16th April, 2014

Ju Quan Tan
Member of the Secretariat, Basel Committee on Banking Supervision
Basel Committee on Banking Supervision- Bank of International Settlements
Centralbahnplatz 2, CH-4002 Basel, SWITZERLAND

Sent by email to: Juquan.Tan@bis.org; baselcommittee@bis.org

Re: Industry Response to the Revised Standardized Approach for Market Risk

Dear Mr. Tan,

This letter contains initial comments from the International Swaps and Derivatives Association, Inc. ("ISDA"), the Global Financial Markets Association ("GFMA") and the Institute of International Finance ("IIF", together "the Associations"), on the revised Standardized Approach for Market Risk in response to the letter from the Basel Committee on Banking Supervision ("BCBS") dated 10th March 2014 on this matter.

First and foremost, we want to express the industry members' appreciation on the efforts made by BCBS to incorporate their comments in response to the second Consultative paper (CP2), published by BCBS in October 2013, regarding the Fundamental Review of the Trading Book ("FRTB"). It is acknowledged that the implementation of a standardized method that strikes the right balance between simplicity and risk sensitivity is a convoluted task.

More specifically the industry believes that the Sensitivity Based Approach ("SBA"), as put forward by the BCBS, constitutes a significant improvement to the previous version of the methodology and is in line with industry recommendations on leveraging upon existing validated risk metrics to calculate the market risk capital requirements. As such, we view it as an important step forward in the FRTB agenda.

The Advanced Cash Flow Approach ("ACFA") methodology, on the other hand, is not computationally supported by existing infrastructure, since cash flow data are not captured at the trade level. As a result, industry members would require extensive resources to adhere to currently proposed regulatory timelines whilst achieving little in terms of enhancing the risk sensitivity of output metrics. This would be particularly onerous for smaller organizations.

In summary, the industry would like to highlight the following:

1. **The SBA constitutes the preferred methodology since it utilizes proven risk measures that are more closely aligned to the ones typically used by industry for risk management**. In contrast, the ACFA fails in this respect since it would require the development of new models, with the introduction of new assumptions and significant infrastructure system changes. Furthermore its

implementation will lead to a divergence between the capital metrics reported for regulatory purposes and the risk measures used for firms' own risk management processes and controls;

2. **In its strong support for the SBA, the industry believes there remain some areas where further analysis and calibration of the revised SBA is warranted**. Due to the limited timeframe provided for industry's feedback, this letter outlines only the main possible calibration areas, as identified to date, with examples included in the Appendix;

3. **More time should be provided to industry** so as to fully analyze the different components of the methodology and come back with more comprehensive comments. In addition, if the next release of the proposed framework contains significant changes to the definitions of risk sensitivities or other aspects of the methodology, then the industry suggests that the BCBS proceeds with a second round QIS on a hypothetical portfolio before going ahead with a full firm–wide exercise.

Please be assured that we remain fully committed to constructively participating in the on-going consultative process for advancing the FRTB agenda. We sincerely hope that you find our comments helpful.

Yours faithfully,

Mark Gheerbrant	David Strongin	Andres Portilla
Head of Risk and Capital	Executive Director	Director, Regulatory Affairs
ISDA	GFMA	IIF

A) ADVANCED CASH FLOW APPROACH (ACFA)

The points raised by the industry during the meeting with BCBS on 17th December 2013, as well as those communicated in the written response to CP2 earlier in the year, are outlined below. We acknowledge certain improvements have been introduced in the ACFA based on industry's comments. We still believe, however, that there are fundamental conceptual and operational issues that would prevent the timely and orderly introduction of such an approach.

New models would need to be developed to construct interest rate curves, project floating-leg and contingent cash flows and subsequently discount the cash flows with implied OAS

The implementation of the new BCBS-prescribed cash flow and implied OAS models will lead to additional complexities in financial institutions' models as a significant number of assumptions will need to be introduced in order to facilitate the modelling of the cash flows at the required level of detail. Furthermore the new models will take considerable time to test and calibrate based on prior experience before real portfolio data are made available.

