interest rate levels, prescriptive guidance on flooring is necessary for comparison across institutions. Given large delta charges on downward moves, models with limitations may produce artificially large curvature charges. The question is open whether the linear measure should be constrained.

Internal Models Approach

NMRF & P&L Attribution

The current proposal for non-modellable risk factors may present a major roadblock for the implementation of the FRTB. As currently stated, the requirements for actual executable prices cannot be fulfilled for crucial third-party providers and a significant portion of bank internal data, leading to disqualification of entire trading desks and large sections of the trading book from the internal models approach. Clarity is also missing with respect to eligibility of interpolated or extrapolated data (e.g., 10 or more points on interest rate curves and swaption volatility cubes).

We note that for the Fall 2014 QIS, this requirement was largely ignored by participants, and in most cases all data was used as if it was modellable. It was thus not a good indicator of the impact of the non-modellable risk factor proposal. A practical approach could tie allowed market

data to P&L attribution, internal IPV processes, and/or accounting classifications, as well as evidence of executability.

For risk factors not available in the stress period, we believe a controlled, well documented and governed use of proxy data could be preferable to the proposed scaling approach. In the Fall 2014 QIS, several banks did not include an assessment of the reduced risk factor set in the stress period. The behaviour and potential shortcomings of the scaling factor, ES_F_C / ES_R_C , have thus not been explored. We are concerned about the stability and comparability issues this may induce. For example, as market risk of the banks is largely hedged, reducing the risk factor set for the stressed period may result in simulating some portfolios as if they were unhedged for the reduced set. The unhedged positions would dominate the ES for the reduced set and result in a higher ES than the full set of risk factors. The resulting distortion of the scaled risk measure could be problematic.

Liquidity Horizons

While the recent correction of liquidity horizons for certain FX currency pairs is welcome, this introduces issues in triangular currency relationships and adds additional complexity.

For example, EUR/CAD has a 20-day liquidity horizon, but EUR/USD and CAD/USD have 10-day horizons. A bank could easily hedge a EUR/CAD exposure through the liquid pairs, and this represents actual practice. The CP3 principles generally aim to capture the time to hedge exposures by risk factor, not to liquidate the underlying position, and we feel these principles should therefore lead to EUR/CAD being considered as having a 10-day horizon. Our proposal is that the horizon should be assigned to the currency, and not the pair: any pair of liquid currencies should be considered at 10-day horizon, and all others 20-day. This would also simplify the specification of the regulations.

In addition, there is considerable difficulty in shocking EUR/CAD by 20 days but each of EUR/USD and CAD/USD by 10 days. The common practice in risk systems is to calculate all FX risk against a single base currency, and not arbitrary pairs, so the draft text would require substantial redesign of risk systems.

The CBA welcomes the scaled liquidity horizons since it will considerably reduce the operational burden and the complexity of the implementation and computation of ES, although it will have a negative impact on less liquid risk factors. Floored liquidity horizons between correlated risk factors is also a good refinement on a risk calculation perspective to cope with the different trading strategies by each trading desk.

Backtesting

The CBA believes a meaningful backtest should cover two perspectives:

- a test tying the model to desk-level P&L attribution; and,
- a capital adequacy test.

The backtest of capital adequacy should link to the calibration of capital parameters. There are a number of methodologies that have been discussed in the literature (e.g., VaR exception, average loss-tail PIT, weighted PIT). Industry will need more time to analyze these tests before making a recommendation.

Incremental Default Risk

The CBA shares views presented in the joint industry response which include:

- sovereign treatment: conservatism of the 3bp floor on default probability, as well as its inconsistency with the banking book;
- mandatory equity inclusion: the complexity of the jump-to-default (JTD) calculation for equity derivatives, in particular those with multiple underliers; and,
- correlations: option to use credit spread correlations where equity data is not available (e.g., sovereign entities).

JiLP & Model Independent

In a previous response, the CBA echoed concerns from the broader industry over the appropriateness of the model-independent risk assessment tool as a criterion for model approval and questioned the need for this tool. We have not observed any changes related to this requirement in this consultative document; furthermore, the QIS instructions do not request any information in this area. As an earlier consultative document had mentioned that the TBG was considering the model-independent assessment tool in lieu of an additional capital charge for jumps in liquidity premia, we request clarification on whether these proposals are still being considered.

We would be pleased to discuss these issues with you further at your convenience.

