Andrés Portilla
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March 3, 2014

Mr. William Coen, Secretary General, Basel Committee on Banking Supervision (BCBS)
Mr. David Wright, Secretary General of International Organization of Securities Commissions (IOSCO)
Mr. Yoshihiro Kawai, Secretary General, International Association of Insurance Supervisors (IAIS)
C/O Bank for International Settlements
CH-4002 Basel
Switzerland

Re: The Joint Forum, Consultative Document, *Developments in Credit Risk Management Across Sectors: Current Practices and Recommendations*

Dear Sirs:

The Institute of International Finance (IIF) appreciates the opportunity to comment on the Joint Forum's Consultative Document, *Developments in Credit Risk Management Across Sectors: Current Practices and Recommendations*.

The IIF shares the official sector's increased focus on this important area, and we welcome the analysis of current issues and practices as an important and worthwhile initiative. We feel that this is a very useful exercise for firms and supervisors alike.

The observations and recommendations in this Consultative Document refer to models and regulatory capital, among other considerations. As the Joint Forum is aware, there is a current broader debate on banks' credit risk capital requirements and internal models, and the BCBS has concurrent Consultations on *Revisions to the Standardized Approach for Credit Risk* and *Capital Floors*, as well as the *Guidance on Accounting for Expected Credit Losses*.

The IIF RWA Task Force (IRTF) has focused primarily on credit risk modeling over the past year, including the paper *Risk-sensitivity: the important role of internal models*, and the IRTF's analysis is central to our comments here. In this context, we feel that the Joint Forum's Consultative Document makes some assertions and assumptions about banks' use of internal models that warrant revision.

Simultaneously, we note also that modeling and capital are not the exclusive focus of the Document, and that the Survey underpinning it also includes risk management, risk transfer, aggregation and collateral management within its scope. We support the Document's reference to the availability of high-quality collateral and central counterparties (CCPs), which we agree are major emerging issues.

Our comments are more heavily weighted towards banking than insurance, noting the criticality of credit risk to banks, and the fact the risk and capital regulatory framework is currently more developed in banking. We have structured these comments around the Document's four specific areas of observations and recommendations, as follows:

1. Evaluation and management of credit risk (internal models and simpler approaches):

We share the view that risk management (including reporting, governance, aggregation and stress testing against internal models) has improved in recent years, and we agree that using multiple views of risk is good practice in the effective management of risk.

However, we feel some clarification is needed in respect of some claims the Document makes about internal models, and some assumptions made about how risk and capital measures are used within firms.

Firstly, we are surprised at the claim from some supervisors that internal models could mask increased risk-taking, and that simpler approaches are consequently required.

We hold a contrasting view on this – that simple, blunt approaches (such as Basel I, the Basel II Standardized Approach, and the Leverage Ratio) each overlook borrowers' creditworthiness, security and recovery rates, and are in fact the measures that would mask increased risk-taking. For instance, the following represents a range of RWA and Returns outcomes for lending to corporates across the credit spectrum, under a range of a 'simple' and IRB-based approaches:

EXAMPLE: CORPORATE LOAN RWA, PRICING & RETURNS

Scenario: 5-year loan for $10 million, at indicative market spreads

		Investment Grade			Non-Investment Grade		
Indicative equivalent rating		A+	A-	BBB	BB	BB-	B+
Risk Variables	EAD	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000
	PD	0.05%	0.10%	0.25%	1.00%	2.50%	4.00%
	LGD	50%	50%	50%	50%	50%	50%
	Expected Loss (EL)	0.025%	0.050%	0.125%	0.500%	1.250%	2.000%
Market Spreads		1.00%	1.50%	2.00%	3.50%	4.50%	5.50%
Simple-1 (no risk sensitivity)*	Risk-weight	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
	RWA	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000
	Return on Capital	3.41%	5.08%	6.56%	10.50%	11.38%	12.25%
Simple-2 (Standardized, if externally rated)**	Risk-weight	50.0%	50.0%	100.0%	100.0%	150.0%	150.0%
	RWA	$5,000,000	$5,000,000	$10,000,000	$10,000,000	$15,000,000	$15,000,000
	Return on Capital	6.83%	10.15%	6.56%	10.50%	7.59%	8.17%
Advanced IRB Approach	Risk-weight at commencement	40.4%	57.6%	89.0%	148.9%	184.3%	203.9%
	RWA at commencement	$4,044,890	$5,755,273	$8,898,512	$14,885,700	$18,425,281	$20,389,692
	Ave. risk-weight over full loan life	24.5%	36.8%	60.9%	112.8%	148.6%	169.4%
	Ave. RWA (loan life)	$2,448,100	$3,675,642	$6,094,566	$11,281,093	$14,859,541	$16,943,514
	Return on Capital	13.94%	13.81%	10.77%	9.31%	7.66%	7.23%