New validation and control procedures that would allow the day-to-day production of the cash flow data would need to be introduced

For financial institutions to source the cash flow data on a daily basis, significant investment, resources and time will be required as very large databases will have to be linked across trading systems in various geographical locations, increasing operation complexity and risk. These regulatory capital processes would also run independently of a firm's own risk management processes and measures that rely on sensitivity measures, leading to a divergence between the two.

Cash flow data for each underlying instrument is difficult and costly to source considering the banks' current risk system structure and data availability

As previously communicated there is a significant cost factor in order for financial institutions to be in position to calculate standardized charges based on the cash flows of each instrument as these models are not currently available and would require significant investment in resources and time to develop and verify. Considering that the standardized approach would primarily apply to financial institutions that do not possess the necessary resources and expertise to develop internal risk models, this would be a great challenge to meet.

B) SENSITIVITY BASED APPROACH (SBA)

The industry welcomes the opportunity to provide commentary on the SBA and herein denotes its strong support for this alternative, as previously communicated to the BCBS. Below we discuss the benefits of the SBA, provide additional comments on the methodology and highlight points for clarifications in light of contributing to the further refinement of the approach.

SBA leverages on existing models and risk metrics

Financial institutions have extensively used the sensitivities of risk factors for a variety of monitoring and management functions and have, therefore, developed detailed and well-documented processes to guarantee the consistency and reliability of data and outputs. The advanced stage of existing models reflects the industry's investment over a long time horizon, in terms of development, fine-tuning and back-testing, and should be used as a basis for the regulatory capital requirement calculations.

The latest version of the SBA still requires more detailed and precise definitions of risk sensitivities, however, in order for them to be applied consistently across the industry and hence achieve the desired level of standardization. For example, interest rate conventions for coupon payment and compounding frequency, day count and business days vary by product and currency, but would require uniform application for consistent risk sensitivities. The industry would welcome the opportunity to interact with the BCBS in this regard given its paramount importance to the correct application of the SBA.

Reduced operational complexity

As communicated in previous interactions with the TBG, the utilization of existing validated risk metrics that are universally used by industry members, allows for consistency and comparability while at the same time avoids unnecessary operational complexity that is bound to impact the implementation timeline. Worthwhile noting that the QIS on SBA may exhibit some volatility in the results across banks but it would be mainly the consequence of some differing interpretation of the text where it lacks clarity (for instance spread curves to be used). In addition, the risk sensitivities that form the basis of the SBA are used widely across the industry as an integral part of the risk management framework not only in the larger institutions but within smaller banks. There are numerous vendors and applications available to the industry participants which could mitigate significantly the implementation burden especially for smaller organizations even if they do not currently utilize risk sensitivity metrics. This is in diametric contradiction to the operational complexity faced by a less complex institution that would need to implement the ACFA.

Offsetting, aggregation and diversification preserved

One of the key goals of the FRTB in regards to the standardized approach was to preserve the offsetting, aggregation and diversification that was specified in CP2. This is achieved with the introduction of the risk sensitivities in the computation process as these can be mapped to the various risk buckets in each risk category.

Standardized approach floor in the capital requirement calculation

As mentioned in our response to the second consultation paper, we recognize the regulators' concerns about internally modeled capital requirements and the desire for more comparability between risk positions across the industry. However, we believe that the standard approach (SA) based capital level should not be used as a direct floor to internally modeled capital as application of such floors will not provide the right incentives for continuous improvement of risk models. Instead, it may lead to transformation of risk appetite across firms in a way that substantially reduces the sensitivity of risk management practices to real economic risks of a particular trading business. This is as the SA's simplistic risk factor approach is unlikely to help identify risks that may build up outside the SA "model".

Additionally, the industry notes that using SA as a floor to modeled capital is closely linked with the disclosure requirements (as the disclosure is likely to make it a floor in stakeholders' eyes) and the industry believes that the use of SA directly as a floor will lead to similar unintended consequences as the disclosure requirements.

The industry is willing to engage with the TBG to help identify other ways to reduce the variance in modelling outcomes, especially if they produce inadequately low capital levels under certain stress scenarios as well as for more complex trading positions. We believe that the TBG's objectives are better achieved through model portfolio exercises in combination with harmonization of supervisory approval practices rather than through a SA based floors.

