BNP PARIBAS

BNP Paribas response to the BCBS' Consultative Paper 236 "Revisions to the Basel Securitisation Framework"

We appreciate the opportunity to offer our views on the revisions to the securitisation framework proposed by the Basel Committee and we endeavour to answer each question raised by the Committee (Part 2 of the document). We also support initiatives aiming at reducing systemic risks.

However, we would like to express our deepest concerns with the factually incorrect view that securitisation performed poorly in general as well as with the mathematical foundations and calibration of the revised methods that lead to very high multiples of the capital charges for securitisation transactions compared with the capital charges for the underlying pools.

In Part 1 of this document, we provide an overview of the results, assumptions and consequences of the revised framework.

We encourage the Committee to refer to the French Banking Federation's answer Part 1 section 2 to 4 for details on:

- Securitisation as a key tool for financing the real economy
- Historical performance of securitisation being very different across asset classes
- Securitisation in a complex regulatory environment with important and various measures already implemented during the last few years

PART 1

Summary of key findings on the proposed BCBS framework:

- Regulatory weightings of securitised assets are multiples of same assets held directly. As a result the revised framework is exaggeratedly prudent and the capital charges for the securitisation positions are not in line with the economic risk.
- Conservative structures and quality underlying assets are most heavily penalized. For high quality pools, the cap under IRBA is below the floor, which shows that the calibration of the floor should be linked to the risk of the pools.
- Security provided by credit enhancement is widely ignored.
- Economic incentives for securitisation are removed.
- Good quality assets are relatively more penalised compared to bad assets.

Revised methods fail to achieve their purpose:

- Multiple levels of regulatory add-ons lead to indiscriminate penalties affecting mostly high quality assets, and inconsistent results across asset classes.
- Risk sensitivity is materially reduced. In the majority of cases, caps and floors are reached.
- Various revised methods give widely differing results not in line with the proposed hierarchy.
- Cliff effects remain.
- Mis-calibration of RRBA affects indiscriminately banks IAA approaches, even though they benefit from full national regulators approval and regular scrutiny

Assumptions are biased:

- The revised framework seems to be based on the factually incorrect view that securitisation performed poorly in general, when poor performances simply derived from the US subprime debacle, their derivatives, and related market value instruments.
- High performances of European securitisations and underlying European assets are ignored.
- Comprehensive overhaul by European and national authorities (Commission, Parliaments and national regulators) of securitisation regulatory environment (CRD/CRA) already in place in Europe is also disregarded.
- Recent enhancement measures are ignored (alignment of interest, information disclosure, rating models).
- The entire securitisation market is assumed to be structures with aggressive tranching, arbitrage and poor-quality assets, which are not representative of the vast majority of structures in Europe, that are conservative.

Likely consequences:

- Shut down access to funding via securitisation for high quality assets as:
  a. Multifold increase in capital will prevent bank investor - ALM treasury to invest.
  b. Solvency II already prevents insurers to acquire high quality senior tranches.
  c. The absence of trading books severely restricts the access of asset managers and funds to the securitisation market.
  d. The combined effect of the above points will force an increased reliance in Europe on ECB funding for securitisation.
- The alternative to securitisation, i.e. unsecured funding or full recourse secured funding will suffer from impediments:
  a. Limited funding capacity and appetite from banks and other institutions.
  b. Lack of investors for non recourse deal will halt the deleveraging of bank balance sheet required by the FSB.
  c. Creation of systemic risk due to over-reliance on recourse secured funding (covered bonds) and increased asset encumbrance for banks.
- Banks will have to materially reduce their funding to the real economy and/or increase the cost of funding to real economy borrowers such as retail customers, SMEs, corporates in order to the cover the cost of the increased capital.
- In the absence of grandfathering on existing assets, the revised methods would result in worsening the above effects.

Conclusion: towards a non-biased Basel II arbitrage-free principles-based framework

All other things being equal, for all cases (traditional or synthetic or ABCP), **the quality of the underlying assets is the main factor that underpins the performance of securitisation. Indeed, the BCBS committee agrees with the principle that securitisation creates no additional risk and simply distributes the risk of the assets through tranching.** The key issue with the revised models is that their numerical output (unreasonable multifold increase in capital, lack of risk sensitivity) shows clearly that this principle is not respected. The principle is complied with by imposing outside the formula an overall cap and a cap on the senior tranche. The fact that these caps are necessary is in itself a proof that the revised framework is calibrated too conservatively and artificially creates additional capital on the securitisation transaction that exceeds the capital for the underlying securitised assets. It is of utmost importance that the regulatory framework correctly allocates risk through tranching for every type of underlying asset.

Classic model developments are often the result of a **rule-based modelling approach**, where rules are established first and mathematical properties are derived afterwards with the drawback that those resulting mathematical properties might violate basic principles that ought to be respected by the model, which then leads to the presence of corrective elements (e.g. risk weight caps). Such models tend to become quickly fairly complex, and require layers upon layers of adjustments and calibration to correct unsatisfactory results. Example of such rule-based modelling approaches and resulting models (SFA and MSFA) can be found in the Basel Securitisation framework which tends to disconnect itself from the initial intentions of the Basel 2 IRBA framework. The revised framework increases this disconnection, and as the old adage suggests, where there is disconnect, there is arbitrage. The objectives the framework is trying to achieve have been stated (such as being more prudent, risk sensitive, reduce cliff effects and reliance on CRAs), but not the principles the framework is trying to follow.

If the primary concern of the Basel Committee were to reconnect the Basel Securitisation framework with the Basel 2 IRBA framework, thus reducing and, depending on calibration, removing regulatory arbitrage, it would be possible to obtain a solution following a **principle based modelling approach**. By setting first the principles and the mathematical properties that a regulatory arbitrage-free model must follow, this approach leads to a natural and simple mathematical solution. This principle-based solution has the added advantage of solving several theoretical issues that current regulatory approaches have attempted to solve with various degrees of success. The principle-based solution would require the introduction of a new regulatory 'homogeneity' correlation to be set by regulators. The industry is currently working actively on a paper outlining the implementation of the Basel 2 arbitrage free approach to be made available as soon as possible.

Therefore, we urge the Basel Committee to take into consideration our proposals based on the principle that the approaches with the more detailed inputs and the more thorough analysis (models) should be prioritised, including the introduction and use of a Basel 2 arbitrage free approach[1] that correctly allocates the risk of different types of underlying assets to the securitisation tranches.

[1] The characteristics of a Basel 2 arbitrage free, external rating free approach for the determination of capital requirement of securitisation tranches of a given pool are described in the answer to the question 21.

PART 2

Question 1: *What additional costs and benefits of the two hierarchies should the Committee consider? Which hierarchy presents the greater benefits relative to its drawbacks? Which hierarchy would best address the shortcomings identified with the current framework, whilst meeting the Committee's objectives?*

We agree with the Basel Committee that the new securitisation framework should be Prudent, Risk Sensitive, mitigate mechanistic reliance on external credit ratings, and reduce Cliff Effects in order to create an arbitrage free environment where capital requirements pre and post securitisation would be aligned. We review briefly below the key findings arising from the implementation of the approaches revised in the BCBS 236 and related models on sample retail and corporate portfolios which comprise the bulk of European bank assets[2]:

- **Prudent:** in order for the framework to be prudent, the first condition is that the revised models produce results that allocate capital in line with the economic risk. However, our findings show that all revised methods produce capital charges on securitisation that are on average 3 to 4 times more than the capital requirement on the underlying pool which seem unduly prudent and heavily penalize securitisation activity. As the results of the revised approaches are not in line with the economic risk, the resulting capital charges are overridden in the revised framework with two caps: one on the RW of the senior tranche and one overall cap. However, we find that the excessive layers of conservatism embedded into the proposals create arbitrage opportunities and would encourage banks to retain junior pieces as they would not incur additional capital charges. The revised methods could also encourage banks to securitise poor quality assets. These consequences are in contradiction with the overarching goal of financial stability in the banking system.

- **Risk sensitive:** we find that all revised methods are not risk sensitive since in the majority of cases, caps or floors are reached. For high quality pools, we also have the case that the cap under IRBA is below the floor which shows that the calibration of the floor should be linked to the risk of the pools.

- **Reduce cliff effects**: apart from the RRBA approach where cliff effects are marginally reduced, we consider that cliff effects are still present in all the other methods. From a theoretical standpoint, the cliff effects are a mathematical consequence of the assumption that tranches below Kirb/Ksa should be fully deducted.

In our view, a more effective way that permits to achieve these key objectives is a principle-based approach that follows the principles of Basel II framework for the underlying assets (ie

[2] For more details, see response to the question 24

prior to securitisation).Therefore we would like to submit our proposal of a Basel 2 Arbitrage Free Approach (AFA), based on the Basel II model which is used to calculate capital requirements prior securitisation and implement it for the calculation of the capital requirement for securitisation. This approach is presented in the answer to the question 21.

1a - *What additional costs and benefits of the two hierarchies should the Committee consider?*

The complexity of the revised framework is expected to impose large implementation costs to originating banks, arising from the forced use of different approaches across countries, mandated not only by national regulator discretion, but also highly affected by the US recent ban of use of external ratings in any sector of activity: global banks will find it very difficult if at all possible to make securitisation viable under various set of capital requirements and approaches locally and at regional or global level .

Separately, it would be very important to link the pace of regulatory reforms with changes required in legal systems to overcome data distribution constraints arising out of banking secrecy and privacy laws.

1b - *Which hierarchy presents the greater benefits relative to its drawbacks?*

Both alternatives fall short of meeting the Basel Committee's stated goals and are far more conservative than Basel II rules in requiring significant more important level of capital for securitisation exposures.

Hierarchy A seems to be marginally less penalizing than Hierarchy B for funding securitisation, whilst hierarchy B seem to be marginally less penal than hierarchy A for short term receivables. However, alternative B introduces significant cliff effects in the treatment of Senior High Quality exposures (SHQ) versus non SHQ and is less risk sensitive than alternative A.

In addition, alternative B strongly penalizes securitisation as a tool to manage banks credit portfolio. Under Alternative B, risk protection transactions could be efficient only if the tranches kept by the bank are qualified as Senior High Quality, thus putting heavy constraint on the capital structure. Typically the tranches sold to investor will be thicker thus creating incentive for investors to use leverage. Moreover, the dramatic cliff effect between Senior High Quality and non Senior High Quality tranches raised uncertainties about the efficiency of the credit portfolio management during the life of the transaction, should the retained tranches be requalified at certain stage.

1c - Which hierarchy would best address the shortcomings identified with the current framework, whilst meeting the Committee's objectives?

As already stated above, both alternatives fail to meet the Committee's objectives. The table below supports this conclusion:

Alternative		Priorities			
		make capital requirements more prudent	**make capital requirements more risk sensitive**	**mitigate mechanistic reiance on external ratings**	**reduce cliff effects**
A	MSFA	does not allocate capital in line with economic risk: penalising high quality portfolio and possibly favouring low quality portfolios	No	Yes	No
	R-RBA		No	No	Marginal reduction *(cliff effect of rating agency first dollar loss methodology remains)*
	S-SFA		No	Yes	partially
B	Senior high quality tranches RRBA or MSFA/ SSFA Back stop concentration ratio Approach	does not allocate capital in line with economic risk: penalising high quality portfolio and possibly favouring low quality portfolios	No	Yes	Material cliff effect between SHQ and non-SHQ tranches due to model discontinuity

Question 2: *As regards Alternative A, could both the revised RBA and the SSFA be accommodated without raising concerns about regulatory arbitrage or level playing field?*

The two approaches are fundamentally different, which would cause level playing fields concerns if jurisdictions are allowed to choose between them.

The SSFA is a principal only approach which does not take into account certain quantitative aspects like the excess spread and the waterfall structures, or qualitative criteria like interest rate hedges, commingling management etc. These elements are a key consideration in external rating opinions which are used in RRBA for cash securitisation, by far the largest market segment. If some jurisdictions were to opt for SSFA only, one might fear that originators in those jurisdictions remove those elements and degrade structuring in order to focus only on the few parameters that help to define the capital consumption.

In RRBA, the conjunction of the two rating requirement imposes that at least one rating is based on the first dollar loss methodology which triggers downgrade from AAA (sometimes straight to CCC) where just a 1-dollar loss may affect that tranche, regardless of its thickness. Together with the mandatory use of the lower of two rating for calculating tranches RWA, the RRBA would just perpetuate the systemic capital call risk created by this digital cliff effect.

Since among the major CRAs only one (Moody's) is EL – based, the way the RRBA has been calibrated is pushing the market towards requiring Moody's ratings. This is not in line with the European Commission stated objective of increasing competition among CRAs.

Comparison of SSFA and RRBA capital requirements on the same tranche of a reference portfolio returns high differences between related capital requirements depending on the capital structure and underlying standard capital charge.

Category	CLO US post crisis		UK prime RMBS		
Senior Attachment Point	37.74%		18.22%		
Senior Tranche Rating	AAA		AAA		
Pool LGD estimate	51.0%		22.0%		
Pool PD estmate	5.7%		0.2%		
KSA estimate	11.26%		2.80%		
Pool RW (SA)	140.71%		35.00%		
CLO US post crisis	RRBA (A)	SSFA	UK RMBS	RRBA (A)	SSFA
A	58.0%	68.9%	Class-A	35.0%	**20.0%**
B1	255.5%	314.1%	Class-M	274.3%	49.6%
B2	255.5%	451.8%	N	373.4%	87.7%
C	398.1%	630.5%	B	1250.0%	628.3%
D	652.3%	848.7%	Ratio: RWA/Pool RWA	5.98	2.93
E	1250.0%	1132.7%			
F	1250.0%	1250.0%			
SUBORD	1250.0%	1250.0%			
Ratio: RWA/Pool RWA	2.22	2.49			

For instance, we find that for high quality assets with low standard capital charges and high attachment point, the SSFA Risk Weight is lower than the RRBA risk weight on senior and highly rated mezzanine tranches. On the contrary, the reverse is true for low quality pools with high standard capital charges.

Issues on level playing fields should not be about an approach versus another approach or a formula versus another formula but whether an asset in a given jurisdiction has the same treatment across jurisdictions. German SMEs should be treated the same way whether a French bank or a German bank invests in them. US subprime should be treated the same way whether invested by a US bank or a German bank. The German regulator is best placed to express the risk on German SMEs. The US regulator is best placed to express the risk on a US subprime.

Question 3: *As regards Alternative B, which methods could a bank use to conclude that a securitisation exposure is of high-quality? Would the use of these methods likely result in a capital charge consistently related to credit risk across banks and countries? Would Alternative B produce material cliff effects as exposures deteriorate below high-quality?*

3a- As regards Alternative B, which methods could a bank use to conclude that a securitisation exposure is of high-quality?

The Committee suggests that "high-quality" securitisation corresponds to a long-term credit rating of "AAA" to "AA-", or a short term credit rating of at least "A-1/P-1/F-1".

A method for objectively determining "high-quality" would be to use the link between Probability of Default ('PD') and ratings. In the technical papers of the revised framework, there is a mapping that is made explicitly between the PD of an asset and what is technically a Basel Implied Rating ('BIR'), using similar notations as the ones used by external rating agencies (AAA, AA, BBB, BB,…) over the Basel horizon (B-H) of 1 year.

When the Probability of Default of the tranche (PD_Tranche) is calculated (e.g. in the IAA/internal model or in a Basel 2 arbitrage free approach – see below), this PD_Tranche can be mapped to the Basel Implied Rating (BIR). The exposures with a Basel Implied Rating above the Basel high-quality threshold currently proposed by the Committee at 'AA-' , (or as a consequence for which PD_Tranche is lower than the PD mapped from the Basel high-quality threshold rating), would be deemed "high-quality".

In conjunction to the "high-quality" character based on Basel Implied Rating, the Basel-based definition of Seniority would be used in the determination of "Basel Senior High-Quality" (B-SHQ).

The above method does not necessarily require an external rating on the tranche from rating agencies. It only requires a regulatory mapping similar to the one found in the technical paper.

In addition, industry initiatives which will provide securitisation quality standards (such as the PCS label) could also be used to determine high-quality. In these initiatives, the individual securitisation would be subject to comprehensive review and comparison to standards by an independent party.

Other criteria to take into account for determining SHQ is to exclude structures with market value triggers and structures with illogical waterfalls.

3b- Would the use of these methods likely result in a capital charge consistently related to credit risk across banks and countries?

An external rating-free approach would provide for the same input the same output, across credit risks and countries. To remove distortion, national regulators need to determine the 'homogeneity' correlation for their national asset class and this value has to be applied to that asset class by banks regardless of the jurisdiction in which they are regulated..

3c- Would Alternative B produce material cliff effects as exposures deteriorate below high-quality?

Before answering these questions we need to define "cliff-effects from a theoretical standpoint: "cliff-effects" are mathematical discontinuities in the capital charge requirements between two consecutive infinitely grained securitisation tranchelets of a pool of infinitely grained assets.

Mathematical discontinuity occurs, either because of:

a) the use of an erroneous model, or

b) an erroneous definition, or

c) a change of model for two consecutive tranchelets along the capital structure.

Smoothing techniques to cover up mathematical discontinuities exists, and when implemented disconnect even further the model from being risk sensitive.

As a tranche is made up of a pool of consecutive tranchelets, defined by the credit enhancement (the first tranchelet of the pool of consecutive tranchelets) and the thickness (the number of tranchelets in the pool of consecutive tranchelets), a tranche will have the average characteristics of that pool of tranchelets, as all dollars in the tranche are pari-passu. As such, averages between 2 tranches will be discontinuous and are not considered cliff-effects.

In other word, within a tranche, there is no securitisation of the tranchelets.

After such clarification about the meaning of cliff effect, we would like to mention that the cliff effect is the result of a Basel framework that requires a deduction of the capital amount below Kirb (including EL). Unfortunately, in our view it is the result of having incorrectly modeled the pool correlation Pool-rho as being equal to the systemic correlation B-Sys-rho. The cliff effect is the logical consequence of this error, and once this is corrected, the cliff effect disappears.

The cliff-effect is said to be a regulatory override and has many similarities with the sovereign ceiling override on the most senior tranches of a securitisation by the rating agencies: by being overrides, those rules stop from risk-sensitive. As a consequence, they will lead to discrepancies and arbitrage.

In Alternative B, there will be a discontinuity and therefore a cliff effect when an exposure deteriorates below high-quality because in addition to the above, the different approaches have not been calibrated to have the same outcome in all situations at the point of high-quality discontinuity (i.e. the AA- rating threshold in the current Committee proposal). The inputs of the different approaches are not the same, hence it is not possible to ensure a consistent result at that point of discontinuity. Additionally, the cliff effect due to the use of different approaches cannot be remedied by calibration if the determination of "high-quality" is also based on non-quantitative criteria.

More fundamentally, we question the fact that if an senior exposure is deemed of "high-quality" and follows a more sophisticated approach, there should be an obligation to change on the same exposure for the BCRA which is a less sophisticated approach if or when the asset deteriorates below high quality.

Question 4: *Are there alternative hierarchies or revisions to the two proposed (or a combination of both) that the Committee should consider?*

The hierarchies should be based on the principle that subject to regulatory approval, the approaches with the more detailed inputs and the more thorough analysis should be chosen before other approaches with fewer inputs or less detailed analysis. This also depends on the ability or willingness (due to cost/benefit ratio) of the bank to have access to the data and analytics. Based on this principle, we propose a hierarchy that starts on top with the "best informed" approach and with an alignment of capital with a pre-securitisation situation, and ranks the approaches according to the level of detail of inputs and of the analysis.

In addition, there is a difference between jurisdictions which favour the use of Mark-to-Market principles in the banking book, and jurisdictions for which there is no Mark-to-Market impact on the banking book. In the former case, the securitisation is performed with an originate-to-distribute to market objective, and Mark-to-Market is key in this environment. In other jurisdictions, the transactions are performed mainly for funding with a hold-to-maturity philosophy. Moreover, the regulators have different approaches to the resolution of banks default, some usually searching for liquidation at market price (hence emphasis to Mark-to-Market), whilst others prefer solutions with work-out on the assets (therefore non need for Mark-to-Market).

Therefore, taken into account the level of information embedded into each model/approach and from a theoretical standpoint, the hierarchy would be the following (at the top those having the most information, at the bottom, those having less).

For banking book mark to market inclined jurisdiction	For banking book non mark to market inclined jurisdiction
Internal Model / IAA	Internal Model / IAA
Basel 2 Arbitrage Free Approach with Explicit Mark-to-market add-ons	Basel 2 Arbitrage Free Approach
(MSFA)*	(SFA)*
(SSFA calibrated on MSFA with p>0.5)*	(SSFA with p=0.5)*
(RRBA)	RBA with senior and thickness sensitivity calibrated on IRBA
BCRA	BCRA
Deduction	Deduction

* we have put in brackets methods for which we consider that the mathematical foundations and calibration are questionable.