* the 'Simple-1' capital measure with no risk sensitivity is reflective of Basel I, the Basel II Standardized Approach for entities without external ratings, and the Leverage Ratio

** the 'Simple-2' measure reflects the Basel II Standardized Approach for borrowers with external ratings, thereby precluding small corporates and SMEs, as well as economies where only a very small proportion of the corporate sector might have external ratings (eg. in Emerging Markets).

Calculation assumptions are listed in the Appendix.

As the example scenarios highlight, it is the simple approaches that mask risk-taking. Measures such as Basel I or the Leverage Ratio (with no risk-sensitivity) will view all exposures equally, including at the weaker end of the credit spectrum ('B+' in this example). A simple approach with limited sensitivity (such as the Basel II Standardized approach for externally-rated entities) only partially addresses this (and only for a small sub-set of exposures), materially under-stating the level of credit risk taken on.

Furthermore, if the measure of capital used is not risk-sensitive, the Returns metric will merely reflect the impact of the spread (or gross revenue) earned, thereby encouraging firms and their staff to concentrate their efforts on weaker-rated borrowers.

A risk-sensitive capital view (with regulatory capital based on IRB or economic capital) reflects the risk-return equation much more accurately – highlighting where greater risk is being taken, and supporting a much more appropriate incentive structure. This holds not only for banks' corporate lending scenarios as illustrated above, but equally for insurers' investments in bonds.

Consequently, we suggest that the Joint Forum's Recommendation be amended to highlight the risks that can be posed by simple approaches, in masking risk, and in creating mis-incentives that are contrary to prudent management and pricing of the true credit risk.

We note some of the adverse references made to internal models, and the suggestion that firms might intentionally design those models to minimize capital requirements. Given (i) rigorous back-testing, (ii) increased independence of risk management functions from revenue units, (iii) intense supervisory review of all models, and (iv) the use of rigorous stress testing as a check on static models, we believe this concern is unnecessary, and dwarfed by the shortcomings from using simple, standardized models.

Secondly, the suggestion that simple approaches should be used as a complement to sophisticated models is one that needs to be considered carefully.

As firms manage their business on a day-to-day basis (ie. beyond capital adequacy at the top-of-house, in their pricing decisions, portfolio management and remuneration incentives for staff), they seek to optimize their business under multiple constraints. In the scenario of a clash between capital measures, the critical issue for how a bank operates and behaves is about which capital measure is to be the prevalent one – the binding constraint.