In addition to our main comments above, there are a number of areas that require additional consideration to further enhance the SBA. This should not take away from the fact that the industry participants strongly believe that the introduction of the SBA is a pivotal development in enhancing the standardized approach. We remain committed to support the TBG and the wider BCBS in building on the foundations of the SBA that have been laid out in the consultation paper.

C) GENERAL OBSERVATIONS ON SBA

As an overarching and self explanatory principle, we strongly advocate that the total risk weight for any of the instruments in scope of the capital requirement calculation should not attract a capital charge greater than the maximum potential loss. We would therefore support incorporating a cap in the methodology to ensure that total market risk requirements cannot exceed the maximum potential loss.

In addition, the SBA does not provide for any netting or potential correlation benefit between different risk factors. The industry believes that this introduces a degree of conservatism that should be taken into account with respect to assumptions in the calculations as prescribed in other areas.

General Interest Rate Risk (GIRR)

The initial observations below largely relate to model calibration, which we would expect to be addressed as part of an iterative QIS process. In the Appendix we provide numerical examples in support of the initial analysis presented below:

- The inter-curve basis correlation of 0.9 looks too low when compared to correlations calculated from (20-day overlapping) historical returns over stressed market periods, particularly for longer tenors (i.e. 5y and above). In initial comparisons against internal models for real (sub-)portfolios this appears to be the largest source of difference. The 0.9 factor to account for netting and diversification on a given vertex applied under the SBA does not result in a 90% offset as is the case under the ACFA. See Appendix for numerical example;
- The introduction of different sign tenor correlations is a significant cause of difference between SBA and internal model results for actual firm (sub-)portfolios. Current proposal prescribes the use of two different correlation matrices depending on whether the (net) positions by tenor are of the same sign (i.e. risk accumulating) or of different sign (i.e. risk diversifying). It has been observed that this effect can increase the SBA by around 100% as compared with using the same sign correlations only. The same sign correlations are more consistent with those observed empirically and used within the firm internal models;
- The proposed algorithm to derive the capital requirements for each currency introduces cliff effects. This results from some non-linear features of the proposed methodology. The main issue is with the allocation of a sign to the aggregated sensitivity on a vertex (paragraph 49);
- The designated interest rate shocks by tenor look somewhat conservative when compared to (20-day overlapping) historical returns, and furthermore could be calibrated to differentiate more effectively between tenors - for example, all tenors above 3m are given the same shock of 100bps. However, this does not appear to have as significant an effect on the SBA results as the choice of basis and tenor correlations.

Credit Spread Risk (CSR) Non Securitizations

The steps to get to each bucket capital requirements are prone to the same shortcomings as the ones described in the GIRR section:

- There is very little offsetting due to the low 0.9 factor;
- Cliff effects arising from the non-linear feature of the methodology of paragraph 59;

- The shocks prescribed for CSR will result in inconsistent results in some instances. For example some products receive a 1000 basis point shock regardless of maturity. This may be perfectly reasonable for a 2y maturity, but for a 20y maturity, this can result in a capital requirement larger than the market value of the instrument. This issue cannot be adequately resolved by calibrating the size of the shock. Fixing the 20y may result in too small a shock to the 2y. To simultaneously get reasonable shocks for all tenors, the calculation should apply different shocks for different tenors;
- While we support the approach for CSR, we recommend working on an improved way to deal with high convexity products, either through gamma sensitivities or PV changes at the level of the shock for each tenor.

Credit Spread Risk (CSR) Securitizations

As an initial matter, we believe the granularity of the classification of securitization instruments is too narrow and that the CSR shift component for securitizations is too severe. If the BCBS is amenable, we plan to continue to work with our members to develop a more granular grid of securitization instrument types, as well as specific suggestions for CSR shifts and would provide this work product to the BCBS.