IAA/ Internal Models: As indicated in the Consultative Document, the **IAA** will continue to be used for ABCP. The use of the IAA has many benefits with certain market participants for the ABCP, as a model based on more comprehensive and qualitative analysis of both underlying assets and capital structure can be included in the analysis. (See also the specific discussion on ABCP in annex 2).

Potentially, internal approaches could be extended to a scope beyond ABCP conduits if internal risk models can be developed encompassing the comprehensive analysis of the idiosyncratic risk of the underlying asset pool and the specific structure of the transaction. It would also satisfy the Committee's objective to reduce reliance on external rating, and these internal approaches would require specific and explicit approval from the local regulator after back-testing review. As the Internal Models/IAA are the approaches with the more comprehensive analysis and the larger use of parameter, they should be put at the top of the hierarchy in our view.

The key advantage of the IAA is that banks would have to develop detailed internal rating policies for securitisation exposures, effectively doing an internal analysis similar to the external credit rating agencies approaches: (a) sound analysis of the underlying assets backing the securitisation exposure, (b) detailed modelling of the cash-flow waterfall structure of the cash securitisation vehicle, and (c) detailed analysis of legal and credit surroundings of the transaction, quality of the various counterparties (account banks, servicers, custodians…). In light of a move towards less reliance on CRAs, IAA would therefore naturally replace the RBA currently at the top of the Basel II framework.

CRD2 defined “Credit Quality Steps” which could thereby allow a mapping between the IAA internal rating and the risk weight without reliance on external ratings.

Basel 2 Arbitrage Free Approach:

We also recommend that the Committee consider a Basel 2 arbitrage-free approach, i.e. an approach based on the credit theory and principles of the Basel 2 IRB framework and ensuring the consistency of capital requirements for the pool of assets within or outside of a securitisation. In order to avoid regulatory arbitrage, the approach should follow a set of principles which underpins the Basel 2 framework, including conservation pre- & post-securitisation of capital requirements, expected loss, without changing the theoretical framework, model-risk charge conservation and mathematical continuity on calculation of risk-weighted assets. The Basel 2 arbitrage-free approach should be simple and comprehensive. It should comply with the above mentioned principles. It should be driven by the same theory of calculation of capital requirements for credit risk as the current Basel 2 IRB framework (Vasicek mathematical developments compatible with the Basel ASRF model) which is classical and implemented worldwide. Regulators would control the settings and calibration of the only additional parameter required by such approach to capture the "homogeneity correlation".

On that basis, the approach should be easily implementable by IRB banks, since it would require the same analysis and the same inputs as the IRB approach for the asset pool prior to securitisation. It should provide a solution to the issues faced in the current securitisation framework: material reduction of cliff effects, management of mixed pools, removal of yield arbitrage, improved consideration of discounted assets, reduction of reliance to external credit rating agencies, no need for complex calibration and unnecessary caps, prudent and consistent allocation of capital according to the unexpected risk of the tranches, including high quality senior tranches.

Further details on the set of principles underpinning the Basel 2 arbitrage free approach are provided in our answer to question 21.

The industry is currently working actively on a paper outlining the implementation of the Basel 2 arbitrage free approach to be made available as soon as possible.

For the sake of completeness, we left the SSFA and MSFA models in the hierarchy tables. Nevertheless, we have found several assumptions and calibration questionable from a mathematical point of view. Our comment on this issue might be forthcoming after having been subjected to a peer review.

APPROACHES	Reducing mechanistic dependency on external rating	Absence of cliff effect	Asset sensitive	Pool sensitive	Granularity sensitive	Qualitative (securitisation) structural input	Input type
IAA	**Yes** (mechanistic mapping to credit quality steps)	**no** indirect cliff effects via mapping to RRBA	**yes**	**yes**	**yes**	**yes**	methodology of rating agency & extensive information required on asset and structure
Basel 2 Arbitrage Free, rating free Approach	**yes**	**yes**	**yes**	**yes**	**yes**	**no**	Basel 2 pre securitisation data and Basel 2 irba (vasicek) framework model **only**
MFSA	**yes**	**no**	**yes**	**no** (deduction below Kirb)	**yes**, but not consolidated at obligor level	**no**	basel 2 pre securitisation data and multiple layers of models and additional non Basel 2 asset assumptions
SSFA	**yes**	**no**	**no**	**no**	**no**	**no**	simplified
RRBA	**no**	**no**	indirect	indirect	indirect via external Ratings	yes via external ratings	basic tranche specs
BCRA	**yes**	**no**	**no**	**no**	**no**	**no**	detachment point only

The goal of the Committee to progressively remove the use of rating agencies should in our view be fulfilled by a methodology that, in the case of cash securitisation, not only gives consideration to the underlying assets, but also to the very structure of the transaction and to its surroundings. This could be fulfilled by the use of the IAA irrespective to whether the securitisation exposure is held within an ABCP conduit or on the bank's balance-sheet. The key advantage of the IAA is that banks would have to develop detailed internal rating policies for securitisation, effectively doing a similar work to the one currently done by rating agencies.

IAA models can be complex, should the Committee decide that a simpler approach is warranted, we would recommend the use of the Basel 2 Arbitrage Free Approach.

***Question 5**: The Committee recognizes that in some instances and in some jurisdictions, the requirement for two external ratings could be difficult to implement or could impose additional costs on banks. The Committee requests feedback on the relative merits of reducing idiosyncratic, rating agencies' modeling risk with the costs of using two ratings and/or whether exceptions to this treatment should be permitted.*

The requirement for two external ratings is not consistent with a key objective of the new framework calling for less mechanistic reliance on rating agencies, nor could it be reconciled with the legal requirement in some jurisdictions to forbid any reference to external ratings.

The two-rating requirement does not reduce idiosyncratic risk or only reduces the appearance of it. Effectively, external ratings express risks assessment according to different methodologies (S&P vs Moody's and others) which are not necessarily clearly correlated to real economy. Separately, external ratings are also factoring qualitative elements differently weighted by Rating Agencies. Further, the new regulatory framework has made the interaction with external ratings even less transparent and unforeseeable in relation with economic environment and reality.

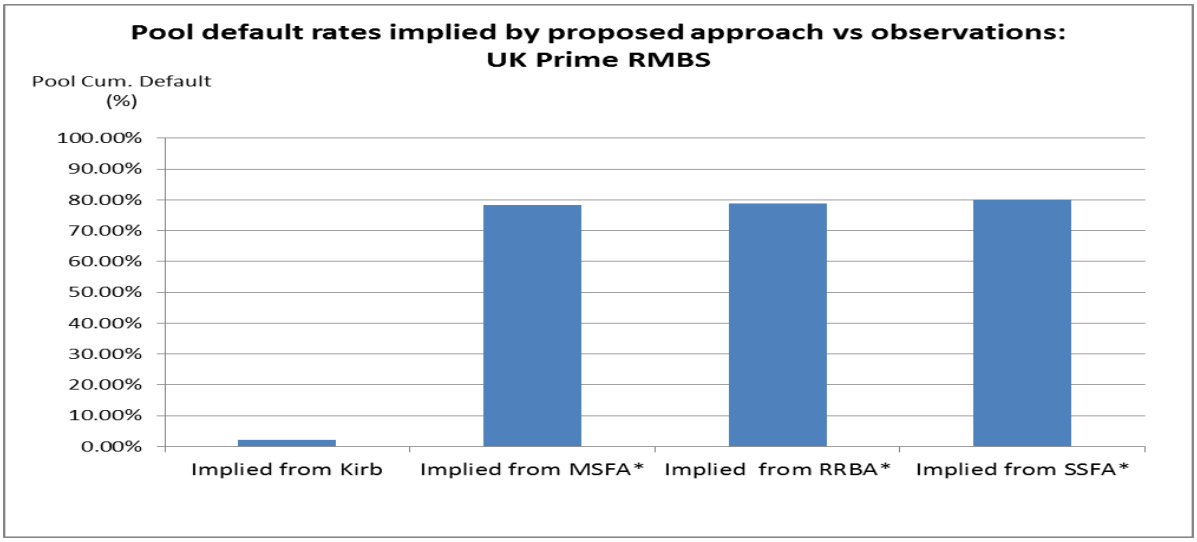
Overall, the additional costs caused by the requirements for two external ratings are not balanced by benefits when considering cost at large including Money, Time, Volatilty of different approaches you have to reconcile with economic environment or between rating agencies. In some cases, having 2 external ratings will be in itself difficult to achieve: as a function of the nature of the assets/country, rating agencies may not have a methodology to rate a securitisation transaction. Finally, the request seems disconnected from investors' expectations which are focusing more on detailed information related to underlying assets.

Question 6: *Is the RBA appropriately calibrated and formulated? Should other risk drivers be incorporated?*

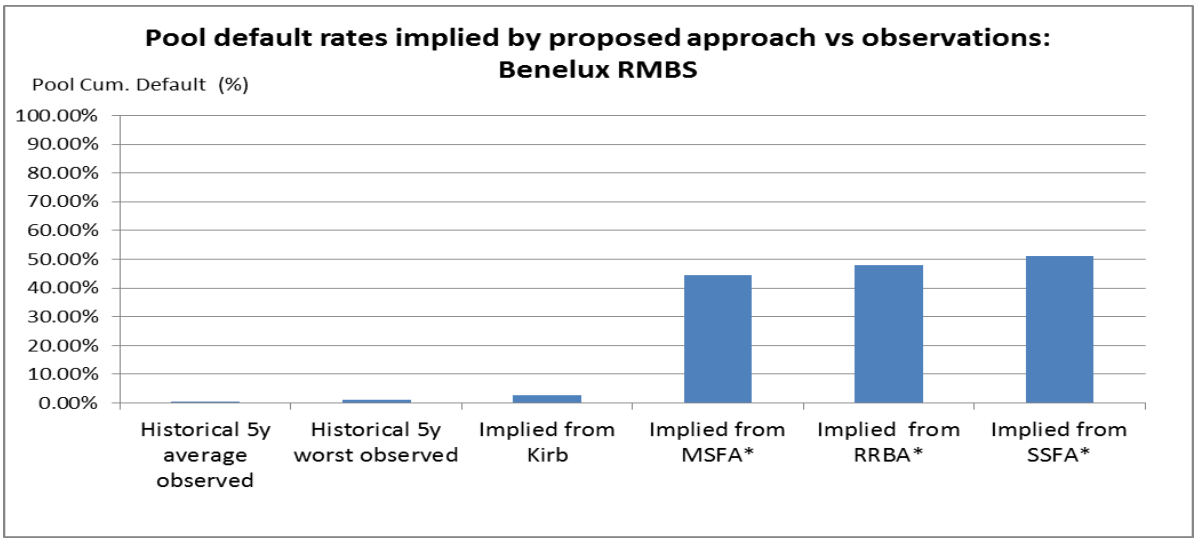
The RRBA calibration does not allocate capital in line with the economic risk. This is evidenced by the fact that the resulting sum of capital requirements on the tranches is a multiple of the capital requirement of the pool. This is particularly evident for high quality pools such prime UK or Benelux mortgages or French auto ABS.

For instance, for Arran, a prime UK RMBS, the ratio of the RWA of all the tranches to the RWA of the pool is 5.98 times after taking into account the RW cap on the senior tranche.

The pool default rate implied by the proposed RRBA (i.e. required on the pool to obtain a loss on the tranche equal to the proposed RRBA capital, including the loss of all tranches below) would be about 80%. Even as an unexpected default, this is unrealistic. It is about 37 times higher than the pool default rate implied by the KIRB (i.e. obtained in a scenario where the pool loss would equal KIRB).



For a Benelux RMBS example, the implied default rate on the pool would be 18.5 times higher than the pool default rate implied by KIRB.



*Pool default implied by having senior tranche loss equal to proposed capital – cap and floor reached

This is because the RRBA was not calibrated on a broad range of existing transactions, but on the MSFA and the underlying MSFA model is not arbitrage free, i.e. does not respect the rule that the capital requirement on the pool has to equal the sum of capital requirement on the tranches.

This asymmetry is particularly acute for retail pools because the maturity is a factor in the capital requirements of the tranches but not in the capital requirement of the pool.

Based on a sample analysis of 10 transactions (see answer to question 24), we find that the RRBA does not meet the stated objective to approximate the MSFA.

Moreover, the RRBA was calibrated based on a single portfolio of single B corporates with PD of 4.729% and LGD of 60% that is not representative of most transactions in the market.

Securitisation of corporate loans, i.e. Corporate Loans Obligations (CLOS, aka "Corporate CDOs") is not only an asset class which is far from being representative of the securitisation market especially in Europe, it has also been an asset class where rating agencies methodologies have significantly changed. Therefore the calibration of the RRBA would be more representative if it was performed on other asset classes such as the European RMBS. For instance prime UK or Benelux RMBS, representing 2/3rd of the European ABS market, typically have pool PD below 1% and LGD below 25%. For such asset classes, the RRBA method consistently overestimates the MSFA before cap and the actual risk on the collateral pool.

For high quality pools such as prime UK/Benelux RMBS, the RRBA senior 58% 5y RW is not applied as it is above the cap of the pool RW. This systematic application of the cap renders the RRBA not risk sensitive for the majority of transactions in the European market.

Rating agencies base their external ratings on a thorough analysis of various aspects the transaction, including, but not limited to, capital structure, credit enhancement mechanisms, excess spread, legal considerations, and other more qualitative criteria which are not considered in the MSFA. Therefore it does not seem appropriate to calibrate the rating based approach to the MSFA applied to CLOs. Especially, as the Basel Committee has noted, the rating agencies have made fundamental changes to their methodologies after crisis.

As noted by the Committee, the rating agencies take into account the tranche maturity when assigning a rating. Therefore the additional maturity adjustment in the proposed revised rating based approach appears to be double-counting the maturity impact in the approach.

Rating agencies have qualitative overrides different from the regulatory overrides, and the one that has created the most damage to European mortgages is the sovereign ceiling override. For example securitisation of Portuguese mortgages or Spanish mortgages cannot reach the AAA rating, regardless of how high the attachment point is.

This override lowers artificially the quantitative calculation of risk. There is an information asymmetry that leads to discrepancy (or plain error). In the Basel framework, the underlying risk weight of an asset is supposed to represent the risk of the asset in itself, not the risk of the country. Not so with the rating agencies methodologies. A US subprime transaction can still reach AAA, whereas a Portuguese good quality prime RMBS cannot reach even AA- due to this sovereign ceiling override.

If the measure of the risk is inconsistent between the regulatory framework and the rating agencies methodologies, the output is inconsistent.

To improve the RRBA calibration we recommend:

- To use an arbitrage free approach as we propose in answer to question 21
- To approximate this arbitrage free approach by having different risk weight tables depending on each combination of PD/LGD/correlation of underlying pools.
- To calibrate using multiple representative asset classes and not only CLOs

In addition, even with an improved calibration, the RRBA does not meet the objective to reduce reliance on external ratings.

Question 7: *Is it appropriate to require that in order for the MSFA to be used the IRB approach should be applied for all underlying assets?*

Notwithstanding our reserves on the mathematical foundation of the MSFA, our comments below concern only the input to the formula.

The use of the MSFA is already subject to the following constraints:

- For non self-originated assets: approval by the regulator and by the bank's risk division is required to apply IRB approach on such assets. One prerequisite for a potential approval is that reliable PD and LGD are available. On that last point, it is worth noting that the loan by loan data warehouse initiative makes PD and LGD industry data available on corporate loans.

- For self-originated assets : the use of the MSFA is subject to the regulator's approval

The requirement to have data on all underlying assets would prevent MSFA application in many cases where a bank could calculate K_{IRB} for most but not all underlying exposures. It should be available where the bank can apply IRB to the "predominant" share (as under Basel II) or where it can apply IRB to some larger share short of each and every underlying exposure. Where there are immaterial gaps in the data, the framework should permit a bank to use proxy data in a conservative way.

More broadly, as the MSFA is in a sense the centre-piece of the Proposals, and drives the calibration of the SSFA and the RRBA, it is important that it be made more practically applicable by more institutions in different roles and across a wide range of assets.

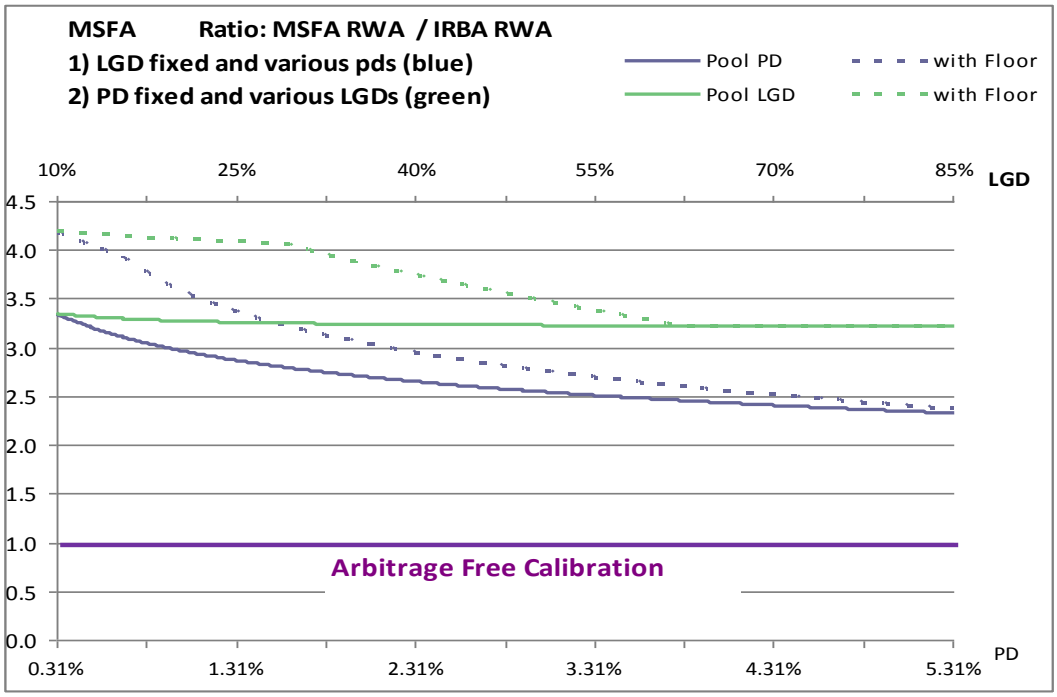
In relation to operational requirements for the MSFA, we recommend to allow sophisticated market participants to make use of portfolio-level estimates of PD, LGD and term to calculate the KIRB, and therefore also use of the MSFA to calculate the regulatory capital for securitisation exposures, as described above and in Annex 5.

We are particularly concerned that the proposed hierarchies rely heavily on banks' ability to calculate IRB capital charges or IRB estimates of PD and LGD. In the EEA, unlike the US, use of the SFA requires supervisory approval which is typically limited to particular asset classes and according to specific countries. In addition, while loan-level data is now being made available for some asset classes, there are limitations on the amount and quality of historical loan-level data that is publicly available. Furthermore, to the extent originator-specific underwriting criteria are needed for internal models, banks may simply not be able to calculate IRB estimates on loans that they have not originated even when they do have access to historical data. The combination of these limitations may render the MSFA and CR_{KIRB} approach unusable for the vast majority of bank securitisation exposures in Europe. We propose that the Committee provide details on the requirements it sees as reasonable for banks to use the MSFA and CR_{KIRB}, and also study the results of QIS to identify how often banks will be able to apply these approaches. Some flexibility should be allowed in the determination of the parameters, subject to approval by the national regulators.

Question 8: *Is the MSFA appropriately calibrated and formulated? Does it incorporate the appropriate risk drivers? Is the calibration of tau and omega appropriate? If not, what evidence can respondents provide to support an alternative calibration?*

The key issue is not one of calibration but of methodology as the model behind the MSFA is flawed[3]. This is because the MSFA model does not respect the Basel 2 arbitrage free principle that the capital requirement of the pool is equal to the sum of capital requirements on the tranche. In other words, the model is arbitrage free if is the ratio of the sum of RWA on the tranches to the RWA of the pool is equal to 1 unless there are specific adjustments for Basel II assumptions that are not complied with (for instance, securitisation with replenishment periods that change the maturity of the collateral). For the MSFA this is not the case as the ratio, on average around 3 to 4 times based on our sample of transactions. For instance, we show in graph below that for of prime UK RMBS, the ratio is in a 2.5 to 4 times range depending on PD/LGD.