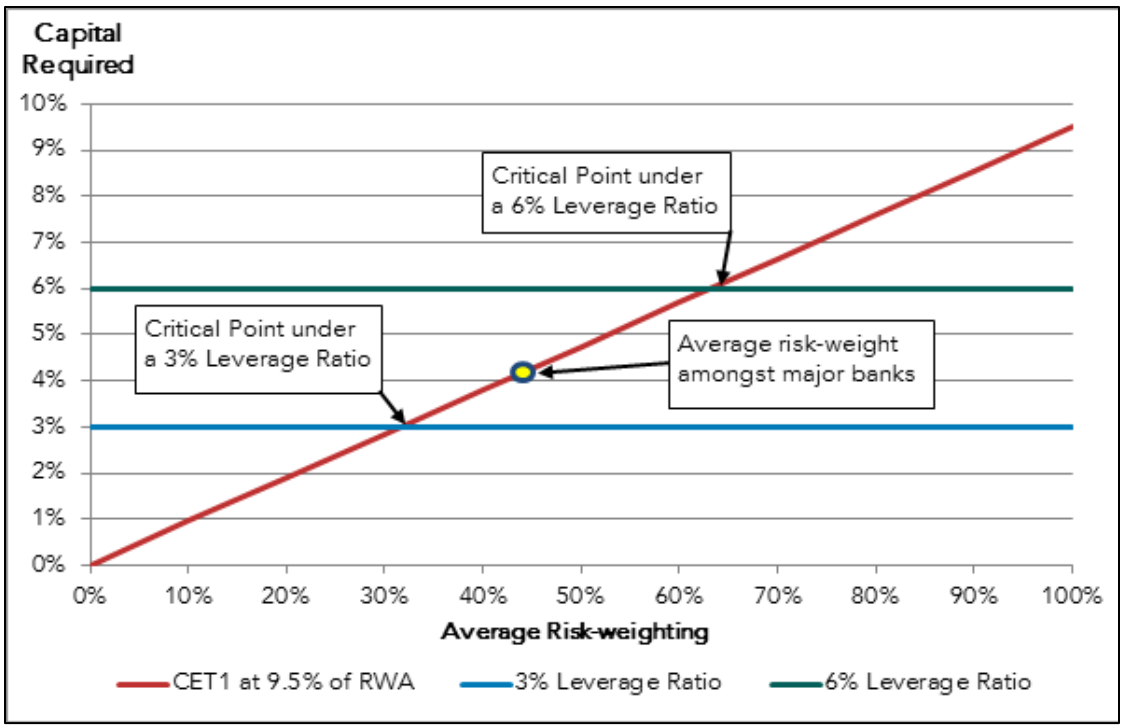
Managing to the twin constraints of a risk-based capital measure (such as that from internal models) and a simpler, blunter approach (such as the Leverage Ratio) creates a scenario of constrained optimization. An efficient and rational bank will optimize to the measure that is the scarcest resource, whether that is risk-based capital or the "simple" capital measure.

Consequently, an alternate simple measure might not so much be a "complement", as one that serves to over-ride others, subjugating risk-sensitivity and masking the true risk.

This can be considered under the concept of the 'critical risk-weight', where multiple capital approaches intersect, as highlighted by the Bank of England in their 2014 Consultation Paper on the Leverage Ratio.[1] As shown in the following diagram, at a level of 3%, the Leverage Ratio is effective as a 'back-stop' measure, where it only becomes the chief constraining measure for banks that have very low average risk-weights, without unduly impeding the operation of a risk-sensitive capital framework for the majority of banks, with a critical point at a risk-weight of 31.6%.

[1] Bank of England, *The Financial Policy Committee's Review of the Leverage Ratio: A Consultation Paper*, July 2014

However, if the Leverage Ratio is calibrated much higher at 6%, the critical risk-weight is 63.2%, well above most banks' risk profiles. In this scenario, the Leverage Ratio ceases to be a 'backstop', and instead assumes the role of the primary measure: the binding constraint.



Calculation assumptions are listed in the Appendix.

We maintain that if calibrated at a moderate level, a simple measure such as the Leverage Ratio can be useful as a means of detecting and over-riding extreme outliers, without impeding the role of risk-sensitivity as a behavioral driver. Under such a calibration, it would indeed serve as a "complement". But if that simple measure is calibrated too high, it becomes the binding constraint and over-rides accurate and sensitive views of risk for all.

In many cases, firms have attempted to blend multiple capital approaches in their internal operations, either necessitating a form of cross-subsidization or the use of unstable scaling factors, to reconcile the competing measures. Such approaches have profound limitations, and inevitably end up lacking credibility, underscoring the need for caution when bringing simpler approaches into the management equation.

We note that the BCBS's recent *Guidance on Accounting for Expected Credit Losses* advocates the use of common systems and tools across the assessment of risk, the pricing of credit risk, and accounting for expected credit losses.[2] We concur on the need for such alignment, and are concerned at suggestions that might take credit risk capital requirements in a contrary direction.

Concurrently, we do recognize that the level of variation between banks' models has been too large. We concur with the Joint Forum's observations on this and also on the variations in regulators' approaches to validation and approval of models. The variance in banks' models is what motivated the IRTF's substantial activity in 2014, with detailed analysis of banks' modeling practices that culminated in 78

[2] Basel Committee on Banking Supervision, *Consultative Document: Guidance on accounting for expected credit losses*, February 2, 2015

recommendations on specific items that banks should harmonize in their modeling practices and assumptions.

We agree that models need to be improved, as a continuous and ongoing endeavor. The IRTF's 78 recommendations will reduce the level of variation to just those legitimate factors that reflect different risk profiles and practices, and we believe that firms and regulators should work together to pursue this.