- Granularity: The proposal segments securitization into the following categories: corporate CDOs, RMBS/CMBS, Credit Card ABS, and "Residual". Residual would include any instruments not captured in the above categories. There are a number of asset classes which we believe should comprise their own category, and receive their own specified shift. Applying the proposed 1750/5000bp shift for many of these products would result in unjustifiably high capital requirements for products which have not experienced such historically large spread movements. Correlation assumptions within and across buckets appear to be very punitive. Only zero diversification or independent aggregation (disregarding effective hedging relations) is permitted. As mentioned above, we would be pleased to provide a suggested grid at a later date;
- CSR Shifts: The shifts applicable to securitization exposures (paragraphs 66, 69 and 70) are very high, and materially higher than what they were in the October consultative document. We are questioning the basis of this upward revision of shifts since, for example:
  - Investment grade corporate CDOs are attributed a 300bp shift while it stood at 180bp in the previous consultative document;
  - Investment grade MBS is attributed a 800bp shift whereas in the previous paper the shift ranged between 90bp and 530bp depending on the credit quality.
- As proposed, these shifts are generally significantly higher than historical experience with these products. As mentioned above, we would be pleased to provide the committee with further analysis of historical spread movements in various securitization asset classes. In the Appendix 1 we provide numerical examples for two asset classes to highlight the significant divergence of proposed spreads with market reality;
- On the severity of shocks, the proposed set of shocks to be applied does not appears to reflect a "convexity adjustment" type of effect. In other words these proposed shocks assume that the Market Value of a credit trade (and its CS01) remains constant even after applying a very large shock. While this assumption is feasible when small shocks are applied, the same assumption leads to large overestimation of the risk under the scenario of very large shocks. We strongly recommend to TBG to consider such aspects while calibrating the shocks.

Default risk - securitization

- We note that there are a number of components of the calculation of the total risk weight for any particular instrument, for example an interest rate charge and a currency charge. We suggest these separate calculations should be calibrated or capped such that, at an aggregate level, the capital requirement for a given instrument does not, in aggregate, exceed the worst case loss.

Options non delta risk

- In the same way as for securitization exposures (referred to above) the rules should include a cap on capital requirements for options at the total amount of worst case loss for any particular instrument. This is particularly relevant for discontinuous options such as barriers or digitals where the delta capital requirement could be very large, but a separate non-delta charge would still be required (based on the Section I scenarios approach) and thus could result in aggregate capital requirements that exceeds the worst case loss.

APPENDIX 1: EXAMPLES OF POSSIBLE CALIBRATION ISSUES IDENTIFIED TO DATE

General Interest Rate Risk (GIRR)

- We are questioning the value of the factor to account for netting and diversification on a given vertex (paragraph 49). We understand that the underlying idea is to account for basis risk and to prevent full netting between opposite positions on different curves. The ACFA approach allows only a 90% offsetting between cash flows on different curves (Annex-1 paragraph 113). However the factor of the sensitivity based approach, which serves the same purpose, does not represent the same quantity. To materialization a basis risk with 90% offsetting as in the ACFA, the factor of the paragraph 49 equation should be set to 0.995. With a factor set to 0.9, there is only 44.7% offsetting taking place. This is illustrated in the below example:

				Correl	
Pos.	Curve	Vertex	Quantity	0.9	0.995
1	k	i	WS	1,000	
2	k'	i		-1,000	
		i	AWS	447	100

- The proposed algorithm to derive the capital requirements for each currency introduces cliff effects. This results from some non-linear features of the proposed methodology. The main issue is with the allocation of a sign to the aggregated sensitivity on a vertex (paragraph 49). Thus, two almost identical portfolios may on a vertex be allocated opposite aggregated weighted sensitivities. When deriving the capital requirement with the formula of paragraph 50, aggregated weighted sensitivities may then either offset each other or add-up.

  Bellow, we provide an example of two almost identical portfolios with sensitivities on two curves, k and k', and two vertices, i and i'. Though the two portfolios are near identical, the capital requirements of the second portfolio is more than double the one of the first portfolio.