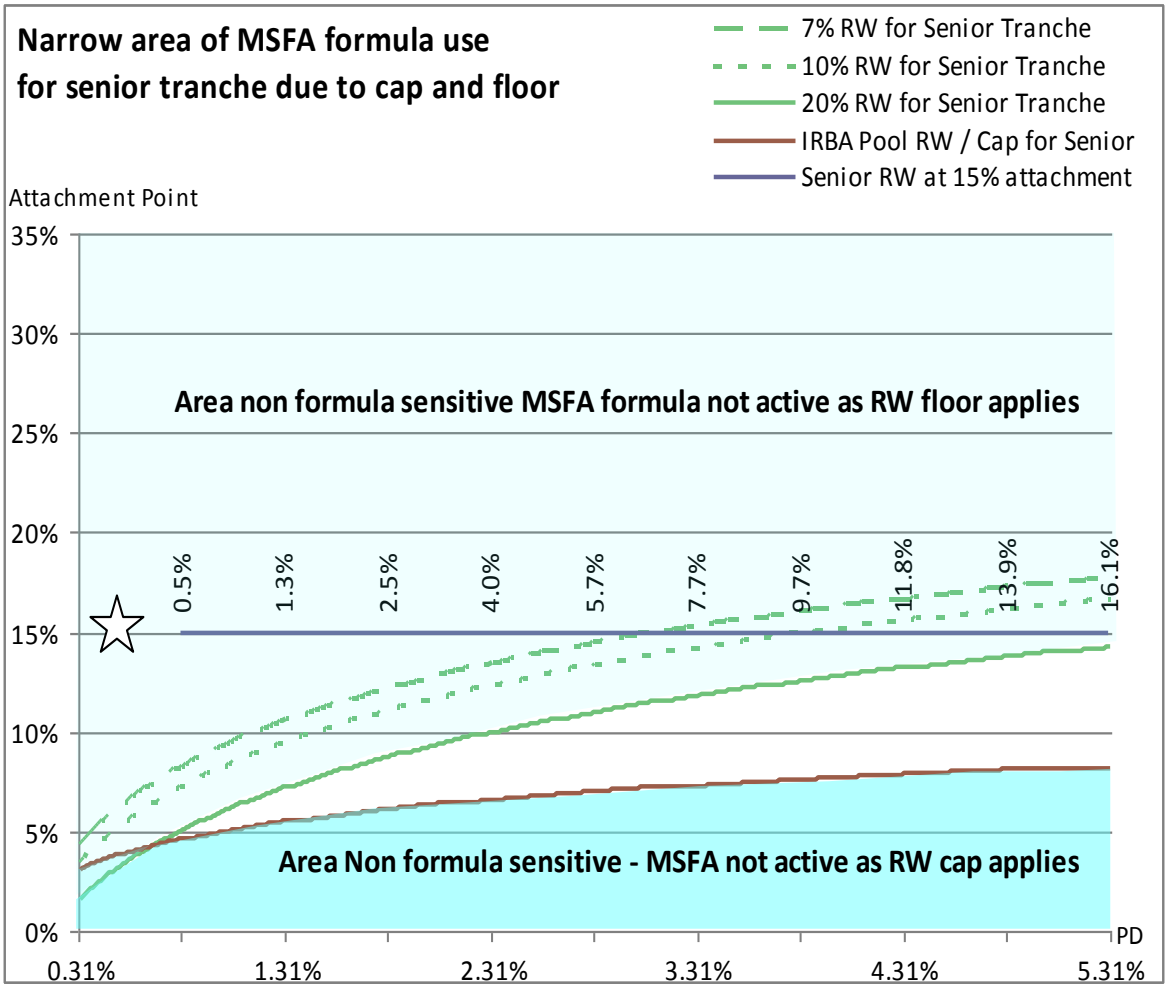
Mortgage Portfolio, (PD 0.4%, LGD 20%, tranche maturity 5y)



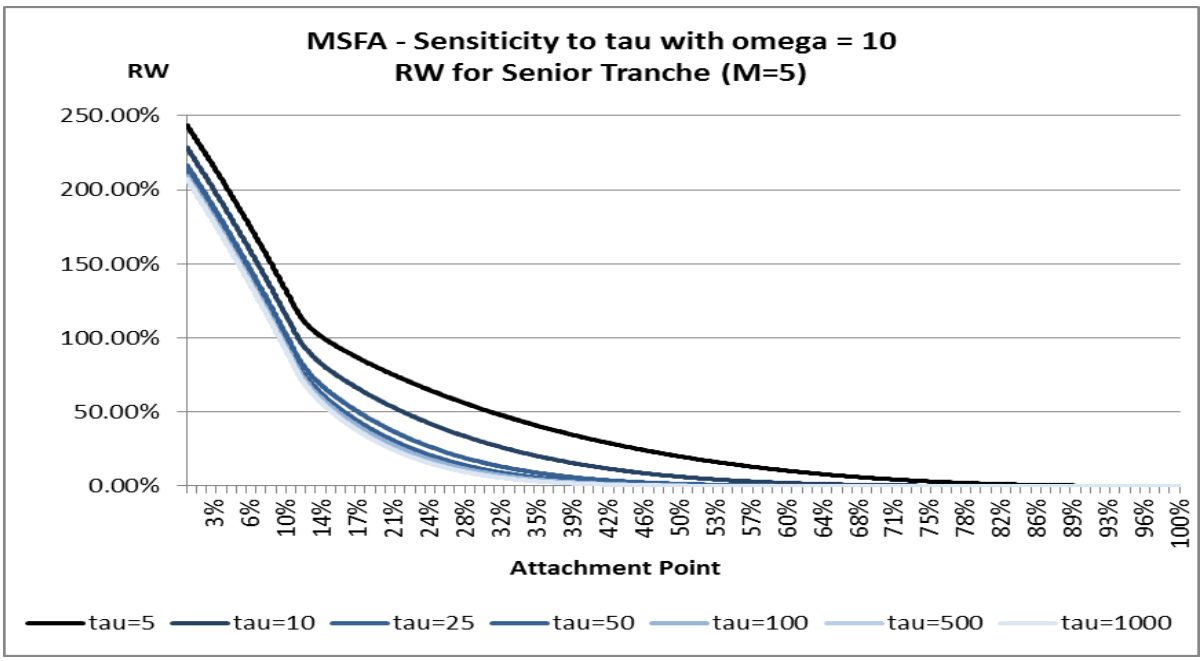
[3] The foundation of the SFA/MSFA is based on the assumption that at 99.9% the capital contribution of the pool is given by the first loss representing that amount of capital (including EL). This can only be the case when a pool is not homogeneous but as diversified as the bank. This is clearly not the case for securitisation. Many incorrect mathematical properties derive from this flawed assumption.

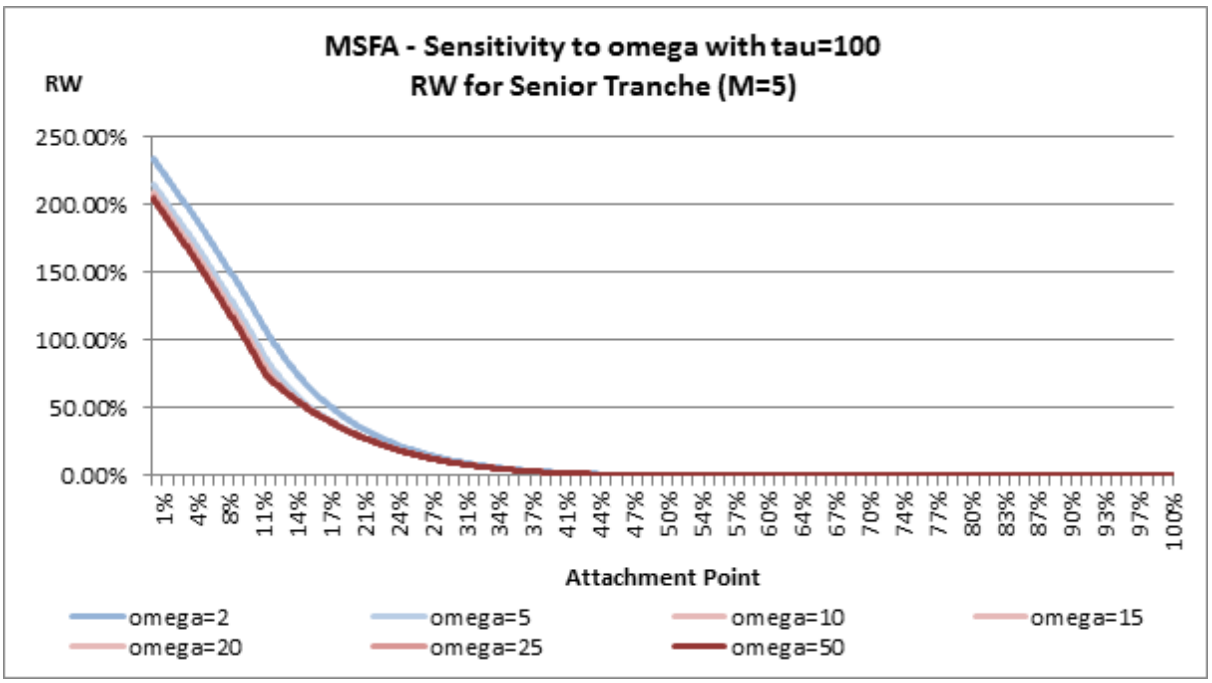
The application of the MSFA formula is very limited due the floor and cap being very close. As a result, the MSFA is not risk sensitive since it has a narrow risk envelope. This is shown graphically for the case of a prime UK RMBS. As prime RMBS typically attach at 15% with PD below 0.5%, the floor will always be reached for prime RMBS in the MSFA model.

Mortgage Portfolio (PD 0.4%, LGD 20%, tranche maturity 5 years)



Independent parameters tau and omega have little impact on the MSFA. The MSFA is sensitive to tau and omega when the parameters are at extremely low levels (tau below 50 and omega below 5) but not when tau and omega are increased above these levels (see graphs). As a result, there is no obvious way to calibrate the MSFA model to make it arbitrage free. We therefore recommend replacing the MSFA model with one that is arbitrage free as proposed in answer to question 21.





We have looked at the impact of the maturity on the MSFA. For this analysis, we have used and SME transaction with the following assumptions:

Pool LGD	35%
Pool PD	2.50%
Pool RWA (IRBA)	65%
Pool EL	0.88%
Pool UL	5.22%
KIRB (EL & UL)	6.09%

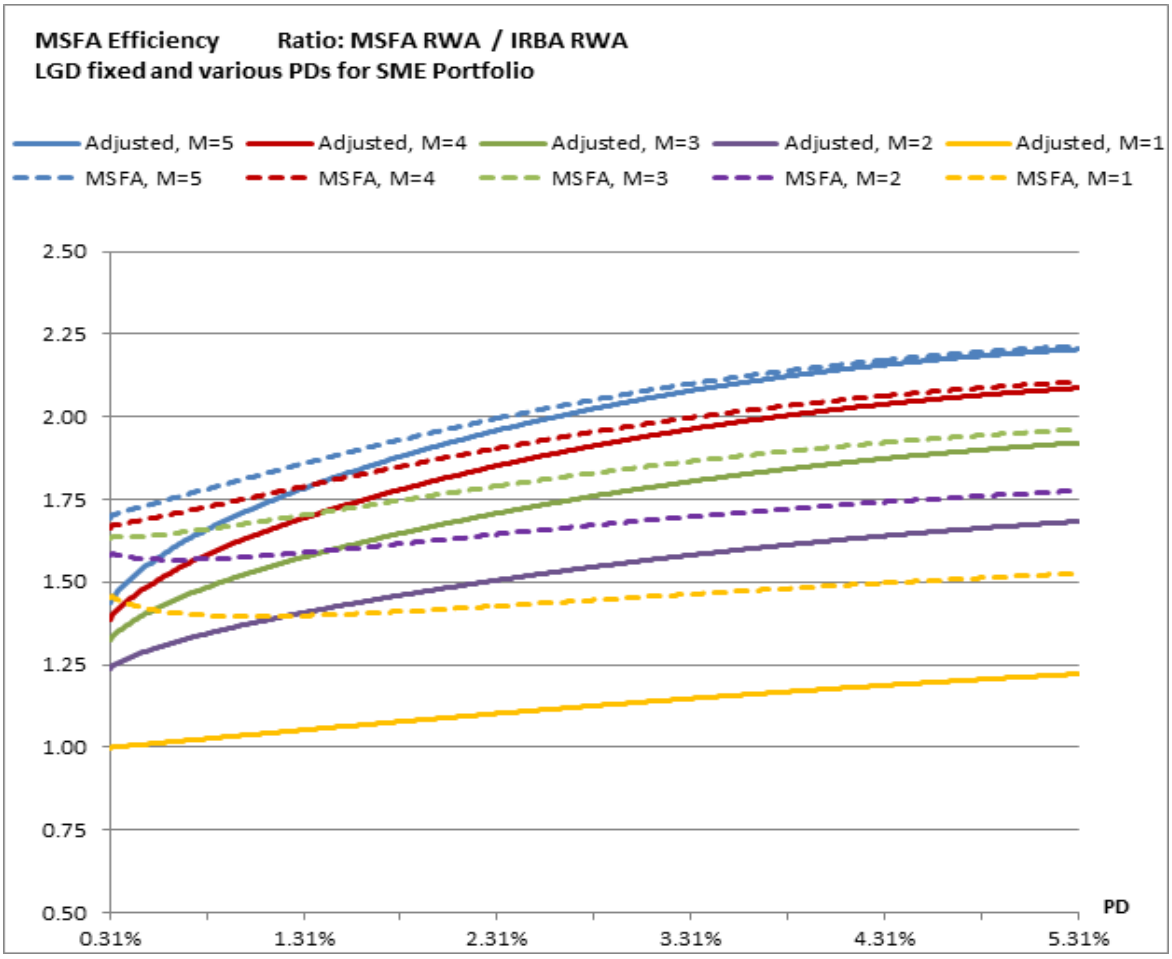
We have compared the MSFA with an MSFA adjusted without the “add-ons”, i.e. the MSFA without the deduction below Kirb and with infinite values for tau and omega.

We find that at the 1 year maturity, the adjusted MSFA is close to an arbitrage free calibration as the ratio of RWA of the tranches to the RWA of the pool is close to 1. However, with the deduction below Kirb and the tau and omega set at the values proposed by the Committee, the calibration is closer to 1.5 at the 1 year maturity. For maturities of 4 or 5 years, this difference between the MSFA and the adjusted MSFA becomes negligible. Therefore, for maturities of 4 and 5 years in particular, the main reason for the high ratio of RWA after and before securitisation is the way the maturity is taken into account, through a marked to market approach, in the MSFA formula. This raises a number of issues:

1. The marked to market approach, as discussed in the answer to question 4, is not relevant for jurisdictions where securitisations have an primary objective of funding with an hold to maturity philosophy. Therefore, the proposed MSFA calibration is only designed for jurisdictions that follow a marked to market approach.

2. Is it appropriate that the MSFA be dependent on maturity since there is already a maturity adjustment in the Kirb (for corporate portfolios)? Is this not a double counting?

3. The maturity of the tranches is not necessarily relevant for portfolio with short-term maturities and frequent replenishment for which the credit migration is constrained by the short tenor of the assets.



For ABCP and purchased receivables transactions, in most of the cases, we end up at the cap at KIRB, which doesn't reflect an appropriate calibration of the formula.

In the revised framework, for credit risk management transaction, risk weights resulting from the use of the MSFA as it is currently calibrated could be multiples of the risk weights of the underlying portfolio (even on self-originated asset and for synthetic transaction). Therefore, securitisation will no more be an efficient tool for banks to buy risk protection.

Despite the excessive conservatism of the current SFA especially when looking at clean risk transfer structures with simple waterfalls, there is a rationale for banks to enter synthetic securitisation transactions to mitigate the credit risk of the bank's portfolio, which is reflected in a reduction of their RWAs. The new floor level proposed by the BCBS's consultative paper would make the RWA reduction nil for virtually all asset classes and act as a deterrent to take risk mitigation actions considering the costs of such transactions (such costs being the ones associated with the implementation of a complex infrastructure to manage these transactions - database, data feeds, calculator, control processes – as well the yield offered to third-party investors). In the current environment, we should note that the risk transfer generates no systemic risk as the positions are sold outside the banking system to investors who provide term funding and set aside high capital amounts for such positions.

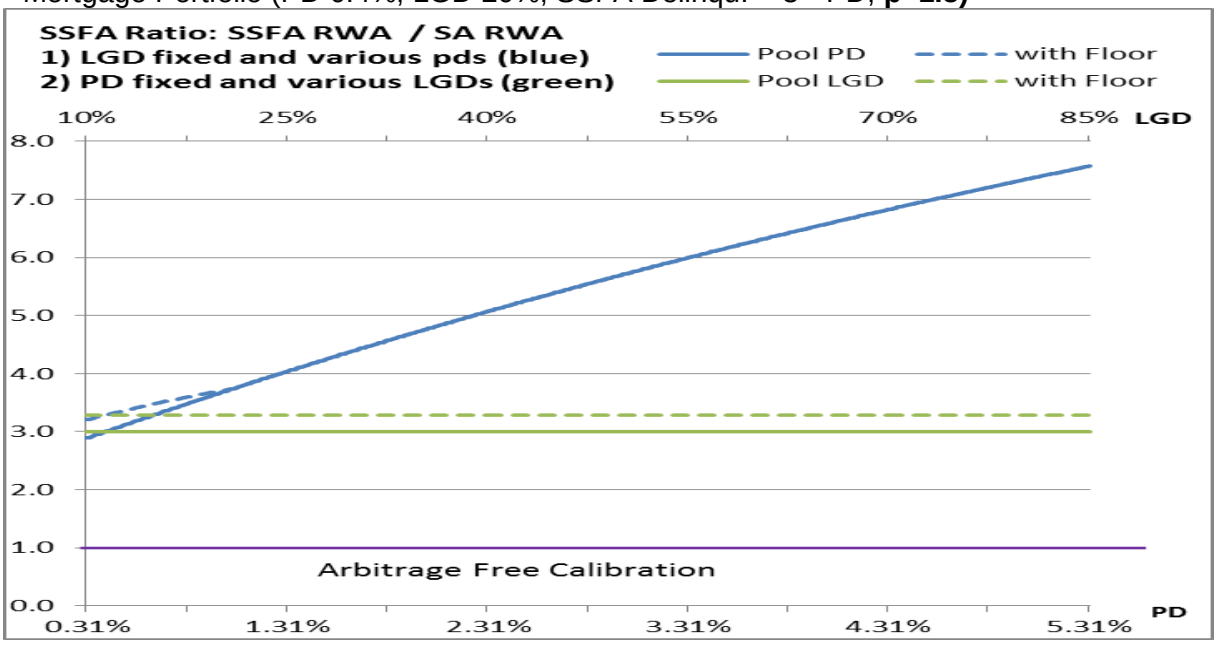
Question 9: *Is it prudent to allow the use of the MSFA by banks making use of the foundation IRB approach (ie not calculating internal estimates of the underlying loans' LGD)?*

On the basis that the IRBF is a transition state towards the IRBA approach, it would be possible for the Basel committee to allow the use of MSFA to IRBF banks. In turn, this might allow the Basel Committee to provide some flexibility to IRBA banks and allow the MSFA even when the IRB approach is not used for all assets (subject to materiality thresholds).

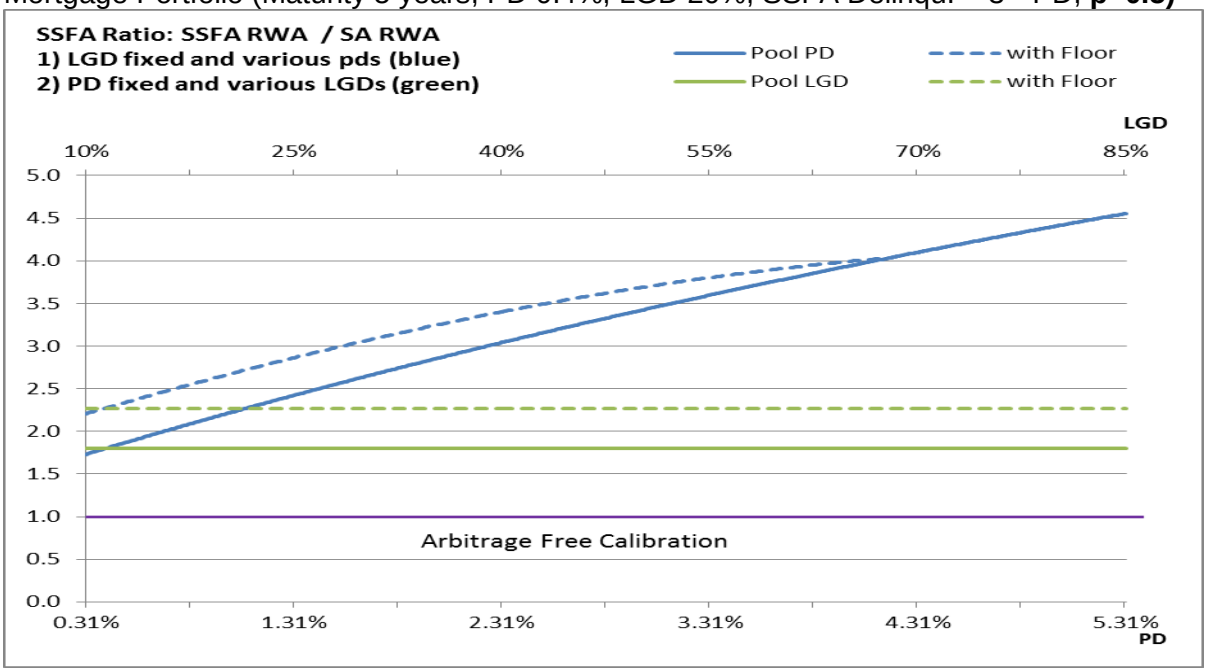
Question 10: *Is the SSFA (particularly the constant term p) appropriately calibrated? Please provide justification and evidence, to the extent possible, for alternative appropriate levels of calibration?*

The key issue is not one of calibration but of methodology as the model behind the SSFA is questionable in particular due to the capital deduction below Ksa. This is because the SSFA model does not respect the arbitrage free principle that the capital requirement of the pool should be equal to the sum of capital requirements on the tranche. In other words, when the model is Basel 2 arbitrage free, the ratio of the sum of RWA on the tranches to the RWA of the pool is equal to 1 unless there are specific adjustments for Basel II assumptions that are not complied with (for instance, securitisation with replenishment periods that change the maturity of the collateral). This is shown graphically by the ratio of RWA post securitisation to the RWA of the pool for the case of prime UK RMBS.