On the noted change in regulators' appetite, we believe that the strict regulatory governance of banks' models must be maintained, and enhanced where necessary, to ensure the consistent application of high quality regulation and supervision. We endorse the views previously articulated by Bank of England Deputy Governor Andrew Bailey, that in assessing and reviewing models, regulators should have the skills and the empowerment to revoke an approval if a model is unsatisfactory or if a firm has not demonstrated the capacity to use it appropriately.[3]

We believe that the Consultative Document also overlooks the significant diversification benefits that come from an internal models approach. A single, standardized risk measurement methodology, if established as the binding constraint, forces all firms into the same trades and guarantees that disruption in an asset class favored by the standardized model will have broad and deep systemic ramifications.

Similarly in the insurance sector, as indicated in our recent joint submission with The Geneva Association on the IAIS's *Risk-Based Global Insurance Capital Standard* Consultation, internal models facilitate a risk-sensitive approach to capital adequacy that considers each insurer's idiosyncratic risk profile. Internal models provide supervisors with transparent insights into insurers' risk management practices, and enable a linkage between firms' risk management and prudential measures.

In both banking and insurance, we believe that models have a critical and highly beneficial role to play, and they should therefore be improved, not abandoned or over-ridden.

2. Search for yield

We agree that low interest rate environments can create pressure for some firms to alter their risk tolerances. Whilst we don't believe this has manifested itself as a widespread trend in the current cycle (and indeed, many firms have been actively deleveraging), it is agreed that firms' Risk teams and supervisors alike need to be conscious of this risk.

This underlines the need for risk-sensitive measures (and capital requirements) to be at the forefront of how firms assess business opportunities and performance, for banks and insurers alike. Consistent with the Basel Use Test for banks, applying a risk-based capital measure in pricing and performance metrics (for instance, in the denominator of Returns calculations) is an important tool for empowering the Risk function in internal strategic discussions and individual investment decisions.

In contrast, a simple measure, such as banking's Leverage Ratio or Standardized approach, won't adequately detect or reflect such shifts in the risk profile (either desired or realized), and actually encourages banks to move down the risk curve to optimize their Return on Capital, causing adverse selection on lending or investment portfolios.

[3] Andrew Bailey, Bank of England, speech *The Capital Adequacy of Banks: today's issues and what we have learnt from the past*, July 10, 2014

In addition to the corporate loan scenarios illustrated above, the tendency of simpler measures to encourage greater risk-taking is also demonstrated by the treatments applied to prime and sub-prime mortgages under the pre-crisis Basel I regime, as opposed to the risk-based Advanced IRB approach. This is depicted in the following:

MORTGAGES UNDER ALTERNATE CAPITAL REGIMES

Scenario: $300,000 mortgage

		Prime Mortgage	Sub-prime Mortgage
Risk Variables	Exposure at Default (EAD)	$300,000	$300,000
	Probability of Default (PD)	0.5%	3.0%
	Loss Given Default (LGD)	25.0%	40.0%
	Expected Loss (EL) = PDxLGD	0.125%	1.200%
Market Spreads (over funding costs)		150bp	260bp
Basel I	Risk-weight	50.0%	50.0%
	RWA	$150,000	$150,000
	Return on Capital	9.6%	9.8%
Basel II Advanced IRB Approach	Risk-weight	21.0%	107.5%
	RWA	$63,143	$322,524
	Return on Capital	22.9%	4.6%

Calculation assumptions are listed in the Appendix.

Under a simple approach such as Basel I (or the similarly flat Basel II Standardized approach), the RWA is constant across both the prime and sub-prime segments, incentivizing banks (and their staff) to concentrate on lending to weaker-rated borrowers. Even when the sub-prime segment's higher Expected Loss (EL) is factored in to the Return on Capital calculation, this merely absorbs the higher spread.

In times of low interest rates, such simple measures serve to reinforce the incentives for firms (and their staff) to look for assets further down the credit curve, where they will incur no added capital penalty, but will earn higher spreads and generate a better return.

However, using internal models under the Advanced IRB approach, the impact of the PD and LGD is also reflected, generating RWA values that more accurately reflect the true risk of each asset. This creates a wide disparity in the Return on Capital, incentivizing firms to direct their efforts towards the lower-risk segment, and combatting any push for higher-yielding assets.