				Portfolio	
Pos.	Curve	Vertex	Quantity	PTF-1	PTF-2
1	k	i	WS	999	1,001
2	k'	i		-1,000	-1,000
3	k	i'		450	450
		i	AWS	-447	447
		i'		450	450
			Kb	347	827
				$\rho_{i,i'} = 70\%$	

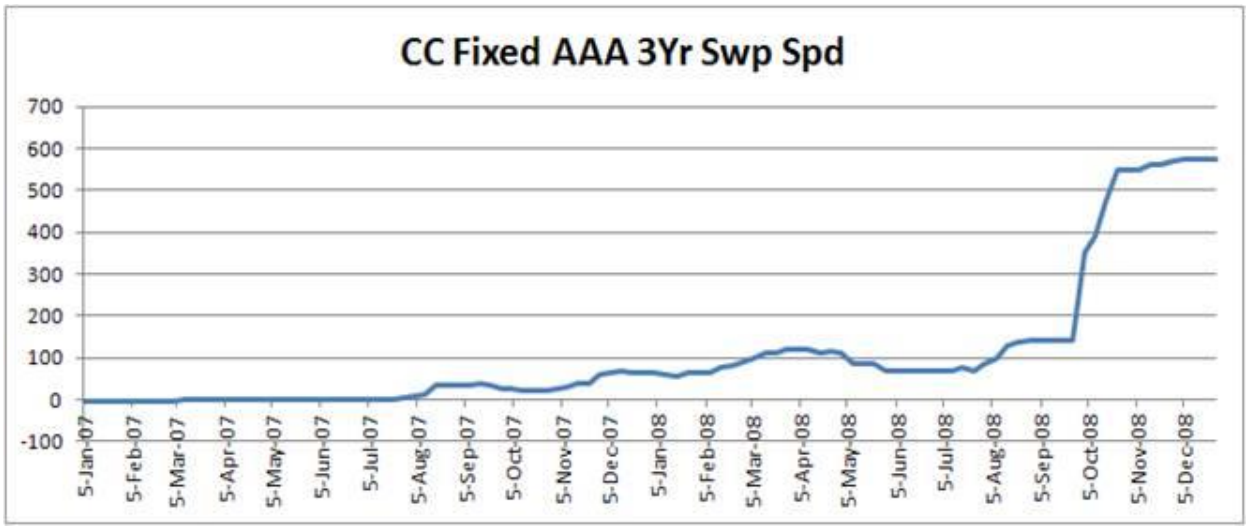
  The above example has assumed an identical correlation factor of aggregated weighted sensitivities (set to 70%). In practice, the use of different correlation factors based on vertices signs will generate additional cliff effects.

  Note that this issue is not restricted to the SBA but affects equally the ACFA.

Credit Spread Risk (CSR) Securitizations

Below we provide two examples of historical spread movements to illustrate our point on inappropriateness of the proposed credit spreads for specific asset classes.

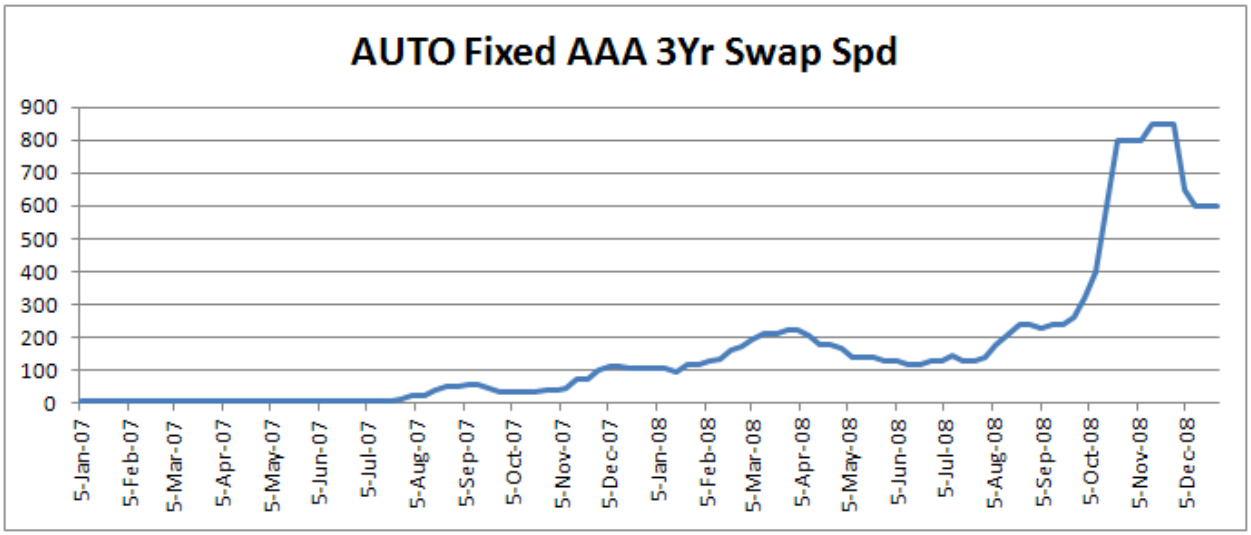
- *Credit Card ABS*: These statistics show the largest peak-to-trough moves for different time horizons since 2007. Peak-to-trough moves for BBB cards are also significantly below the proposed spread moves of 1300 (credit cards IG) for time horizons up to about 70 days.