Mortgage Portfolio (PD 0.4%, LGD 20%, SSFA Delinqu. = 3 * PD, **p=1.5)**



Mortgage Portfolio (Maturity 5 years, PD 0.4%, LGD 20%, SSFA Delinqu. = 3 * PD, **p=0.5)**



Even using a lower p of 0.5 would not result in an arbitrage free calibration since the ratio would be around 1.8 for the starting PD of 0.31%.

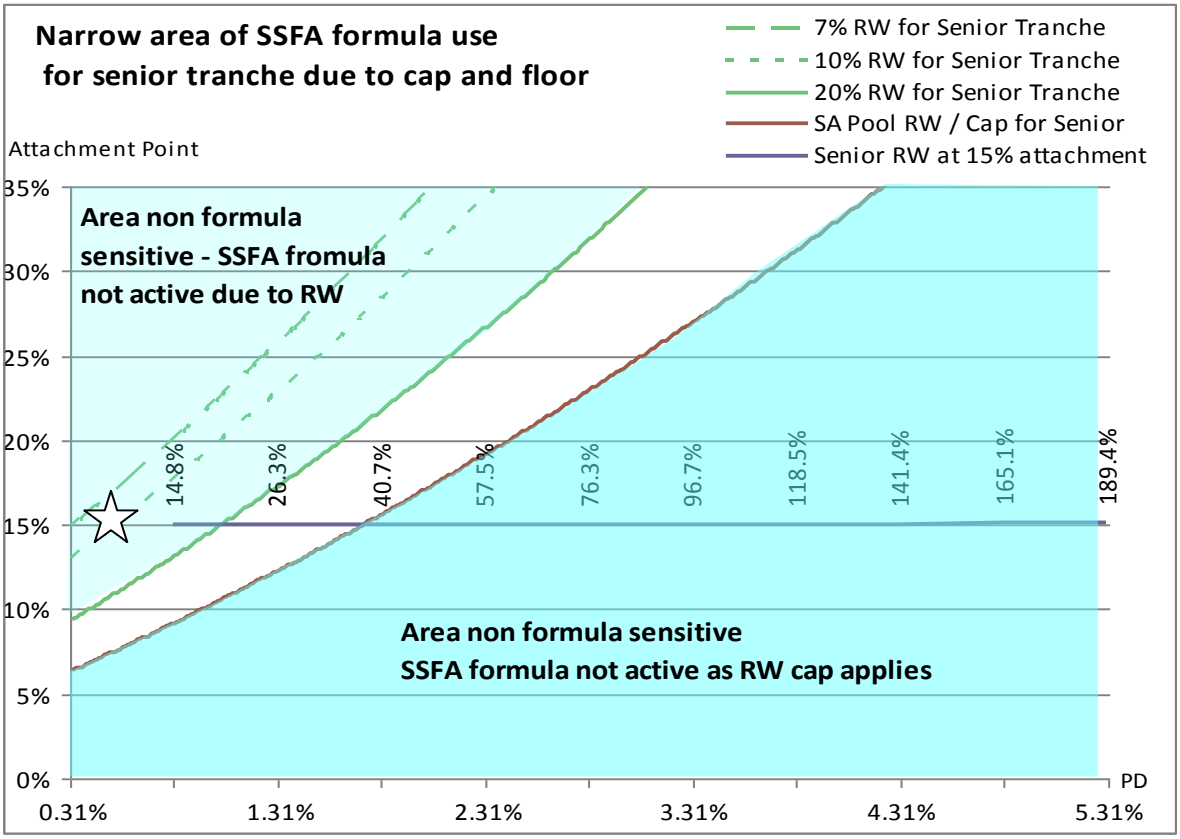
However even if it is clear that the SSFA should generate higher capital requirements than the MSFA, we do not understand why the SSFA proposed for Europe should be more conservative than the formula introduced in the United States as explained in the consultative document: “the Committee is proposing to calibrate the SSFA more conservatively than the SSFA introduced in the United States, by setting p equal to 1.5”. When comparing losses (for SF bonds issued between 2000 and 2011) on structured finance transactions at a global level, it looks clearly that SF deals are riskier in US than in Europe.

Question 11: *Is the SSFA properly formulated or should other risk drivers, such as maturity, be incorporated?*

The SSFA formula is the only formula that recognizes that the senior risk-weight needs to be sensitive to the underlying quality of the assets. This is done by including the RW of the pool inside the exponential term of the formula. The implicit assumption is that high RW are associated to low quality assets and fat tails and low RW are associated to high quality assets and thin tails. This is a positive development which unfortunately has been overridden by the floor and the formula itself is flawed because of the deduction of capital (resulting from the original SFA theory).

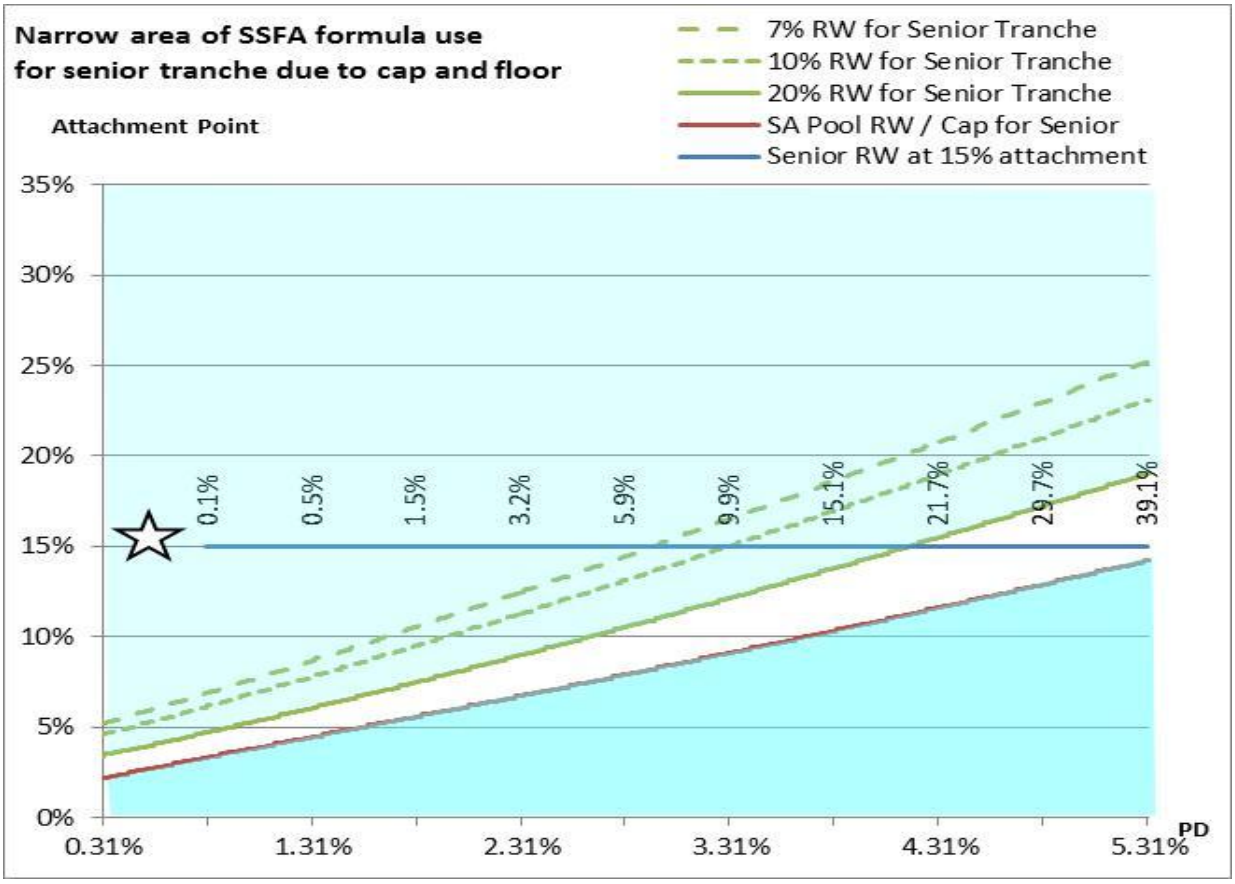
The application of the SSFA formula is very limited due the floor and cap being very close. As a result, the SSFA is not risk sensitive and has a narrow risk envelope. This is shown graphically for the case of a prime UK RMBS. As the senior tranches of prime RMBS typically attach around 15% with PD below 0.5%, the floor will be reached for prime RMBS in the SSFA model. We can see however, that with a lower floor, the risk sensitivity area will increase significantly. For instance with the floor of 7%, the SSFA would apply for prime UK RMBS.

Mortgage portfolio (5 years, PD 0.4%, LGD 20%, SSFA Delinqu. = 3 * PD, **p=1.5)**



By using a calibration of P=0.5, the issue of the narrow risk envelope and lack of risk sensitivity remains.

Mortgage Portfolio (Maturity 5 years, PD 0.4%, LGD 20%, SSFA Delinqu. = 3 * PD, **p=0.5)**



Adding maturity as a risk driver would not remedy the key issues being that the SSFA is not arbitrage free and is not risk sensitive due to floors and caps. Besides, maturity is already taken into account in the attachment point.

For ABCP and purchased receivables transactions, in most of the case we end up at the cap at KIRB, which doesn't reflect an appropriate calibration of the formula.

Question 12: *Has the BCRA been appropriately calibrated and formulated?*

The proposed BCRA formula does not recognize any credit enhancement which will create capital charges that are not in line with the economic risk. For instance, a senior tranche that would attach either at 5% or 95% will have the same RW which is not consistent with the objective of a capital charge representing a measure of unexpected loss. Moreover, F depends on the seniority of the tranche which raises the major issue of discontinuity in the calculation of the capital charge.

With F=1 on the senior, the BCRA capital RW of the senior is equal to the RW of the pool under the standard approach. In other words, with F=1, the RW of the senior tranche is always at the cap being the RW of the pool.

For junior tranches, the use of F=2 results in too conservative levels and massive cliff effect as the level of 1250% RW is reached very quickly.

Application to senior re-securitisation exposures

In applying the concentration ratio approach to senior re-securitisation exposures, it is more reasonable that the assigned risk weight should be that of the average of the risk weights on the assets sufficient to cover the tranche (i.e. ignore the lower rated assets that simply provide over-collaterisation). By way of example – an $80 senior tranche secured on $100 of assets would look through the average of the risk weights of the best $80 of assets.

Question 13: *What factors should the Committee consider in weighing whether the F parameter should be set at 2 for senior as well as non-senior tranches to avoid arbitrage opportunities?*

The arbitrage opportunity raised by the Committee relates to a situation where there is a widely different risk weight between the IRB and standard approach. The issue here stems from inconsistencies between the two approaches and are not due to securitisation. These inconsistencies have to be corrected at the level of the calculation of the capital charge on the assets, not in the securitisation framework.

In addition, with F=2 for senior, the BCRA RW of the senior would be equal to 2 times the RW of the pool. This is too conservative as it violates the principle of the cap of the senior tranches being the RW of the pool.

Question 14: *How prevalent and material are securitisation exposures backed by mixed pools?*

Pools with a mix of IRB and SA assets are typical of situations such as:

- underlying assets have been originated in different jurisdictions using different approaches for the capitalization of credit risk,
- The assets in the underlying pools are not self-originated and come for instance from corporates seeking bank support or financing.

Pools with a mix of securitisation assets and non-securitisation assets mainly apply to:

- CLO (Leveraged Loans) transactions,
- Non self-originated pools or ABCP conduits where the originator provides credit enhancement.

With respect to ABCP, we anticipate materiality provided the look-through approach is still applicable for purchased receivables otherwise the issue would be material.

Question 15: *Is the proposed treatment for mixed pools appropriate, or should another approach be employed?*

No. We recommend that the MSFA be applicable to the subset of exposures where the data is available. In addition, we recommend that the pro rata basis between the MSFA and other approaches be applicable for mixed pools.

Question 16: *Is the definition of maturity appropriate, in light of the Committee's objectives?*

Regarding the concept of maturity as introduced by the Basel Committee, our objections are twofold:

- The first one relates to the definition of maturity itself,
- The second relates to the inconsistent use of maturity across proposed approaches.

Definition of maturity

While we understand the spirit of the maturity definition for a single asset, we do not agree with the literal application of this definition to a pool of assets. The cashflows of a pool result from the actual realisation of the contractual payments of individual assets. The cashflows of the tranches depend of the actual pool cashflows instead of the contractual payments of each individual asset.

The final legal maturity of a tranche is linked to the last cashflow of the underlying pool with the addition of a recovery period depending on the jurisdiction and regulatory system. As a result, the actual maturity of the tranche is usually very different from the final legal maturity, especially for senior tranches.

The regulatory definition of maturity for securitisation should be based on the weighted average life of the tranche reflecting economic specificities such as prepayment rates, default rates of the underlying pool. Those parameters should be accounted for in the definition of maturity in a sound and prudent manner and should be reviewed at least yearly and at a higher frequency if need be. Due consideration should be also given to assets having short maturities (such as trade receivables for which the DSO is around 90 days, less below the 1 year floor – see annex 2).

Inconsistent use of maturity across proposed approaches:

Maturity under the IRBA is taken into account via the explicit maturity adjustment for wholesale exposures and via increased systematic correlation for retail exposures. The

MSFA replaces the explicit maturity adjustment under IRBA with another explicit maturity adjustment, thus double-counting the maturity impact for retail exposures. The SSFA and BCRA take into account the maturity via the Basel 2 inputs.

One of the biased assumption that the MSFA has and the SSFA doesn't is the inclusion of EL implicit by its non deduction in parameter wi. This creates large increases of capital with maturity without the offset of future income margin. The SSFA does not have this issue by using the Basel 2 RW which contains an implicit deduction permitted by the presence of the future income margin.

We urge the Committee to remove the RRBA dependence on maturity as we consider it is double-counting with agencies rating methodologies that already incorporate tranche maturity in their analysis.

Question 17: *Is the proposed 20% risk-weight floor set at an appropriate level? Please provide justification and evidence, to the extent possible, for alternative levels for the risk weight floor.*

We would like to outline that there is no theoretical backing for a 20% minimum risk weight to apply to senior securitisation positions. The 20% RW floor appears to be arbitrary and simplistic.

Our view is that it seems to be the result of an attempt to use a one-fits-all formula for capturing:

- the risk that the pre-securitisation capital charge of the assets may be understated (meaning that the KIRB as an input to the MSFA may not reliable and may justify an additional buffer);
- the risk of adverse rating migration over the life of the transaction (irrespective of the underlying assets' actual maturity and of the replenishment rules). In the new revised framework, the senior AAA rated tranche is expected to withstand a 1929 crisis scenario so that no only it would not suffer any losses but also so that its future risk weight should remain stable.

The requirement that senior tranches are risk-free in virtually any circumstances is inconsistent with what is expected of any AAA-rated asset, whose capital charge will increase if and when their credit profile deteriorates over time. Requirements for securitisation positions are inconsistent with the general capital rules, where 99.9% of loss scenarios are captured over a 1-year horizon. Is it fair that the capital charge on securitisation positions address concerns over the adequacy of the capital charge of the underlying assets?

One of likely outcomes is that banks will find it uneconomical to reduce the credit risk of their assets through synthetic securitisation, whereas there are no equivalent alternatives available for credit risk mitigation on banking book loans which are not liquid (the majority of loans are not traded on the Credit Default Swap market).

The proposed floor introduces artificially high risk weights on senior tranches and the magnitude of conservatism is particularly acute on high-quality pools.

A fixed floor introduces artificially high risk weights on senior tranches backed by high-quality pools and too low risk weights for tranches backed by low-quality pools undermining the Committee's objective of risk sensitivity. For the sake of illustration, the following table provides the risk weight induced by MSFA (before applying the 20% floor) on the iTraxx Europe index for different attachment points and thickness. A 5 year-maturity is assumed. Yellow cells represent cases where the 20% floor will apply.

MSFA on Itraxx main Europe index on a maturity of 5Y

Cap Kirb									
CAP	438.12%	219.06%	146.04%	109.53%	87.62%	73.02%	62.59%	54.77%	48.68%
tranche thickness - attachment point	**10%**	**20%**	**30%**	**40%**	**50%**	**60%**	**70%**	**80%**	**90%**
2.50%	359.67%	191.36%	128.11%	96.10%	76.88%	64.07%	54.91%	48.05%	42.71%
5.00%	144.50%	78.33%	52.48%	39.36%	31.49%	26.24%	22.49%	19.68%	17.50%
7.50%	79.19%	42.74%	28.62%	21.47%	17.17%	14.31%	12.27%	10.73%	9.54%
10.00%	43.04%	23.12%	15.47%	11.60%	9.28%	7.74%	6.63%	5.80%	5.16%
12.50%	23.06%	12.32%	8.24%	6.18%	4.95%	4.12%	3.53%	3.09%	
15.00%	12.15%	6.46%	4.32%	3.24%	2.59%	2.16%	1.85%	1.62%	
17.50%	6.29%	3.33%	2.23%	1.67%	1.34%	1.11%	0.95%	0.83%	
20.00%	3.20%	1.68%	1.12%	0.84%	0.67%	0.56%	0.48%	0.42%	
22.50%	1.59%	0.83%	0.56%	0.42%	0.33%	0.28%	0.24%		
25.00%	0.77%	0.40%	0.27%	0.20%	0.16%	0.13%	0.12%		
27.50%	0.37%	0.19%	0.13%	0.10%	0.08%	0.06%	0.05%		
30.00%	0.17%	0.09%	0.06%	0.04%	0.04%	0.03%	0.03%		

The same arguments hold for RRBA users. Indeed, the introduction of the 20% floor will lead to ABCP conduit financing being generally more expensive than classical loans for well-rated corporates (see also the ABCP discussion in annex 2). It makes no sense since ABCP conduits funding is coming from the capital market (indirect risk taken via the liquidity line) backed by assets with a credit enhancement provided by the corporate itself and other protections added to the structures (e.g. lockboxes to cover commingling risk), whereas classical loans are unsecured and are held directly on the bank's balance sheet.

For the sake of illustration, let us consider an ABCP securitisation with internal rating equivalent to a S&P AA- rating and let us compare its risk weight with the ones of unsecured corporate loans for different rating. We assume a one-year maturity and a 39% LGD for those loans. The following table illustrates that ABCP funding will attract more capital than unsecured loans provided that the corporate is rates above BB

Comparaison pour la titrisation ABCP des RW% pour une titrisation vs financement bilatéral

client français corporate - LGD=39% - Mat=1Y

Rating Client	RW irb%
AAA	6.6%
AA+	6.6%
AA	6.6%
AA-	6.6%
A+	6.6%
A	11.1%
A-	11.1%
BBB+	22.4%
BBB	33.6%
BBB-	49.8%
BB+	55.7%
BB	69.7%
BB-	81.5%
B+	114.3%
B	114.3%
B-	163.9%
CCC+	193.2%
CCC	193.2%
CCC-	193.2%
CC	193.2%
C	193.2%

tranche titrisation conduit IAA senior granular pour des TR (DSO = 90j)

mat = 1Y

Rating Titri	current IAA/RBA	Revised RBA
AAA	7%	20.0%
AA+	8%	32.4%
AA	8%	51.1%
AA-	8%	60.9%
A+	10%	71.0%
A	12%	81.3%
A-	20%	93.5%
BBB+	35%	105.6%
BBB	60%	117.5%
BBB-	100%	135.6%
BB+	250%	153.1%
BB	425%	169.8%
BB-	650%	209.9%
B+	1250%	261.8%
B	1250%	320.5%
B-	1250%	388.6%
CCC+	1250%	472.3%
CCC	1250%	472.3%
CCC-	1250%	472.3%
CC	1250%	1250.0%
C	1250%	1250.0%

In fact the total capital requirement of all the tranches of the securitisation should very much be the same as the capital requirement of the underlying portfolio, and in any cases the most senior tranche should receive a (much) lower risk weight than the underlying portfolio since it provides much more protection to investors.