Sincerely,

A handwritten signature in dark ink, appearing to read "Daren Hamilton", with a stylized, cursive script.

c.c.: Greg Caldwell, Office of the Superintendent of Financial Institutions

Appendix: Cross-currency Basis in GIRR

We propose to capture cross-currency (xccy) basis risk by introducing a standalone bucket in the GIRR framework. To do so, one would need to first choose a base currency (assumed to be USD in the example below). The risk factors for this cross-currency bucket would include xccy basis spreads against this base currency. In Table 2, the risk weights for xccy basis are set to 50 bps for demonstration purposes, and would require calibration by the TBG. The correlation structure between xccy spreads is assumed to be the same as that of GIRR (this would also be subject to calibration).

The Linear Risk Capital Charge in GIRR is defined as follows

$$\text{Linear Risk Capital Charge} = \sqrt{\sum_b K_b^2 + \sum_b \sum_{c \neq b} \gamma_{bc} S_b S_c} + K_{\text{residual}} + K_{\text{xccy}}$$

Example:

- Risk sensitivities are shown in Table for the following portfolio:
 - a 5yr USDEUR \$100 million cross-currency receiver swap;
 - a 10yr USDGBP \$100 million cross-currency payer swap;
 - a 2yr USD \$50MM receiver swap; and,
 - a 3yr EUR \$75MM receiver swap.
- The GIRR risk weights, both IR and hypothetical xccy, are in Table 2.
- FX spot sensitivities are illustrated in Table 3.
- All values in USD equivalent.

Table 1: Enhanced GIRR

Bucket	Risk Factor	0.25yr	0.5yr	1yr	2yr	3yr	5yr	10yr	15yr	20yr	30yr
USD	Libor 6M	10,000									
	Libor 3M										
	...										
	OIS										
EUR	Libor 6M	20,000									
	Libor 3M										
	...										
	OIS										
...	...										
Bucket	Risk Factor	0.25yr	0.5yr	1yr	2yr	3yr	5yr	10yr	15yr	20yr	30yr
Xccy	USDEUR	48,934									
	USDGBP										
	USDCAD										
	USDAUD										
	...										

Table 2: Risk Weight for GIRR

GIRR	0.25yr	0.5yr	1yr	2yr	3yr	5yr	10yr	15yr	20yr	30yr
Risk Weight	160	160	150	125	115	100	100	100	100	100

Xccy	0.25yr	0.5yr	1yr	2yr	3yr	5yr	10yr	15yr	20yr	30yr
Risk Weight	50	50	50	50	50	50	50	50	50	50

Table 3: FX Spot Sensitivities for Xccy Swaps

FX Spot	USDEUR	2,293,055
	USDGBP	-2,223,102
	...	

I. GIRR Calculation

Step 1: Calculate K_b and S_b per currency bucket

$$S_{USD} = 10,000 \times 125 = 1,250,000$$

$$S_{EUR} = 20,000 \times 115 = 2,300,000$$

$$K_{USD} = 10,000 \times 125 = 1,250,000$$

$$K_{EUR} = 20,000 \times 115 = 2,300,000$$

$$K_{residual} = 0$$

Step 2: Calculate K_{xccy} separately for cross-currency bucket

$$K_{xccy} = \sqrt{(48,934 \times 100)^2 + (-91,025 \times 100)^2 + 2 \times 75\% \times (1 - 0.1\%) \times 48,934 \times (-91,025)} = 6,328,874$$

where 75% is the correlation between tenor 5yr and 10yr for different sign sensitivities. And 0.1% is correlation basis adjustment due to different curves, i.e., USDEUR vs. USDGBP.

Step 3: Aggregate Linear Risk Capital Charge

$$\begin{aligned} & \text{Linear Risk Capital Charge} \\ &= \sqrt{\sum_b K_b^2 + \sum_b \sum_{c \neq b} \gamma_{bc} S_b S_c + K_{residual} + K_{xccy}} \\ &= \sqrt{1,250,000^2 + 2,300,000^2 + 2 \times 0.5 \times 1,250,000 \times 2,300,000 + 0 + 6,328,874} \\ &= 9,447,768 \end{aligned}$$

II. FX Risk Calculation

$$\begin{aligned} &= 15 \times \sqrt{(2,293,055)^2 + (-2,223,102)^2 + 2 \times 0.6 \times 2,293,055 \times (-2,223,102)} \\ \text{FX Spot Capital Charge} &= 30,309,839 \end{aligned}$$

where 15 is the FX risk weight, and 0.6 is the correlation between FX spot pairs.