Jan 2007- Dec 2008 (vs. Swap)			
		Spd	Date
Whole Period	Min	-4	9-Feb-07
	Max	575	4-Dec-08
	Max widening	**579**	
90 days	Min	85	31-Jul-08
	Max	550	23-Oct-08
	Max widening	**465**	

20 days	Min	140	25-Sep-08
	Max	470	16-Oct-08
	Max widening	**330**	
10 days	Min	140	25-Sep-08
	Max	390	9-Oct-08
	Max widening	**250**	

- *Auto Loan ABS*: Auto loan ABS are not a category with assigned spread movement in the proposal, therefore they would be assigned to the "Residual" category with 1750/5000 basis point shifts used for calculations. The chart below shows that auto loan ABS has experienced significant smaller spread movements than classification in the "Residual" category would provide.



2007-2008	Spd	Date
Min	5	2-Feb-07
Max	850	13-Nov-08
Max widening	**845**	

13 weeks	Spd	Date
Min	140	31-Jul-08
Max	800	23-Oct-08
Max widening	**660**	

3 weeks	Spd	Date
Min	320	2-Oct-08
Max	800	23-Oct-08
Max widening	**480**	

2 weeks	Spd	Date
Min	400	9-Oct-08
Max	800	23-Oct-08
Max widening	**400**	

APPENDIX 2: REQUEST FOR CLARIFICATION

In this section we raise certain points that we require clarification in order to properly apply the prescribed methodology. This list is not exhaustive and is the result of initial analysis given the aggressive timeline for review.

Credit Spread risk – Non Securitizations

- In paragraph 59 of the CSR section stipulates that for a given name, there are potentially different credit spread curves positions may be allocated to. We seek further clarification on the definition of these different credit spread curves for a given single name.

  Our understanding is that typically for a given issuer:

  a) One credit spread curve would be a "bond curve" on which would be mapped CS01 from bond positions on that issuer
  b) Another credit spread curve would be a "CDS curve" on which would be mapped CS01 from CDS positions on the issuer in question.

- On page 12, paragraph 61, the definition of S_b seems not consistent with the dimensionality. There are two possible solutions.

  a) Solution I

  $$S_b = sign \times K_b$$

  where

  $$sign = \begin{cases} +1 & if \sum_{i \in b} \sum_{n=1}^{N} AWS_{i,n} > 0 \\ -1 & if \sum_{i \in b} \sum_{n=1}^{N} AWS_{i,n} < 0 \end{cases}$$

  b) Solution II

  It is the summation of aggregated weighted sensitivities (AWS) across tenors and single names within the bucket, i.e.,

  $$S_b = \sum_{i \in b} \sum_{n=1}^{N} AWS_{i,n}$$

  where $AWS_{i,n}$ is define in paragraph 59 on page 11, i.e., the aggregated weighted sensitivity to credit spread risk at vertex i for single name n. Here, N is the number of tenor vertices.