This property was approximately realized under current rules.

Under the current rules, if a portfolio has an average RW of 30%, then the 2.4% first loss will be risk weighted at 1250%, mezzanines tranches will be risk weighted between 1250% and 7%, but represent usually around 2.4% of additional enhancement in order to reach a senior tranche that in the best case will have a 7% risk weight. Economically, a portfolio that has a capital charge of 2.4% before securitisation will have a capital charge after securitisation that will be much higher, at least: 2.4% +1.2% + 0.5% = 4.1%, nearly doubled (x1.7 in this case).

For a portfolio with lower quality, the securitisation will be much more efficient, because the floor of 7% will be much lower than the risk weight of the underlying asset: assume an average RW of 300%, the first loss will be of 24%, mezzanines tranches will have a size of around 24% and in the best case the senior tranche will be weighted at 7%. This is an average capital charge after securitisation of 24%+12.1%+0.3% = 36.4% which is more favourable (x1.5) but do not create too much discrepancies between portfolio of different qualities.

With a floor of 20% and under Bale 3 new capital rules the good quality portfolio will be much more penalized than the low quality portfolio: the capital charge after securitisation will be of 2.4%+1.2%+1.5% = 5.1% which is much higher in absolute terms (x2.1). Moreover, the proposed RW are more conservative than the current rules, which tend to increase the average size and weight of the mezzanine layer (this effect has been neglected for this illustration).

For a low quality portfolio, the capital charge after securitisation will be only marginally increased: the capital charge will move to 24%+12%+0.8% = 36.8% (still a x1.5 ratio).

Having a fixed floor is thus a very bad incentive: **only low quality portfolios do not bear a too high capital increase**; and can thus be securitized; which means that during the crisis this method would have been completely inefficient to reduce the incentive to securitize subprime real estate loans.

Assuming that this floor covers the uncertainty around the validity of AAA ratings, it should be bounded by a fraction of the capital charge of the underlying portfolio, and as a consequence should depend on the maturity of the underlying portfolio. For example with a floor of 10% of the capital charge of the underlying portfolio, the floor for the senior tranche will be higher than 20% for the low rating portfolio (it will represent a floor on the risk weight of 30% =10% x 300%) and for the high rating portfolio it will be lower (3% =10% x 30%). In this case the increase of capital requirement will be similar for both securitisations:

x 1.6 for the high rating portfolio (capital charge: 2.4%+1.2%+0.2% = 3.8%)

x 1.6 for the low rating portfolio (capital charge: 24%+12%+1.2% = 37.2%)

As a conclusion, should the floor be set at a 20% level:

the incentive would be for banks and investors to move from holding highly-rated tranches to holding riskier tranches that benefit from a more lenient treatment under new proposed rules;

Therefore, we believe that a more sensible approach to calculate the floor should require the floor to be a function of the RW of the underlying pool. The mathematical answer of the conservation of the 6% model risk charge under Basel 2 (1.06 scaling factor) means that the charge has to be 6% of the RW of the pool. If this charge has to be distributed linearly, this could generate a minimum floor of 6% times RW of the pool. With this approach, a floor of 20% is the appropriate level for a low quality pool with an IRBA RW of 330%.

Question 18: *Should the risk-weight floor for short-term exposures be the same as for long term exposures?*

As exposed in the answer to the previous question, there seems to be no rationale to have a unique floor no matter what is the type and maturity of the underlying asset and whether such asset is self-originated or not.

The floor should be largely dependent on the capital of the underlying assets, and should in this respect also depend on the maturity of the assets to meet the objective of the committee to have a more risk-sensitive calibration.

As a matter of fact, short-term exposures like ABCP with a maturity less than a year should be entitled to benefit from a lower risk-weight floor. Indeed it could be envisaged for short-term asset with a monthly/quarterly calculated dynamic credit enhancement to align the floor on the KIRB. For purchased receivables transactions where the portfolio is revolving and credit enhancement is recalculated at each reloading, this means that performances of the pool are automatically reflected in the protection that the senior tranches benefit from. In that sense it seems reasonable to have a floor for short-term asset which closely reflects the quality of the pool.

Question 19: *Are the proposed caps and their interactions with the proposed floor risk weight appropriate?*

Securitisation simply redistributes both the EL and UL of the pool through tranching: it does not create additional risk. So in an arbitrage free model, the capital requirement of the pool equals the sum of capital requirement on the tranches unless there are specific adjustments for Basel II assumptions that are not complied with (for instance, securitisation with replenishment periods that change the maturity of the collateral). Under the revised framework, this rule is respected outside the model through the introduction of the overall cap. The mere fact that this cap exists is because the proposed models do not respect the free arbitrage model rule. We find in our sample of ten deals that the sum of capital requirements on the tranches is 3 to 4 times the capital requirement on the pool (as measured by the ratio of tranches RWA to pool RWA). So this in itself shows that the proposed models are artificially creating capital and as a result an overall cap is necessary. We also question the rationale for the overall cap to apply only for the originator or sponsor. Why does it not apply to the investors as well?

Similarly to the overall cap, the mere existence of RW cap on the senior tranche is a proof that the proposed models are artificially creating capital. Indeed, in the arbitrage free model that we propose in answer to question 21, the RW on the senior tranche is below the RW on the pool since the senior tranche benefits from credit enhancement.

Based on our sample of 10 transactions (see answer to question 24), we find that in many cases, the RW cap or floor on the senior tranche is reached under all revised methods.

	Alternative A			Alternative B			Backstop
	MSFA (A)	SSFA (A)	RRBA (A)	MSFA (B)	SSFA (B)	RRBA (B)	BCRA
% of senior tranches at the cap	50%	30%	60%	30%	0%	30%	100%
% of senior tranches at the floor	20%	30%	0%	20%	30%	0%	0%
% of senior tranche not at cap or floor	30%	40%	40%	50%	70%	70%	0%

This is the proof that the revised framework is incorrect as it artificially creates UL on the tranches. In addition, it means that the revised methods do not meet the stated objective of the BCBS committee to be risk sensitive. For instance, in the case of the senior tranche of a subprime RMBS downgraded to CCC and with 29% of delinquencies, the application of the KSA cap leads to a RW of 70% whereas the RRBA RW before cap is 568%. This creates an arbitrage opportunity as banks would have an incentive to buy low quality senior tranches.

Finally, we would like to confirm that:

- Capital requirement caps apply proportionally to the amount held. For example, if the originator retains a vertical slice consisting of a rateable share of 5% of each tranche offered to investor, the originator's maximum capital requirement should equal the same rateable share (5%) of the capital requirement that would apply if the pool exposures had not been securitised. The same principle of proportionality should apply to the originator's (or a sponsor's or investor's) holding of any tranche or tranches of a securitisation. In the above example, if the originator, rather than retaining a 5% vertical slice, retained half of each of the mezzanine and junior tranches (or half of the mezzanine tranche and one-fifth of the junior tranche), its capital requirement should not exceed half of the capital requirement that would apply if it retained the whole pool of exposures. If an investor buys 10% of the senior tranche, its capital requirement should not exceed 10% of the capital requirement of the unsecuritised pool.

- the cap for senior securitisation exposures is still available when computed on the basis of semi-aggregated data

- it is acceptable to compute a cap using the standard approach when the bank has the theoretical agreement to use the irba approach but does not have access to the relevant data

***Question 20**: Are there other approaches that could provide a more risk-sensitive treatment while still being prudent and operationally straight-forward to implement?*

The definition of “write-down” should be clarified:

If a write-down is defined as remarking of the carrying value of the portfolio (in particular in the case the position marked to market), the benefit of the carrying value should be incorporated into the attachment point for the purposes of MSFA, SSFA and RRBA.

If a write-down is defined as a reassessment of the expected recovery from the bonds (also qualified as "credit risk adjustment”), this amount should be in deduction of the RWA times 12.5.

Provisions reflect the amount of expected loss which can be estimated reliably and in a probable case based on the carrying value: if not applied in deduction of the current regulatory capital, there would be a double counting of the “buffer” to cover losses on the securitised tranche: once through the credit risk adjustment that impact the P&L, once by the application of the RW, especially when a securitisation position attracts a 1250%RW.

Own originated securitisation positions will not have a carry value for the tranches, as they are usually not derecognised from accounting. Hence the capturing or position size and allocation of value adjustments on the underlying portfolio will have to be reconsidered by the Committee.

Though the CD states that the risk weight should be calculated and applied against the book value (carrying value), a security held at discount carries less risk than the same security held at par. The benefit of the carrying value should be incorporated into the attachment point for purposes of MSFA and SSFA, and the RRBA should include an adjustment in the risk weight calculation based on the percentage discount to par at which the security is held.

Discounts/write-downs should be applied "bottoms up" on a tranche – e.g., if you own the 50%-100% tranche at a 20% discount, either apply the discount to the bottom 20% of that tranche (i.e. carry the 50-60% slice at $0, and the 60-100% slice at $100), or using some continuous distribution which values the 50-51% slice at (e.g.) $2, and the 99-100% slice at $100. Capital would be the integral of (marginal market value) * (tranchelet risk weight).

Here are simple examples illustrating the issue:

- Investor 1 buys a securitised tranche T at 100 and the resulting Risk Weight is 8% hence the capital for investor 1 is 8.

- Investor 2 buys the same tranche T at a discount of 20, based on the current formulae, the risk weight will be 8% hence the capital requirement for this investor 2 will be 6.4 after deduction of the discount to the EAD.

- If the final loss on the tranche is 15, then investor 1 will provision 7 more on the top of capital already allocated while Investor 2 will recover 5 from its initial discount and release the full amount of capital i.e. 6.4.Now let’s assume that the same tranche T is sub-tranched within the same initial securitisation structure with a senior T1 (with an attachment from 20 and detachment point to 100) and a junior T2 (with an attachment point at 0 and detachment point at 20). If investor 3 buys the tranche T1 at par, then the credit risk will be exactly the same as in the case of investor 2.

However, when using the MFSA or SSFA, then the attachment point will be higher and therefore the resulting risk weight will be lower. Hence, in order to maintain, the same capital between investor 2 and investor 3 having the same credit risk, the discount should be taken into account via the attachment point.

As a conclusion, in order to avoid allocating twice the same capital for the same risk and hence creating arbitrages:

1/ Discount should be taken into account via the increase of the attachment point of the structure in the MSFA and SSFA in order to take into account the credit enhancement;

2/ Write down should be used to directly offset the capital in order to avoid a double counting of the capital allocated for Expected Loss and like it is already the case under CRD IV;

3/ Discount should not affect the tranche thickness definition.

***Question 21**: Are the assumptions used in developing and calibrating the approaches discussed above appropriate in view of the Committee's stated objectives? Please provide empirical justification for alternative assumptions to those noted above.*

The modelling approach for assigning capital requirements should derive from principles.

Basic Principles for a Basel 2 arbitrage-free regulatory approach

Principle 1 (Accounting Concepts and Pillar 1 Key Assumption): the balance sheet of the Bank has two sides: the asset side (loans that accrue and trading activities) and the liability side (capital, wholesale debt and retail deposits). Securitisation SPVs have also two sides: the asset side with the securitised assets and the liability side with the tranches. For a financial entity, you will thus have asset concepts and liability concepts. A securitisation tranche is an asset of the Bank and this asset represents an insignificant portion of the balance sheet of the large and diversified Bank; it has a non-zero marginal contribution to the systemic risk of the Bank, like any other asset.

Principle 2 (IRBA ULC Components): in IRBA, the Unexpected Loss Contribution (ULC) of any asset to the capital requirement of the Bank has 3 components; it is equal to a) its marginal contribution to the value at risk of the Bank (dependent only on the systemic risk factor Y_{Bank}) less b) its marginal contribution to the expected loss of the Bank, adjusted for c) its marginal contribution to the model risk charge.

Principle 3 (ULC Additivity[4]): the ULC of an individual asset is proportional to its size and is additive to the UL of the large and diversified Bank. The principle of ULC additivity is not changed by the mere fact of being in an homogeneous pool (the 'Pool').

Principle 4 (Entity Neutrality): the Pool does not change its contribution to the UL of the Bank, by the mere fact of being on-balance sheet in a portfolio (the 'Portfolio') or off-balance sheet in an SPV (the 'SPV').

Principle 5 (EL Conservation): the Expected Loss of an untranched Pool is the same as the Expected Loss of all the tranches from that same Pool when tranched.

Principle 6 (Avoiding Model Arbitrage): the IRBA model (the Asymptotic Single Risk Factor model) developed by the Basel Committee has an underlying theory derived from the Vasicek mathematical development. To avoid model arbitrage[5], an arbitrage-free model for

[4] ULC Additivity leads to 'RWA Additivity' for assets

[5] Model arbitrage can be done easily when the distributions of two models are fundamentally different, even if the aggregate is identical. A model can be capital-neutral for example, that will not make it arbitrage-free. Example of such a model that is capital-neutral, but not arbitrage-free, is a model that results in the full deduction of capital for tranches below a certain threshold equal to the aggregate of capital requirement of the pool, and zero capital requirement for tranches above.

securitisation capital tranches should use the same underlying theory as the ASRF with regards to the systemic risk of the Bank.

Principle 7 (Model Risk): the marginal contribution of a Pool to the model risk charge of the Bank should not generate further model risk.

Principle 8 (Mathematical Continuity): for a continuous tranching function (the 'infinitely grained' tranches) with a continuous asset function ('infinitely grained' pool), the computation of the capital requirement should not exhibit any mathematical discontinuity.

Principle 9 (Transparency): any adjustment to reflect specific changes to the securitised assets or structural features or non-respect of model or regulatory assumptions need to be explicit and transparent, if arbitrage is to be avoided.

Practical consequences from those principles

Consequence A from Pillar 1 principle: since Pillar I is mainly concerned with the contribution of an asset to the systemic risk the Bank, the inputs needed in the IRBA model are vis-à-vis the systemic risk, but not necessarily vis-à-vis other risks that are not systemic for the Bank. Vis-à-vis the systemic risk, the inputs to the arbitrage-free model for an individual securitised asset should not change.

Consequence B from Pillar 1 and IRBA ULC Components principles: since securitisation tranches are also assets of the Bank, its contribution to the capital requirement of the Bank should also be equal to its marginal contribution to the value at risk of the Bank (calculated with the systemic risk factor Y_{Bank}) less its marginal contribution to the expected loss of the Bank, adjusted for its marginal contribution to the model risk charge.

Consequence C from the ULC Additivity principle: the addition of an asset in the Pool should modify the ULC of a tranche based on the characteristics of that asset only. There should be no part in the capital structure resulting in an area that is not risk sensitive to the underlying asset risk.

Consequence D from ULC Additivity and EL Conservation principles: the unexpected loss contribution is distributed 'above' (or 'on top') of the expected loss contribution.

Consequence E from ULC Additivity and Mathematical Continuity principles: the arbitrage-free model should be able to calculate capital requirement of any tranche, from very thick to infinitely grained, continuously, assuming that the tranche itself is an asset of the bank, in a bank large and diversified.

Consequence F from the Mathematical Continuity principle: since there is no mathematical discontinuity, the arbitrage-free model should not require the use of smoothing techniques.

Consequence G from ULC Additivity and Avoiding Model Arbitrage principles: the arbitrage-free model should not require caps, to correct for a mathematical distribution that 'overshoots'.

Consequence H from Avoiding Model Arbitrage and Model Risk principles: the arbitrage-free model should not require a mathematical floor[6], instead a capital charge for model risk should be added to any core mathematical results of the model itself.

Consequence I from ULC Additivity and Entity Neutrality principles: by having the securitised assets in an SPV, the arbitrage-free model does not add, nor does it reduce artificially the ULC of the Pool.

Consequence J from Transparency principles: the requirement for transparency should lead to explicit adjustments for specific features typically seen in securitisations, as well as determining the assumptions under which an approach can be used validly or not. The calibration of a model should be done in a transparent manner, and when a regulatory choice to apply an arbitrary parameter, it should be made clear that it is arbitrary. Uncontrolled arbitrary choices are potential sources of arbitrage.

Consequence K of respecting all 9 principles: there should be no possibility to arbitrage regulatory-wise the model in itself, as the originator or investor would be indifferent whether to sell or to keep a particular tranche or tranchelet (from the perspective of a mathematical distribution). A model respecting all the above would thus be a 'Basel 2 arbitrage-free' model.

There is a very simple and straight-forward methodology to implement, to be arbitrage free, and rating free, with no cliff-effect which complies with the principles above-mentioned.

It is important to note that the 'Basel 2 arbitrage-free' solution is not necessarily mathematically unique. There could be other solutions that could satisfy the principles that have been stated[7].

We agree with the assumption that if the securitized assets were held directly by the bank, their capital charge would be equal to the IRBA capital charge. However, we note that in all the proposed models, this rule is not respected and new capital is created artificially. To respect the rule, an overall cap is necessary outside the model. In the Basel II arbitrage free approach that we propose, the UL of the tranches is derived from the PD/LGD/Correlation of the securitized assets. This method ensures that if the securitized assets were to be held directly by the bank on its balance sheet, they will warrant the same capital charge as under the IRBA approach.

[6] A floor is defined mathematically by using the min(,) function. A model requiring a floor can be arbitraged by construction. Indeed at the point where the distribution is equal to the floor, the capital is always half what it ought to be, by construction. To avoid arbitrage, the concept of a floor should be removed altogether and replaced by an explicit and transparent additional capital charge for model risk. You cannot arbitrage a mathematical addition.

[7] As a concept, should the Basel Committee be inclined towards Principle Based Modelling Approaches, then open Requests For Proposals could be sent to the academic world and industry specialists once the Basel Committee has established the principles that such proposals need to meet. Then an assessment of the answers of such proposals would lead to an appropriate solution to various regulatory issues. To a certain extent, BCBS236 by asking questions on alternatives to the current models that have been developed by following Rule-Based Modelling Approaches is opening the path towards Principle-Based Modelling Approaches.

Assumptions of the approaches discussed in the consultative document

Regarding the approaches discussed in the consultative document, we agree with the assumption to use historical corporate data as a proxy for the EL on securitisation tranches. Indeed, rating agencies have changed their methodologies on securitisation very conservatively. Certain rating agencies have also detailed their rating definitions to link them with macro-economic scenarios. For instance, S&P consider that a AAA rating is one that would be expected to withstand an economic crisis on a scale equivalent or greater than the 1929 crisis with a drop in GDP of 30%. This type of economic scenario is applied for both corporates and securitisation. As a result, we expect that future observed EL on securitisation will be consistent with ones on corporates.

As maturity is a factor, the 99.9% interval of confidence use of the capital at the one year horizon has to be adjusted lower when looking at longer maturities.

Regarding future margin income, we consider that the fact that they are not recognized is not consistent with IRB wholesale framework. Indeed under IRBA, the calibration of maturity adjustments implicitly provides some recognition to future margin income. This inconsistency leads to an asymmetry between the capital requirement on the pool under IRBA and the sum of capital requirements on the tranches.

Regarding the calibration of the RRBA, we disagree with the assumption to use a low quality pool of B rated corporates, with PD of 4.729% and LGD of 60%. As explained in the answer to question 6, such low quality pools are not representative of most transactions in the market. For instance, prime UK or Benelux RMBS, representing 2/3rd of the European ABS market, typically have pool PD below 1% and LGD below 25%. For such transactions, the RRBA method consistently overestimates the MSFA and the cap on the senior tranche systematically applies. We recommend that the pool taken for calibration of the RRBA be representative, i.e. that there be different RRBA calibration for different pools.

Regarding the calibration of the RRBA, we agree with the assumption that the regulatory add-ons embodied in the MSFA be suppressed, i.e., tau and omega set at infinity and positions below Kirb not subject to 100% capital charge. However the floor should be a function of the RW of the pool.

***Question 22**: Is the proposed treatment of retail securitisations using the same approaches as for corporate securitisations appropriate? Would additional complexity (in the form of an additional formula to adjust the AVCs of retail underlying exposures) be justified to remove the double-counting effect of maturity effects?*

Calibration based on corporate exposures to develop a methodology that would then be applied to other types of exposures, including retail, is inappropriate:

(i) it doesn't take into account the specificities of retail transactions, and

(ii) Corporate exposures should only be applied to securitisations of corporate loans, and a calibration specific to retail exposures would be more relevant to securitisations of retail loans.

Indeed, performance of retail portfolio is primarily influenced by:

1. Lending by regulated entities
2. Recourse to the borrower
3. Personal bankruptcy laws
4. Responsible lending practices

We question why there should be as a starting point an increase in the capital of the underlying asset. The double counting is in the computation of the parameter wi, There is no need to modify the Basel II systematic correlation AVCi. Instead, wi should be set as wi = N(si).

***Question 23**: How could concerns that securitised retail exposures have high default risk or high correlation be managed?*
Please provide data supporting any modifications to the proposed approaches, particularly the MSFA and revised RBA, to account for differences in risk based on underlying exposure types.