Accurate and informed assessment of the risk-reward equation is critical to risk tolerances, and this demands that sophisticated risk measures have a central role in firms' capital and returns metrics.

3. OTC derivatives

We share the Joint Forum's observations on the growing demand for high-quality liquid collateral to meet margin requirements, and the emerging challenges in availability of appropriate collateral. We are pleased that the Document identifies this, and we agree that this warrants further monitoring and evaluation.

We feel there is one additional point that should be noted, in that the challenges in collateral availability are caused not only by margin requirements for OTC derivatives, but also other regulations that could impact demand for the same assets. These include the haircuts on repurchase and reverse-repurchase agreements, and with the Liquidity Coverage Ratio (LCR) causing banks to increase their holdings of eligible High Quality Liquid Assets (HQLA).

In general, the definition of acceptable assets for margining and LCR purposes are very similar, meaning that these separate sources have an effect of compounding demand for the same securities, further exacerbating their potential scarcity.

With the LCR having taken effect on January 1, 2015 (and only at a 60% requirement in many jurisdictions), this factor may not yet have been observed by the Joint Forum's Survey respondents (although some banks had been actively accumulating HQLA in preparation). In this case, it should be noted that this will be an additional impact, still to be realized as a cumulative impact on top of what the Joint Forum's Survey identified.

We note that the recent BCBS-IOSCO *Margin requirements for non-centrally cleared derivatives* highlighted the need for monitoring and evaluation, and also rightly identified repurchase agreements and the LCR implementation as relevant factors that should be considered.[4] We support the BCBS and IOSCO's identification of these issues, and we suggest including this in the Joint Forum's Document also.

We also commend the Joint Forum for identifying the region-specific issues in jurisdictions where there is a low level of government indebtedness and/or local markets that are too small to have private securities that are truly "liquid". Once again, this is an issue both for derivatives margins and the LCR, in economies such as Australia, South Africa and various Emerging Markets.

4. Central clearing

We share the Joint Forum's view that firms are developing an increased exposure to CCPs, and that firms and supervisors need to monitor this closely.

To expand on this, we suggest that the capturing and reporting on positions with CCPs should reflect net exposures, taking into account credit risk mitigation tools available, including initial margin and variation margin.

We also recommend that the Joint Forum co-ordinate with the BCBS's data aggregation developments, and initiatives such as the Legal Entity Identifier (LEI).

We also feel that the CCP regulatory landscape requires refinement, including the capital requirements and plans for the recovery and resolution of CCPs, and we support the efforts that the regulatory community has initiated in this regard.

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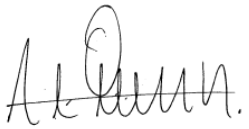
[4] Basel Committee on Banking Supervision and International Organization of Securities Commissions *Margin requirements for non-centrally cleared derivatives*, September 2, 2014

The IIF hopes that these comments are helpful for the Joint Forum in finalizing its observations and recommendations. We reiterate our support for this initiative, and we are most willing to assist in the further analysis, clarification and refinement.

We welcome a close dialogue with the BCBS, IOSCO and the IAIS on this important matter. In this regard, we look forward to opportunities for formal exchange of views on this topic, either through industry outreach sessions, colloquia or symposia. As in the past, the IIF stands ready to provide opportunities for such dialogue and to provide further input and any necessary expansions or clarifications on all of our comments.

Sincerely,



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Managing Director, Regulatory Affairs

Appendix: Calculation Assumptions

In each of the worked examples of RWA, Pricing and Returns, the following assumptions have been made within the Return on Capital calculations:

- Target capital ratio equivalent to 10% of RWA
- Cost:Income Ratio (or 'Efficiency Ratio') of 50%
- Tax rate of 30%

In the corporate lending examples, the Returns calculation has reflected a weighted averaging approach to the RWA calculation over the full tenor of the loan facility. The corporate lending Return on Capital is purely for the loan facility, acknowledging that bank pricing decisions will often factor in the full client relationship Return, including other products such as derivatives.

In the critical risk-weight diagram:

- 9.5% Common Equity Tier 1 Capital ratio, based on RWA (as per the top threshold of G-SIBs)
- Average major bank risk-weight is estimated at approx. 45%, as per annual reports from the G-SIB banks (2013 data).