- On page 11 of the SBA consultation, paragraph 59 refers to weighted sensitivities per name, whereas in paragraph 60 the subscript n is gone. It is unclear to us how the aggregation across names should be performed.
- In paragraph 59 of the CSR section stipulates that for a given name, there are potentially different credit spread curves positions may be allocated to. We seek further clarification on the definition of these different credit spread curves for a given single name.
- In general, the notation within formulae needs to be more precise and clear and, ideally, accompanied by illustrative examples which demonstrate their application. One instance of this lack of clarity is explained below, by way of example:

Consider a portfolio containing three curves, two of them on the same name, and suppose that the aggregation on the same curve has been already done:

Curves	Vertex 1	Vertex 2
CDS curve name 1	$WS_{1,1}$	$WS_{1,2}$
Credit spread curve name 1	$WS_{2,1}$	$WS_{2,2}$
Credit spread curve name 2	$WS_{3,1}$	$WS_{3,2}$

Then, the aggregation on the same name leads to:

Curves	Vertex 1	Vertex 2
Name 1	$ASW_{1,1}$	$ASW_{1,2}$
Name 2	$ASW_{2,1}$	$ASW_{2,2}$

where:

$$ASW_{1,1} = sign \cdot \sqrt{WS_{1,1}^2 + WS_{2,1}^2 + 2 \cdot 0.9 \cdot WS_{1,1} WS_{2,1}}$$

$$ASW_{1,2} = sign \cdot \sqrt{WS_{1,2}^2 + WS_{2,2}^2 + 2 \cdot 0.9 \cdot WS_{1,2} WS_{2,2}}$$

$$ASW_{2,1} = WS_{3,1}$$

$$ASW_{2,2} = WS_{3,2}$$

Based on page 11 of the SBA consultation, paragraph 60, given that ASW is a matrix and should be related on both name and signs of the aggregate sensitivities (and not on vertices) we suppose that the last aggregation is:

$$K = \sqrt{ASW_{1,1}^2 + ASW_{1,2}^2 + ASW_{2,1}^2 + ASW_{2,2}^2 + 2 \cdot 0.9 \cdot (ASW_{1,1}ASW_{1,2} + ASW_{2,1}ASW_{2,2}) + 2 \cdot 0.4 \cdot (ASW_{1,1}ASW_{2,1} + ASW_{1,2}ASW_{2,2})}$$

where, for simplicity, we assumed the aggregated sensitivities to have all the same sign.

Credit Spread Risk (CSR) Securitizations

- Risk sensitivities: We also regret the loss of risk sensitivities. Where in the October paper MBS and ABS where attributed shifts depending on their credit quality, there are now only two categories, investment grades and high yields. We would welcome some differentiation base on credit quality, with higher credit calling for lower shifts;
- Bucket capital requirements: In the derivation of a bucket capital requirements (paragraph 72), the correlation of aggregated weighted sensitivities is lower when underlyings are closely related than when they are differing (80% versus 100% for same sign AWS). This is obviously wrong as higher similarities should result in higher correlations.

Default risk – Non securitization

- The Jump to Default (JtD) formula on page 27 of Annex 2 implies that the measure of JtD is floored to 0. If our interpretation is correct this would be a divergence from the CP2 where the guidelines actually allowed (rightly so) the JtD measure to get negative values (please refer to formula on page 78 of CP2). Our understanding of the guidelines contained in CP2 were also confirmed by the worked examples of the new Standardized Approach kindly being provided last November;
- For strategies such as Long bond and Long CDS on the same obligor such a change is going to have material capital impact since in practice the new IDR charge will not reflect the effect of hedging. Such change deteriorates quite evidently the initial IDR proposal which received positive comments after the release of the CP2. Can you please clarify on the guidelines contained within Annex 2.

Default risk - Securitization

- Paragraph 110 indicates that default risk weights for securitization would be based on the proposed risk weights in the corresponding treatment for the Banking Book which is expected to be finalized later in 2014. However, paragraph 112 appears to be inconsistent with the proposed approach in BCBS269. BCBS269 does not include specific attachment and detachment points for determination of equity, mezzanine, or senior status of a tranche, instead, risk weights are determined through prescribed models which incorporate attachment/detachment points, or, in the case of the external ratings based approach, segment tranches based on seniority and maturity.

Reverse Repos

- Paragraph 93 of the Sensitivity Based Approach paper states that :

  "A short position in the asset sold under the repurchase agreement which should be placed into the appropriate risk bucket."

  a) We believe the intention of the Committee was to draft:
  "A short position in the asset *received* under the *reverse* repurchase agreement which should be placed into the appropriate risk bucket."

  b) If the above is correct, we disagree with the proposed treatment as any asset received under a reverse repo is not part of the receiving party's balance sheet and should not give rise to any position in the received asset.