The resilience of the retail securitisations in European countries to the US subprime crisis suggests that their evolution is more dependent on local origination practices and legislation than on the evolution of global economy. The assumption that retail assets bear higher losses is unfounded in many jurisdictions. Therefore we consider as inappropriate to apply overly conservative risk weights to all retail securitisations regardless of their jurisdiction. We would rather encourage regulators to make retail securitisation exposures capitalisation consistent with observed default rates and correlation by differentiating these parameters per jurisdiction.

Question 24: *Is the relative calibration of the approaches appropriate? Please provide empirical data to support any conclusions.*

Asymmetry leads to much higher risk weight on the tranches than on the pool

The revised methods lead to results that violate the principle that the total capital of the pool is equal to the total capital of the tranches.

To support this conclusion, we have used a sample of 10 transactions across retail and corporate pools: French auto ABS, UK prime RMBS, 2 Benelux RMBS, US Subprime RMBS, French SME, Italian SME, CLO of high grade corporates, CLO of US leveraged pre crisis and CLO of US leveraged loans post crisis (see more details under sample results at the end of this question). Based on this sample, we show for the different revised methods, the ratio between the RWA of the tranches (both with senior tranche capped and uncapped) and the RWA of the pool before securitisation (IRBA or SA depending on the proposed method). We observe that the average ratio is very high being in a range of 2.2 to 5.9 with some individual transactions being as high as 9.6 (uncapped).

	Alternative A						Backstop
	MSFA (A)	Before senior cap	SSFA (A)	Before senior cap	RRBA (A)	Before senior cap	BCRA
Number of deals applicable	10	5	10	3	10	6	10
Average ratio	2.8	3.6	2.7	4.4	3.0	4.9	2.9
Max ratio	4.4	5.0	4.9	8.1	6.0	9.6	3.6
Min ratio	1.7	2.0	1.6	2.5	1.6	2.6	1.6

	Alternative B					
	MSFA (B)	Before senior cap	SSFA (B)	Before senior cap	RRBA (B)	Before senior cap
Number of deals applicable	10	3	10	0	10	3
Average ratio	2.2	3.2	2.4	n.r.	2.7	5.9
Max ratio	3.3	3.5	3.5	n.r.	4.3	6.3
Min ratio	1.2	2.9	1.2	n.r.	1.6	5.7

This is because the revised methods have an asymmetry between the way the capital charge is calibrated on the pool and on the tranches. Such an asymmetry could be avoided using an arbitrage free approach. The MSFA and SSFA/BCRA methods use an incorrect simplification in taking either the Kirb or the Ksa as a threshold for deduction in the capital charge calculation. This error also contaminates the RRBA approach as it is calibrated based on the MSFA. To conclude, the issue is not one of calibration but rather one of underlying assumptions. We need a method that complies with the arbitrage free concept as proposed in answer to question 21.

Inconsistency with historical performance of the pool

The proposed capital charge calculation, especially with the fixed floor of 20% on the senior tranches, results in inconsistencies with the historical performance of the pool. For instance, for a hypothetical senior tranche of a prime RMBS attaching at 90%, the capital charge would imply a 100% default rate on pools that have exhibited so far PD below 1% per year!

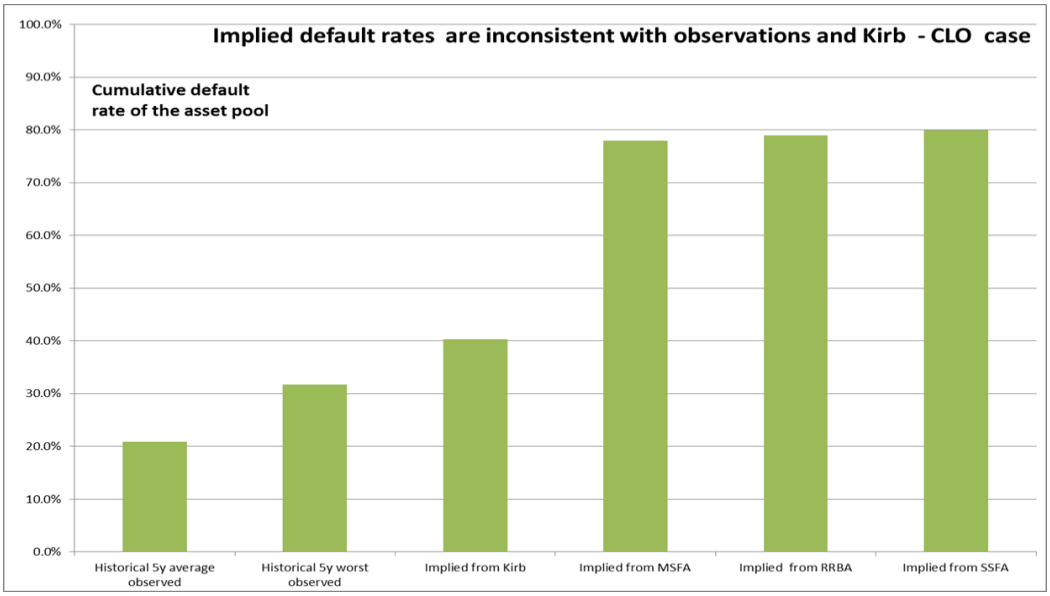
For the sake of illustration, we show below the example of a cashflow CLO backed by US leveraged loans. We have calculated the cumulative default rate on the pool that would incur a loss on the senior tranche equivalent to the capital charge under the revised methods.

Following conservative assumptions have been used in order to ensure results are reliable:

- LGD (loss given default) of 50% above the historical average of 35%
- Stressed CPR (constant prepayment rate) of 15% below the historical average of 25%.

We find out that the capital charges under the revised methods (MSFA, RRBA, SSFA) imply a cumulative default rate around 80% for the underlying pools. A 80% level of cumulative default rate is inconsistent with the worst historical data and is twice the default rate implied

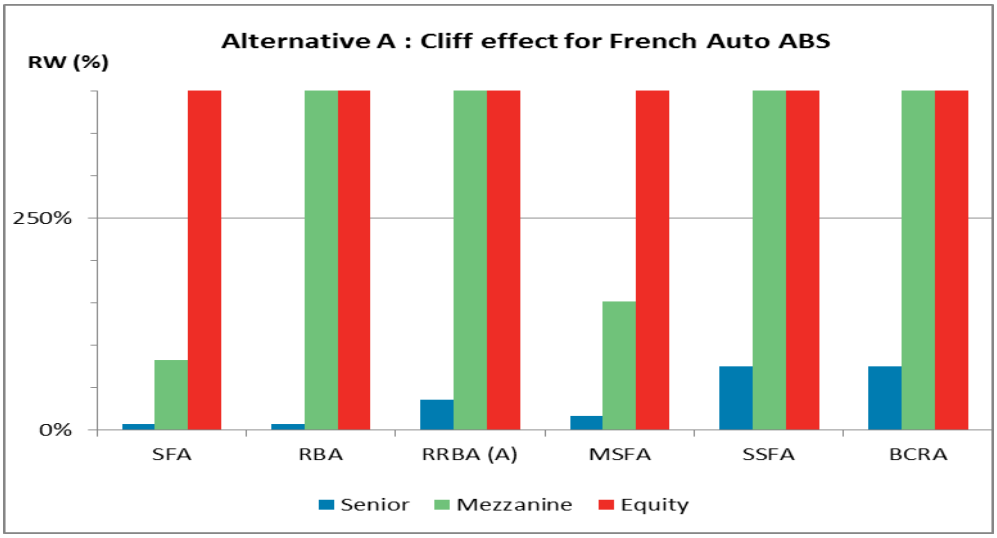
by the Kirb. By the simple virtue of transferring the assets in a securitisation SPV instead of keeping them on bank balance sheet, then suddenly their default rates implied by the capital charge doubles under the revised methods compared to the Kirb.

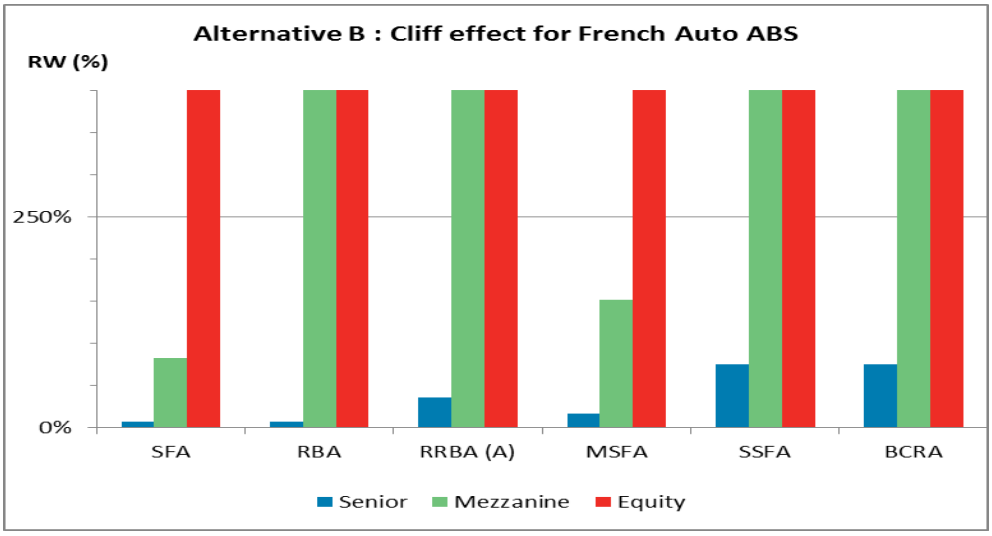


Other examples supporting this analysis are presented in Annexe 1.

Massive cliff effects

Despite the intention to reduce cliff effects, we find that there are still massive cliff effects across all methods. This is the consequence of the incorrect assumption that tranches have to be fully deducted below Kirb/Ksa. These cliff effects are particularly pronounced in the case of a typical French auto deal.

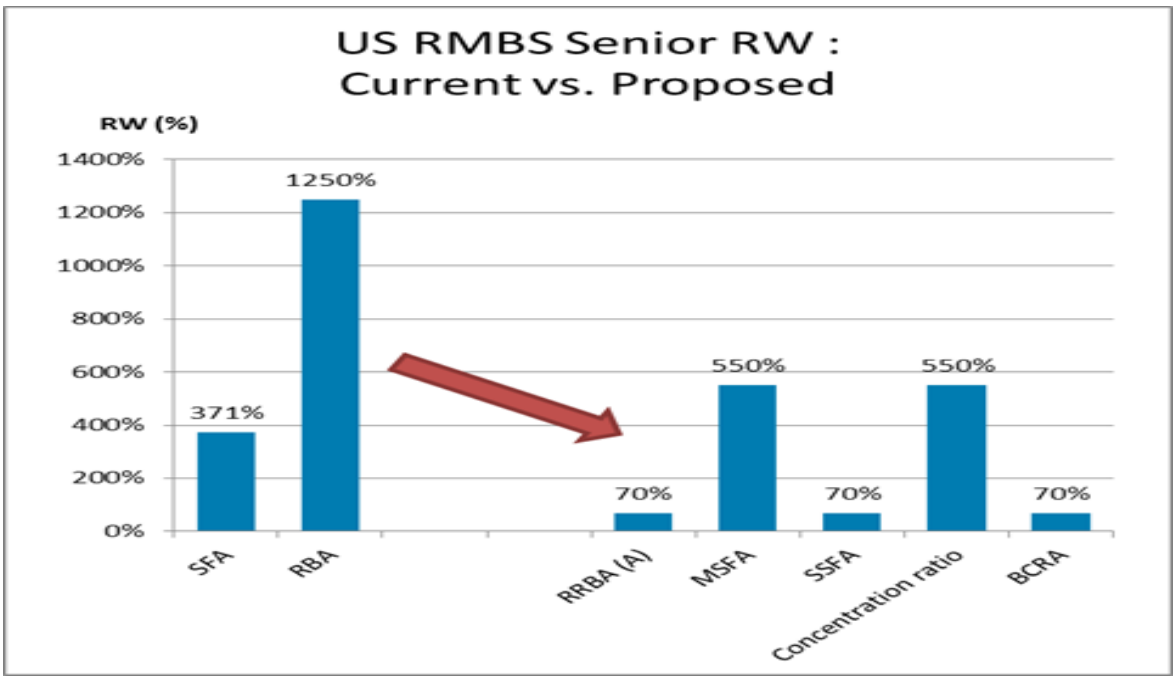




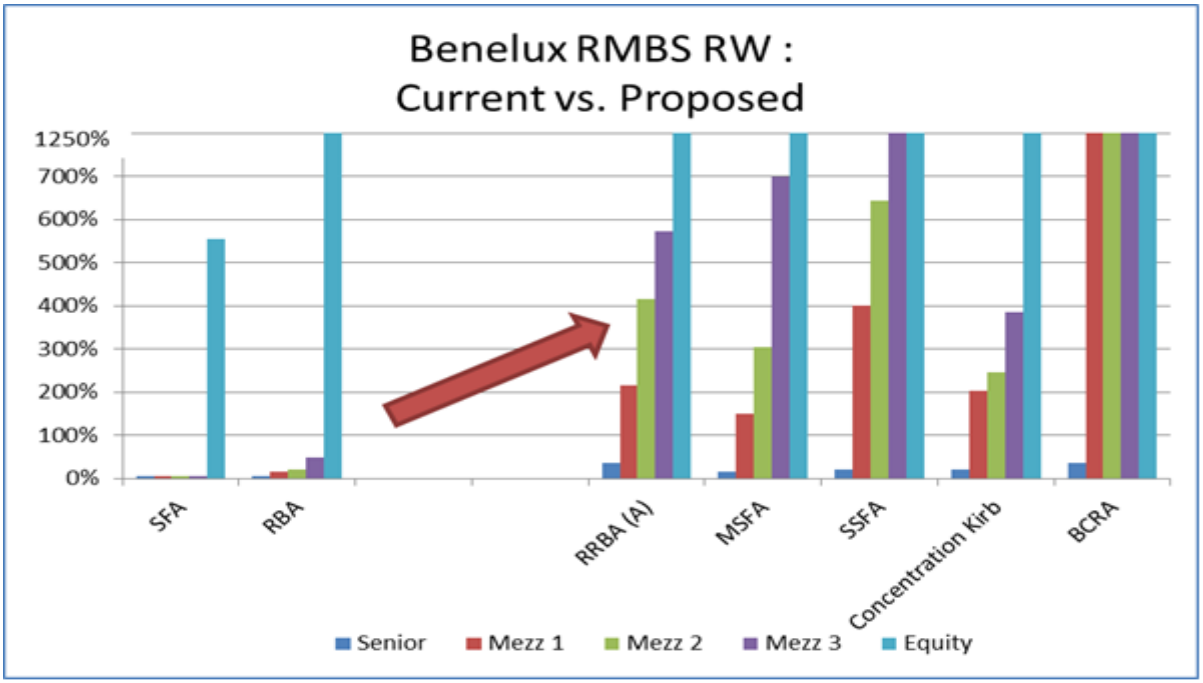
Tranches backed by poor quality pools favoured. Tranches backed by high quality pool penalised

The revised methods favour senior tranches backed by low quality assets while they are punitive for tranches backed by high quality assets as illustrated above. This provides the wrong incentive for banks as they are encouraged to move from high-quality pool securitisations to low-quality pool securitisations and comes at odds with the stated objective of strengthening the financial stability of the banking system.

By way of illustration, the senior tranche of a US subprime transaction rated CCC and currently attracting a RW of 1250% with 29% delinquency and 24% AP will see its RW improve under the revised methods especially due to the RW cap for the senior tranche. We assume that under the RRBA and SSFA the senior tranche RW are capped at the pool RW under standard approach for Alternative A. For Alternative B, we assume that the cap is based on the IRBA approach when the concentration ratio is applied.



On the contrary, a high quality Benelux RMBS will see its RW increase with the new revised methods



(For illustration purposes, we have modified the RW scale in order to see the different RWs below 50% and up to 1,250%)

For all the reasons explained above, we recommend to use an arbitrage free approach as proposed in answer to question 21.

Sample for impact study: 10 sample securitisation transactions on sample of retail and corporate portfolios.

Name	Synthetic	Synthetic	OCTAG7	OCTAG12	HERMES16	CLARIS11	ARRAN_RMF	PHEDINA11	AUTONORIA 12	FFML05F9
Category	French SME	CLO Corporate High grade	CLO US pre crisis	CLO US post crisis	Benelux RMBS 1	Italian SME	UK RMBS	Benelux RMBS 2	French Auto	US Subprime RMBS
Senior Attachment Point	6.1%	4.6%	26.8%	37.74%	8.30%	36.50%	18.22%	6.67%	21.68%	23.77%
Senior Tranche Rating	BBB (*)	BBB (*)	AAA	AAA	AAA	AAA	AAA	AAA	AAA	CCC
Pool LGD estimate	40.5%	37.8%	55.0%	51.0%	22.5%	30.2%	22.0%	14.7%	14.2%	75.0%
Pool PD estmate	0.7%	0.5%	5.6%	5.7%	0.4%	0.8%	0.2%	0.5%	3.3%	14.6%
KSA estimate	8.0%	7.6%	10.7%	11.26%	2.80%	8.00%	2.80%	1.68%	6.00%	5.60%
Pool RW (SA)	100.0%	95.1%	133.4%	140.71%	35.00%	100.00%	35.00%	21.00%	75.00%	70.00%
Kirb estimate	5.8%	4.1%	21.2%	20.17%	1.36%	5.92%	0.91%	1.05%	1.83%	44.00%
Pool RW (IRBA)	68.9%	49.9%	226.3%	215.51%	15.84%	71.17%	10.71%	12.15%	17.04%	413.07%
Cap under IRBA	72.5%	51.7%	265.1%	252.1%	17.0%	74.0%	11.4%	13.1%	22.9%	549.9%
(*) rating estimated only for purpose of calculating impact under proposed method										

Sample results: We assume that under the RRBA and SSFA the senior tranche RW are capped at the pool RW under standard approach for Alternative A. For Alternative B, we

assume that the cap is based on the IRBA approach when the concentration ratio is applied.

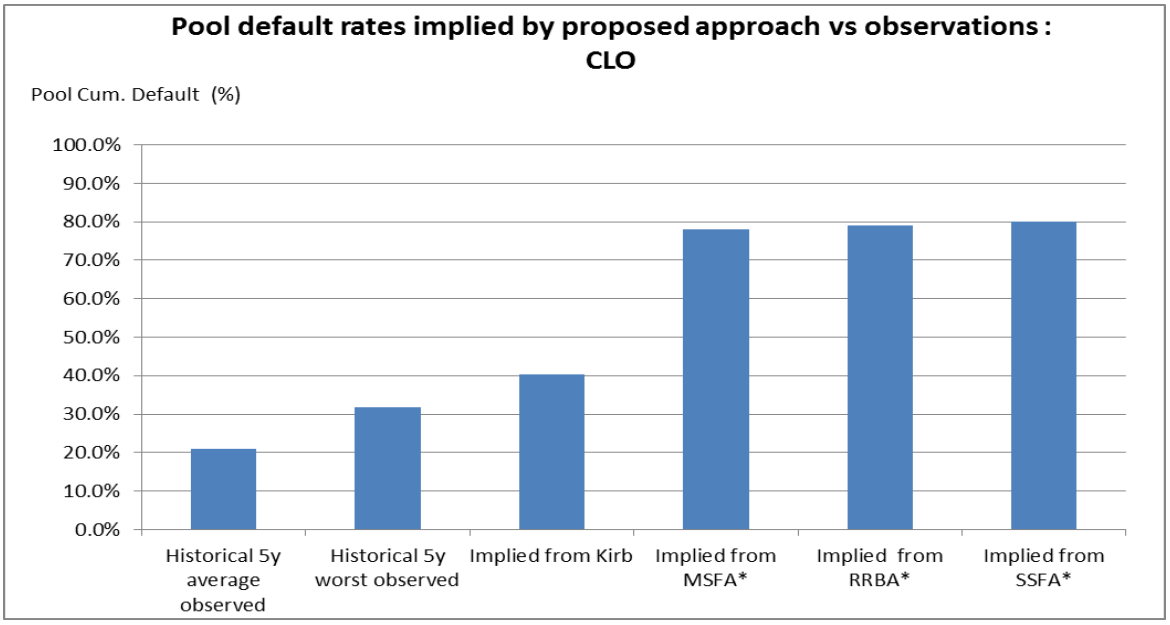
French SME	Ratings	Attachment	Thickness	RBA	MSFA	uncapped	SSFA	uncapped	RRBA (A)	uncapped	BCRA	uncapped	MSFA	uncapped	SSFA	uncapped	RRBA (B)	uncapped	BCRA
Tranche S	BBB (*)	6.1%	93.9%	60.0%	72.5%	**83.4%**	100.0%	**184.9%**	100.0%	**203.4%**	100.0%		72.5%		72.5%		72.5%		100.0%
Mezzanine	BB (*)	3.5%	2.6%	425.0%	1243.3%		1250.0%		1250.0%		1250.0%		1187.3%		1187.3%		1187.3%		1250.0%
Equity	NR	0.0%	3.5%	1250.0%	1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%
Ratio: RWA/Pool RWA				1.11	2.09	**2.24**	1.70	**2.50**	1.70	**2.67**	1.70		2.07		2.07		2.07		1.70
CLO Corporate High grade	**Ratings**	**Attachment**	**Thickness**	RBA	MSFA	uncapped	SSFA	uncapped	RRBA (A)	uncapped	BCRA	uncapped	MSFA	uncapped	SSFA	uncapped	RRBA (B)	uncapped	BCRA
Tranche S	BBB (*)	4.6%	95.4%	60.0%	45.9%		95.1%	**189.0%**	95.1%	**203.4%**	95.1%		51.7%		51.7%		51.7%		95.1%
Mezzanine	CCC (*)	0.5%	4.1%	1250.0%	1227.9%		1250.0%		1250.0%		1250.0%		1124.7%		1124.7%		1124.7%		1250.0%
Equity	NR	0.0%	0.5%	1250.0%	1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%
Ratio: RWA/Pool RWA				1.21	2.01		1.56	**2.50**	1.56	**2.64**	1.56		2.04		2.04		2.04		1.56
CLO US pre crisis	**Ratings**	**Attachment**	**Thickness**	RBA	MSFA	uncapped	SSFA	uncapped	RRBA (A)	uncapped	BCRA	uncapped	MSFA	uncapped	SSFA	uncapped	RRBA (B)	uncapped	BCRA
A-1L	AAA	26.8%	73.2%	7.0%	119.4%		99.0%		58.0%		133.4%		119.4%		99.0%		58.0%		133.4%
A-2L	AA	21.0%	5.7%	15.0%	1095.5%		550.3%		258.1%		997.1%		990.7%		990.7%		990.7%		997.1%
A-3L	A-	16.9%	4.1%	35.0%	1250.0%		746.3%		473.7%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%
B-1L	BBB	11.2%	5.7%	75.0%	1250.0%		1015.4%		634.9%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%
B-2L	BB	8.6%	2.7%	425.0%	1250.0%		1245.2%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%
PREF	NR	0.0%	8.6%	1250.0%	1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%
Ratio: RWA/Pool RWA				0.98	1.82		2.49		1.90		3.13		1.80		1.73		1.60		3.13
CLO US post crisis	**Ratings**	**Attachment**	**Thickness**	RBA	MSFA	uncapped	SSFA	uncapped	RRBA (A)	uncapped	BCRA	uncapped	MSFA	uncapped	SSFA	uncapped	RRBA (B)	uncapped	BCRA
A	AAA	37.7%	62.3%	7.0%	20.9%		68.9%		58.0%		140.7%		20.9%		68.9%		58.0%		140.7%
B1	AA	31.6%	6.1%	15.0%	416.5%		314.1%		255.5%		745.6%		667.8%		667.8%		667.8%		745.6%
B2	AA	25.5%	6.1%	15.0%	778.5%		451.8%		255.5%		890.5%		797.6%		797.6%		797.6%		890.5%
C	A	20.3%	5.2%	20.0%	1096.9%		630.5%		398.1%		1105.3%		990.0%		990.0%		990.0%		1105.3%
D	BBB	15.4%	4.9%	75.0%	1249.9%		848.7%		652.3%		1250.0%		1242.0%		1242.0%		1242.0%		1250.0%
E	BB-	10.4%	5.0%	650.0%	1250.0%		1132.7%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%
F	NR	8.4%	2.0%	1250.0%	1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%
SUBORD	NR	0.0%	8.4%	1250.0%	1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%
Ratio: RWA/Pool RWA				1.23	1.84		2.49		2.22		3.55		1.89		2.03		2.00		3.55
Benelux RMBS 1	**Ratings**	**Attachment**	**Thickness**	RBA	MSFA	uncapped	SSFA	uncapped	RRBA (A)	uncapped	BCRA	uncapped	MSFA	uncapped	SSFA	uncapped	RRBA (B)	uncapped	BCRA
A	AAA	8.3%	91.7%	7.0%	**17.0%**	**20.0%**	**20.0%**		35.0%	**58.0%**	35.0%		**17.0%**	**20.0%**	**20.0%**		35.0%	**58.0%**	35.0%
B	AA+	6.9%	1.4%	15.0%	150.9%		400.5%		216.8%		843.4%		204.3%		204.3%		204.3%		843.4%
C	A	4.4%	2.5%	20.0%	305.8%		643.6%		414.7%		1014.5%		245.8%		245.8%		245.8%		1014.5%
D	BBB+	1.6%	2.8%	50.0%	698.7%		1129.7%		573.8%		1250.0%		385.4%		385.4%		385.4%		1250.0%
E	NR	0.0%	1.6%	1250.0%	1228.6%		1250.0%		1250.0%		1250.0%		1059.9%		1059.9%		1059.9%		1250.0%
Ratio: RWA/Pool RWA				0.82	4.07	**4.25**	2.62		2.33	**2.93**	3.55		3.30	**3.48**	3.48		4.35	**5.68**	3.55
Italian SME	**Ratings**	**Attachment**	**Thickness**	RBA	MSFA	uncapped	SSFA	uncapped	RRBA (A)	uncapped	BCRA	uncapped	MSFA	uncapped	SSFA	uncapped	RRBA (B)	uncapped	BCRA
A	AAA	36.5%	63.5%	7.0%	**20.0%**		21.9%		58.0%		100.0%		**20.0%**		21.9%		58.0%		100.0%
B	NR	0.0%	36.5%	1250.0%	332.1%		646.7%		771.6%		547.9%		202.7%		202.7%		202.7%		547.9%
Ratio: RWA/Pool RWA				4.61	1.88		2.50		3.18		2.64		1.22		1.23		1.56		2.64
UK RMBS	**Ratings**	**Attachment**	**Thickness**	RBA	MSFA	uncapped	SSFA	uncapped	RRBA (A)	uncapped	BCRA	uncapped	MSFA	uncapped	SSFA	uncapped	RRBA (B)	uncapped	BCRA
Class-A	AAA	18.2%	81.8%	7.0%	**11.4%**	**20.0%**	**20.0%**		35.0%	**58.0%**	35.0%		**11.4%**	**20.0%**	**20.0%**		35.0%	**58.0%**	35.0%
Class-M	AA	14.7%	3.5%	15.0%	20.0%		49.6%		274.3%		384.2%		62.4%		62.4%		62.4%		384.2%
N	A+	13.2%	1.5%	18.0%	20.0%		87.7%		373.4%		475.2%		77.2%		77.2%		77.2%		475.2%
B	NR	0.0%	13.2%	1250.0%	277.6%		628.3%		1250.0%		529.1%		85.9%		85.9%		85.9%		529.1%
Ratio: RWA/Pool RWA				4.91	4.39	**5.05**	2.93		5.98	**6.51**	3.40		2.24	**2.90**	2.90		4.05	**5.80**	3.40
Benelux RMBS 2	**Ratings**	**Attachment**	**Thickness**	RBA	MSFA	uncapped	SSFA	uncapped	RRBA (A)	uncapped	BCRA	uncapped	MSFA	uncapped	SSFA	uncapped	RRBA (B)	uncapped	BCRA
A	AAA	6.7%	93.3%	7.0%	13.1%	**20.0%**	**20.0%**		21.0%	**58.0%**	21.0%		13.1%	**20.0%**	**20.0%**		21.0%	**58.0%**	21.0%
B	BBB	2.0%	4.7%	75.0%	334.0%		650.3%		657.2%		629.7%		195.9%		195.9%		195.9%		629.7%
Reserve Fund	NR	0.0%	2.0%	1250.0%	1083.3%		1250.0%		1250.0%		1250.0%		653.3%		653.3%		653.3%		1250.0%
Ratio: RWA/Pool RWA				1.67	4.07	**4.60**	3.53		3.59	**5.23**	3.52		2.83	**3.37**	3.37		3.44	**6.29**	3.52
French Auto	**Ratings**	**Attachment**	**Thickness**	RBA	MSFA	uncapped	SSFA	uncapped	RRBA (A)	uncapped	BCRA	uncapped	MSFA	uncapped	SSFA	uncapped	RRBA (B)	uncapped	BCRA
A	AAA	21.7%	78.3%	7.0%	**20.0%**		25.2%		36.1%		75.0%		**20.0%**		25.2%		34.0%		75.0%
B	NR	1.5%	20.2%	1250.0%	151.3%		739.6%		1089.3%		692.0%		105.7%		105.7%		105.7%		692.0%
Reserve Fund	NR	0.0%	1.5%	1250.0%	1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%
Equity	NR	0.0%	0.0%	1250.0%	1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%		1250.0%
Ratio: RWA/Pool RWA				3.69	3.80		2.50		3.56		2.89		3.26		3.50		3.90		2.89
US Subprime RMBS	**Ratings**	**Attachment**	**Thickness**	RBA	MSFA	uncapped	SSFA	uncapped	RRBA (A)	uncapped	BCRA	uncapped	MSFA	uncapped	SSFA	uncapped	RRBA (B)	uncapped	BCRA
A	CCC	24%	76.2%	1250.0%	549.9%	**688.4%**	70.0%	**358.5%**	70.0%	**568%**	70.0%		549.9%		549.9%		549.9%		70.0%
B	NR	0%	24%	1250.0%	1250.0%		1227.3%		999.1%		589.0%		1250.0%		1250.0%		1250.0%		589.0%
Ratio: RWA/Pool RWA				17.86	1.73	**1.99**	4.93	**8.07**	4.15	**9.58**	2.76		1.73		1.73		1.73		2.76

(*) rating estimated only for purpose of calculating impact under proposed method

Annex 1

CLO: Octagon Investment Partners XII

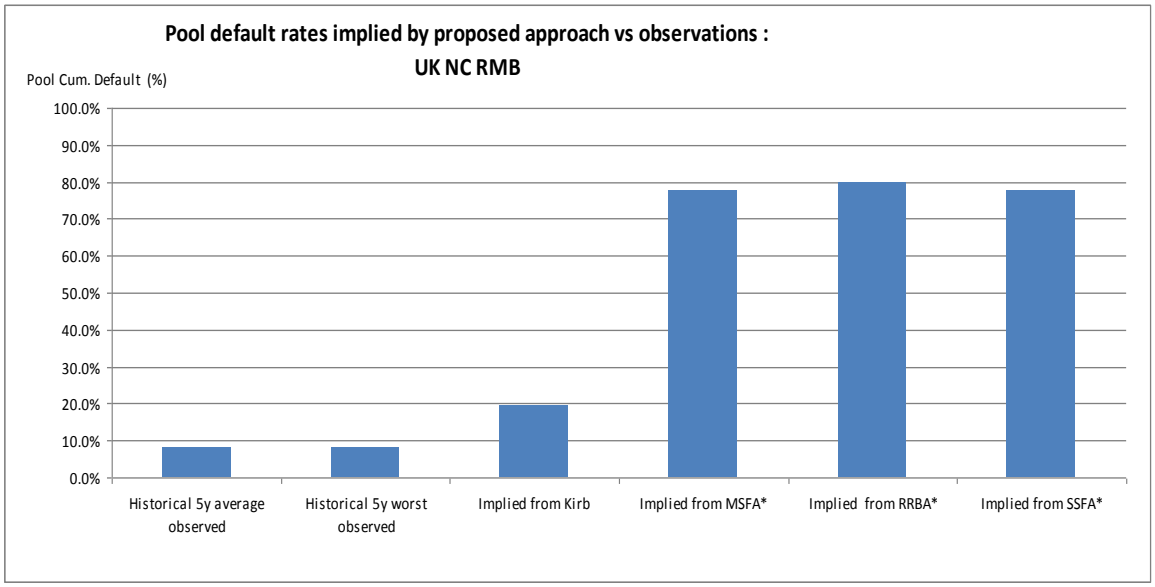
Loss Given Default (LGD): 51%, Conditional Prepayment Rate (CPR): 15%



*Pool default implied by having senior tranche loss equal to proposed capital

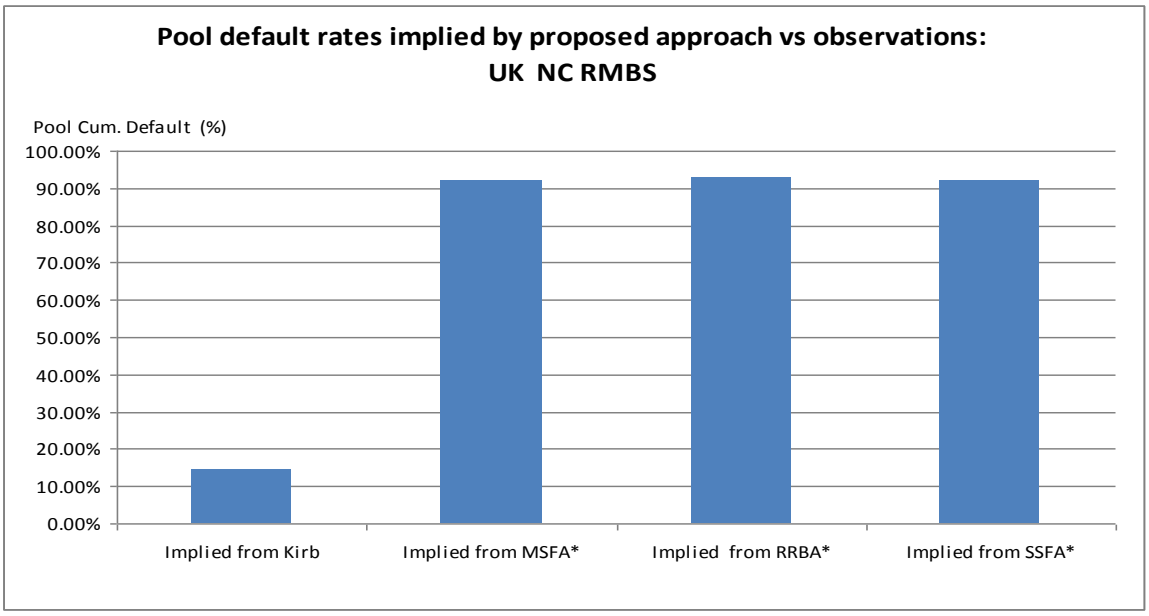
UK NC RMBS: RMAC Securities No. 1 Series 2006-NS2

(LGD: 34%, CPR: 0%)



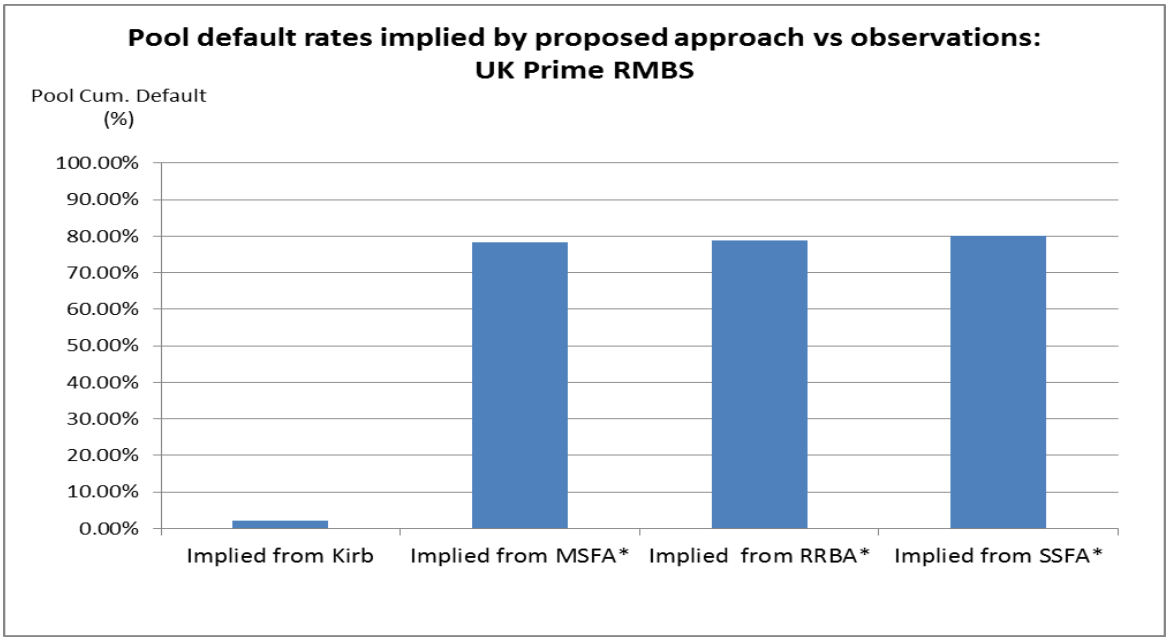
*Pool default implied by having senior tranche loss equal to proposed capital

UK Non Conforming RMBS: Residential Mortgage Securities 25
(LGD: 31 %, CPR: 0%)



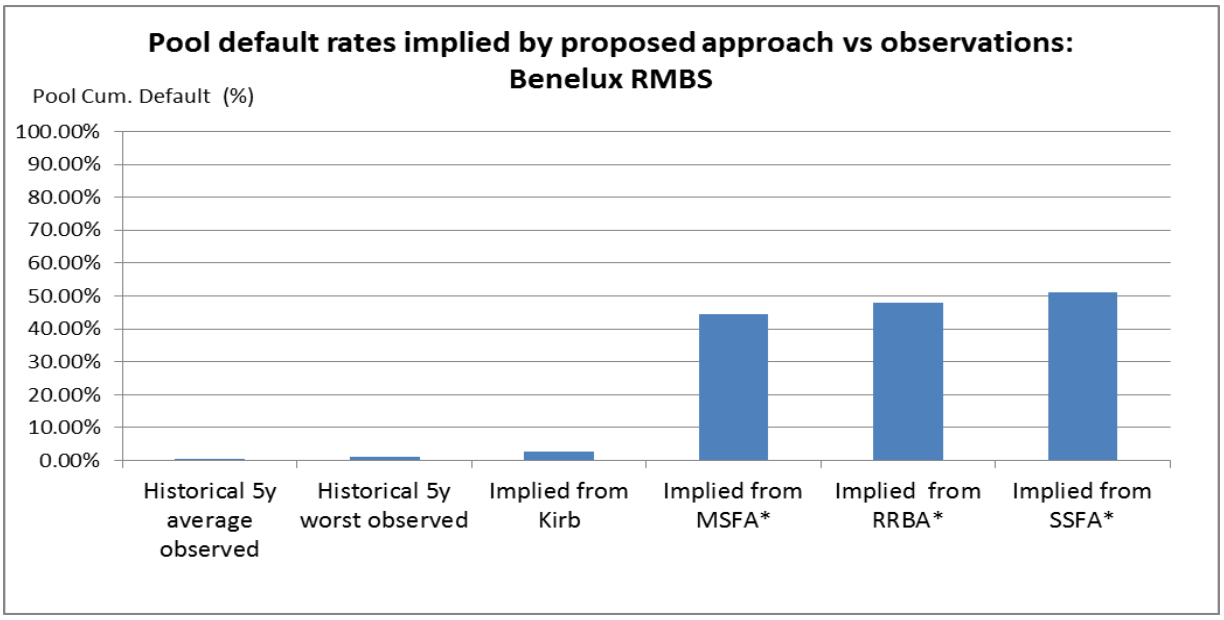
*Pool default implied by having senior tranche loss equal to proposed capital – Floor reached

Arran Residential Mortgages Funding 2010-1 UK Prime
(LGD:22%,CPR:0%)



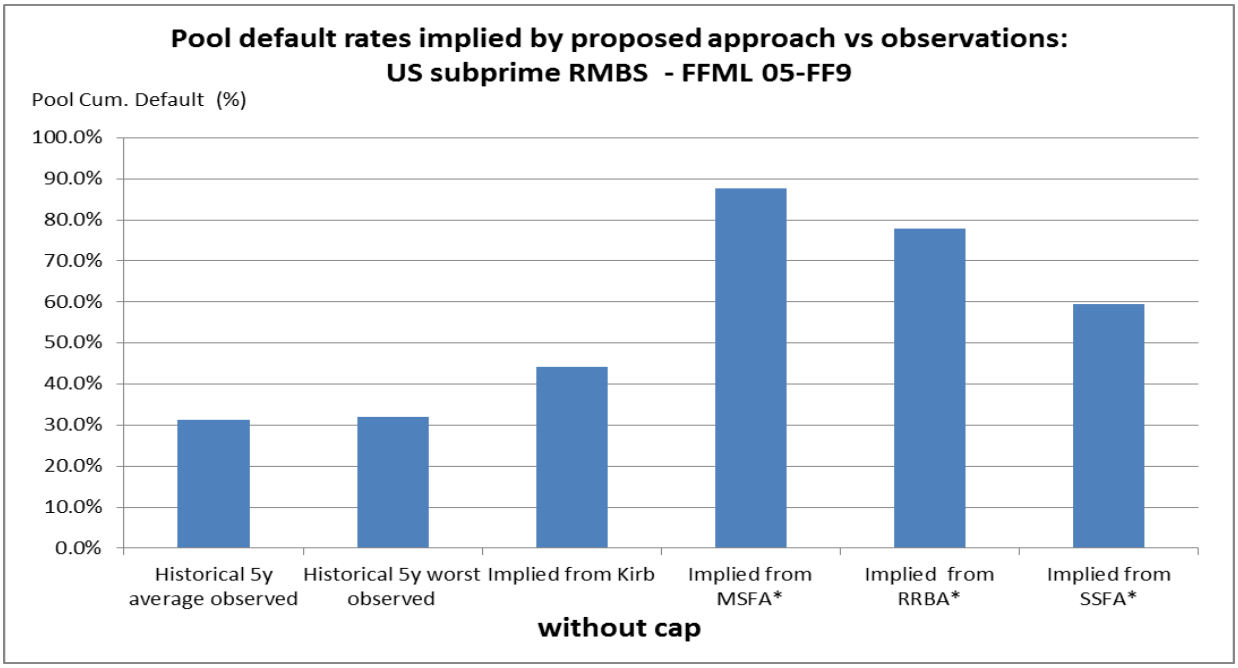
*Pool default implied by having senior tranche loss equal to proposed capital – cap and floor reached

Holland Mortgage Backed Series (HERMES) XVI B.V.
(LGD: 22.45%, CPR: 0%)

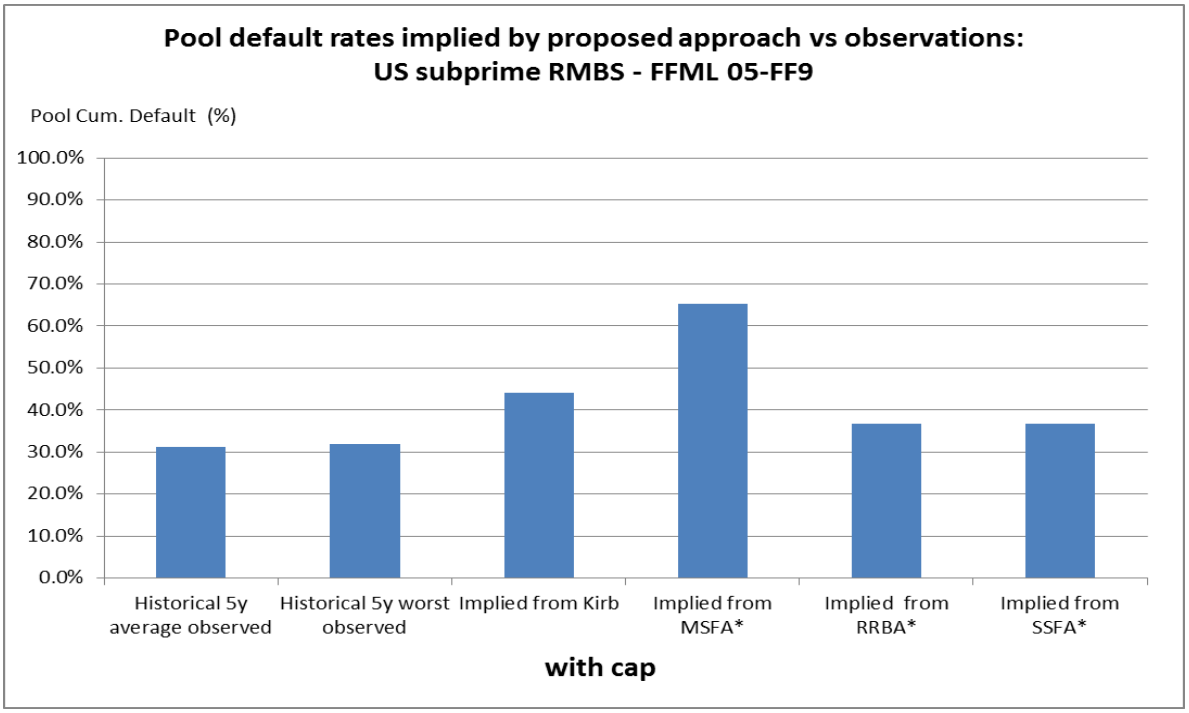


*Pool default implied by having senior tranche loss equal to proposed capital – Cap and Floor reached

US subprime RMBS First Franklin Mortgage Loan Trust 2005-FF9
(LGD: 75.09%, CPR: 0%)



*Pool default implied by having senior tranche loss equal to proposed capital



*Pool default implied by having senior tranche loss equal to proposed capital – cap reached

Annex 2

- Focus on Asset-backed commercial paper ('ABCP') conduits -

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Introduction

Cash securitisation is sometimes a simple tool for banks to provide financing for a wide range of clients and assets. Using conservatively-sized credit enhancement, ABCP programs enable banks to extend low-risk secured financing to their clients, and clients to monetize their assets rather than depend solely on their credit status to raise financing. The tranching technique used here by the securitisation process enables banks to leave most foreseeable credit risk with the originator of the assets and play their traditional role of transferring funding to the real economy. The quality of the credit enhancement is always dependant on a thorough analysis of the underlying assets.

Assets financed in ABCP conduits are of good quality, essentially trade and auto loans /leases receivables. Because no public data are available on trade receivables, some statistics collected on French banks' European ABCP conduits have been added in this document to highlight the quality of this type of asset. The performance data of trade receivables securitisations financed by French banks' multi-seller conduits demonstrate the quality and resilience of credit enhancement provided to these conduits. No losses have ever been registered by French banks in relation to trade receivables securitisation transactions financed through their ABCP conduits. Securitisation structures highly mitigate risks on the portfolio and on the sellers.

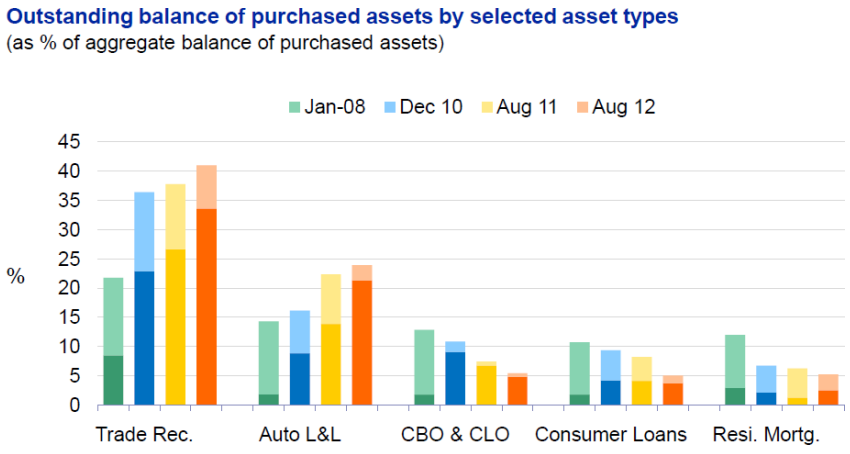
Current regulatory capital immobilized by these transactions already seems to exceed that warranted by their level of risk. That is why we would like to express our deep concerns about the impact that the new securitisation framework proposed by the Committee would have on these transactions.

1. Banks' clients Working Capital funding in ABCP conduits

1.1. Assets Financed

The assets funded in ABCP conduits are simple assets of good quality and short term pretty much like those we can find in factoring activity. The main part of the underlying assets, funded in multi seller ABCP conduit in EMEA, is trade and auto receivables (66%). These assets are not very risky, but in order to be sure the bank which provides the funding does not take risk with the liquidity facility, the credit enhancement is calibrated in a very conservative way following rating agencies criteria (see S&P methodology for trade receivables).

When looking at the graph below, we can see that short term assets share is increasing for ABCP conduits since 2008, whereas other asset types with longer maturity (CLO, Consumer loans and Residential Mortgages) see their share decreasing.



Source: Moody's

1.2. Amounts Financed

Multi-seller ABCP Conduits provide European corporates with a sustainable and resilient funding alternative to borrowing directly from banks. At 3Q 2012, the outstanding of multi-seller ABCP conduits was around 225 B.USD on a worldwide basis, and 44 B.USD in EMEA.

Doing a focus on Trade receivables and more precisely on data collected by French banks for the portion of their sponsored ABCP programmes on Trade Receivables, we can show

that the cumulated amount of transferred receivables for the last 3 years is around 224 Billion EUR. This amount represents a significant source of working capital for French Banks clients, mainly corporates, available each month and provided *in fine* by ABCP investors.

1.3. Overview of ABCP conduit market

Today, the ABCP market comprises mainly of plain vanilla, traditional multi-seller conduits. Gone are the days when the market included more-sophisticated structures such as SIVs (see differences between SIVs and multi-seller conduits below) or securities arbitrage conduits. Although there are some securities arbitrage programs still outstanding, most are in the process of winding down as they let their securities run off. These are securities such as RMBS, CMBS, and CDOs, which most sponsors/investors would rather not continue to fund. Indeed, based on data published by JP Morgan, the global outstanding of ABCP conduits is around 300 Bn USD, 75% of the ABCP market as per 3Q 2012 comprises multi-seller conduits sponsored by banks or independent companies versus 54% as per 2Q 2007 — a reflection of investors' preference for this type of structure.

Breakdown of ABCP market

	2Q 2007		3Q 2012		Chg	
	$bn	%	$bn	%	$bn	%
Total ABCP outstanding	**1200**	**100%**	**300**	**100%**	**-900**	**-75%**
Bank sponsored multi-seller	468	39%	201	67%	-267	-57%
Independent sponsored multi-seller	180	15%	24	8%	-156	-87%
Single-seller	72	6%	15	5%	-57	-79%
Securities arbitrage	228	19%	60	20%	-168	-74%
SIV / SIV-lites	72	6%	N/A	N/A	-72	-100%
Extendible mortgage	72	6%	N/A	N/A	-72	-100%
CDO	60	5%	N/A	N/A	-60	-100%
Hybrid	48	4%	N/A	N/A	-48	-100%

Source: J.P. Morgan as of September 30, 2012

Multi-seller ABCP Conduits:

- have a 30 year operating history;
- are backed by high quality, liquid assets, subject to a borrowing base and (usually dynamic) credit enhancement which structurally limits unscheduled draws by capping the maximum allowable draw, and incrementally haircutting those draws by defaulted receivables and stressed multiples of other adverse portfolio trends;
- fund the real economy (for example, trade receivables, auto and consumer loans with good performance);
- are supported by sponsor banks; and
- are relied upon by customers as a significant source of working capital.

Differences with SIVs :

Contrary to SIVs, multi-seller ABCP conduits have weathered the crisis very well, first because they were differently structured (with bank liquidity lines covering 100% of the outstanding CPs), and second because they were (and are) financing real economy assets with direct access to the sellers, which enables asset performance transparency and favours dialogue for potential restructuring when necessary. During the subprime and the Lehman crises, multi-seller ABCP conduits did not exhibit the same illiquidity as SIVs and arbitrage programs. And at the time of the Euro sovereign debts crisis in 2011, multi-seller ABCP conduits evidenced stronger resilience. An important reason for this is that these products have had sound underwriting practices.

SIVs and arbitrage conduits	ABCP Conduits
Held long term financial assets, such as bonds	Fund short term trade receivables which are typically less than 90 days in tenor (with the vast majority shorter than 30 days), as well as other shorter term borrowing such as auto or consumer loans.
Funding need (and liquidity risk) at or close to maximum utilization as most SIVs were fully "ramped up"; they were highly dependent on financial market conditions	Funding need dependent on day-to-day financing needs of customers, namely whether business is good and a high volume of receivables is generated, or business is poor and a low volume of receivables is generated. Not systemic financial risk.
Proved to be illiquid under stress: short-term funding dried up, assets returned to banks' balance sheets or liquidity drawn, no market for sale of the underlying long term financial assets	Proved to be relatively liquid under stress: short term funding was less affected, some limited liquidity drawings, underlying assets were "real economy", short term and self-liquidating
Liquidity backup was dependent on financial market conditions: if there was no market for the assets, then liquidity was drawn	ABCP can be issued and liquidity put at risk of drawing only if good quality receivables are presented to the ABCP Conduit for funding. No receivables = No liquidity drawings or issuance of ABCP
Underlying assets performed poorly in credit and market terms: US sub-prime RMBS, US home equity loans, CDOs	Underlying assets were from the "real economy"; have performed and continue to perform well and within tolerances
Mis-used SSPE technology to exacerbate leverage and concentration of risk within the financial system	Well-established traditional use of SSPE technology to complement bank funding and share risk with capital markets investors
No longer active: no investor appetite and new regulations prevent re-emergence	Struggling to cope with new liquidity rules: some conduits have been closed because of the new liquidity rules

(Source: AFME)

2. Why ABCP conduit is a good funding tool for trade receivables?

ABCP conduit consents to issue short term maturity commercial paper to match short maturity of trade receivables (around 45 days). Fund short term receivables with medium or long terms notes increase risks and costs for both clients and banks.

A securitization of trade receivables provided a stable funding to the corporate. It's a strong secured funding for banks and, sometimes, the only way for banks to provide also to low

credit quality corporate: risks on the assigned receivables is covered by a credit enhancement which highly cover the historical losses and any risk on the sellers are strongly mitigated by several mechanism. That's why final risk taken by banks is very limited and methodology to size the RWA consumption in front of such type of transaction shall take in consideration all protections of which the Banks benefit.

2.1. For clients

- Diversification of financing through access to ABCP markets
  - Access to market financing for unrated clients
  - Diversification away from traditional market financing e.g. corporate bonds
- Access to a broader investor base
  - Investors in various jurisdictions: an ABCP conduit can be structured to issue paper in several markets. Conduits sponsored by French Banks can issue in the Euro CP, French Billet de Trésorerie and USCP markets for the financing of a same transaction
  - More generally, access to a category of investors that clients would not necessary be able to tap individually (because of size, rating, location…)
- Efficient funding tool for short term assets: ABCP funding adapts to amounts of receivables' revolving sales thus to actual seasonal funding needs. This prevents negative carry compared to other market funding sources
- Efficient price for a medium-term funding tool as the structure (see below) is de-correlated from the client's corporate risk
  - Strong mitigation against corporate risk currently enables favorable treatment in capital charge, which also reflects in pricing for the client

2.2. For sponsor banks

As evidenced in part 1.1, the majority of outstanding and most of the conduit's new business is backed by trade receivables or other short term assets that benefit from most of the following very strong structural features:

- Short term maturity of assets, as low as 45 to 60 days typical average life for trade receivables
- Stop purchase events typically provide for automatic early termination in case of risk deterioration. Among others, they typically relate to risks on the originator or on the portfolio (through asset performance triggers).
- Dynamic credit enhancement: every month, the asset portfolio's performance is systematically reviewed and the level of appropriate protection is recalculated, i.e. immediately increases the protection in case risk deteriorates ;
- Credit quality of the Notes purchased by the conduit retains the same level throughout the lifetime of the transaction
- Purchase of new receivables can only occur if correct amount of credit enhancement provides protection in front of the portfolio
- High level of protection ensures loss in the portfolio only represents a small fraction of the credit enhancement (see part 4).
- Strong mitigation against corporate risk currently enables favorable treatment in terms of global exposure on the client; it is also reflected in very competitive total cost for the client.

2.3. For investors

- ABCP Conduits have diversified portfolios of assets.
- Asset pools have high credit ratings and multiple levels of protection.
- ABCP can be issued in multiple maturities (under 364 days), in various currencies on different markets.
- The CPs are priced at relevant level according to maturities of issuance.
- The investors benefit from the liquidity support of the conduit sponsor (through the liquidity support the banks support a senior risk on the transaction).
- The program issuers can offer high level of transparency and disclosure regarding performance of the underlying assets.
- Trade receivables constitute an asset class that is particularly favored by investors who appreciate its excellent historical performance, the good granularity of the underlying pools and the transparency of the structures (straightforward access to the assets).

ABCP have proven to be a very efficient tool to finance short term client assets such as trade receivable. It provides access to various markets that clients could not necessarily reach by themselves. Through a very strong structuring which limit or reduce to zero any risk on the corporate who receives the funding, including dynamic credit enhancement, the credit risk is remote, as illustrated in part 3. The investors show a real appetite even in difficult periods, as they value the strength of the structuring and the diversification. The strength of the structuring and the very remote credit risk is recognised today as capital charge is low, enabling the clients to benefit from a very competitive price.

Failing to recognise this low risk in corresponding very low capital charge will have a direct consequence: more capital will immediately increase the price for the clients.

In some cases, as demonstrated in Part [3.1] below, capital applied to trade receivable transaction could be higher than if bank were lending on an unsecured basis to the corporate. In those circumstances, it is obvious that a structure transaction would no longer make sense, and the client would borrow unsecured, increasing the final risk for the banks sector.

3. Impact of BCBS proposed treatment on ABCP activity

3.1. Risk weight inconsistency: unsecured lending vs. senior securitization tranche exposure

ABCP is widely used as a corporate financing tool, programs being in majority backed by trade receivables.

The implementation of the consultative document's revised framework results in a significant distortion between direct unsecured lending and financing via ABCP and has a major negative impact on the economics of such transactions.

See below the RW calculation results from the present framework compared with those from the revised framework applied to a trade receivables 100 M.EUR ABCP program financing a French corporate and rated AA- internally (IAA methodology). In this case we consider that MSFA / SSFA cannot be used since underlying debtors being SME and assets trade receivables., Kirb or Ksa calculation is not always possible due to the fact that data needed to assess a PD+LGD for each underlying asset is not available or sufficient for this asset class [8].

	Liquidity line exposure	**EAD**	**Approach**	**RW**	**RWA**
current framework (Basel 2.5)					
IAA	100	100	IAA	8%	8.5
revised framework (Basel 3)					
Alternative A					
R-RBA/IAA allowed	100	100	IAA	61%	64.7
R-RBA/IAA not allowed	100	100	deduction	1250%	1 325.0
Alternative B					
senior high quality (*)	100	100	IAA	61%	64.7
senior but not high quality (*)	100	100	deduction	1250%	1 325.0

(*) depending on the definition of a senior, high-quality securitisation exposure

- Significant cost of risks increase: minimum impact would be 7.6 fold the present RW level.
- Risk weight distortion: depending on alternative / methodologies implemented in the jurisdiction, impacts in terms of RW might differ widely, whereas the credit risk for the liquidity banks is the same.
- Risk weight inconsistency:
    i. when compared to an unsecured loan with the same maturity (1Y) to a corporate (LGD=39%) (see below 3.2);

[8] Unless "top down" methodology is approved for portfolios with assets of this type and results.

ii. because assets performance resilience, combined with the dynamic credit enhancement mechanism, which adjusts the protection when / if the performance deteriorates, is not taken into account.

Differences between the results from the current RBA methodology and those from the proposed methodologies are very similar.

3.2. Consequences: ABCP financing shrink; higher costs for borrowers or banks.

As shown in the chart below, an exposure – through a liquidity facility extended to an ABCP program arranged for a corporate - on a senior AA- securitization tranche will bear more RW than a plain unsecured loan to the same corporate except if the borrower is rated BB or below. An exposure to a senior securitization tranche rated A- will only bear less RW than an unsecured loan to B+ or below B+ rated corporate borrowers !

Consequences, a mix of the following:

- with financing conditions for unsecured lending being equal to or lower than those for a securitization , banks and borrowers will dispend from the later in order to avoid the costs, work and time consumption associated with it;
- borrowers will have to bear much higher costs of financing when banks will judge specific unsecured lending not acceptable;
- for the remaining securitisation transactions, an increase of the costs around 2.5 to 3.5 times should be charged to the seller to compensate the increase of capital charge required for banks;
- banks will have to book loss making transactions when implied higher costs will not be acceptable to core customers.

Comparaison pour la titrisation ABCP des RW% pour une titrisation vs financement bilatéral

client français corporate - LGD=39% - Mat=1Y

Rating Client	RW irb%
AAA	6.6%
AA+	6.6%
AA	6.6%
AA-	6.6%
A+	6.6%
A	11.1%
A-	11.1%
BBB+	22.4%
BBB	33.6%
BBB-	49.8%
BB+	55.7%
BB	69.7%
BB-	81.5%
B+	114.3%
B	114.3%
B-	163.9%
CCC+	193.2%
CCC	193.2%
CCC-	193.2%
CC	193.2%
C	193.2%

tranche titrisation conduit IAA senior granular pour des TR (DSO = 90j)

mat = 1Y

Rating Titri	current IAA/RBA	Revised RBA
AAA	7%	20.0%
AA+	8%	32.4%
AA	8%	51.1%
AA-	8%	60.9%
A+	10%	71.0%
A	12%	81.3%
A-	20%	93.5%
BBB+	35%	105.6%
BBB	60%	117.5%
BBB-	100%	135.6%
BB+	250%	153.1%
BB	425%	169.8%
BB-	650%	209.9%
B+	1250%	261.8%
B	1250%	320.5%
B-	1250%	388.6%
CCC+	1250%	472.3%
CCC	1250%	472.3%
CCC-	1250%	472.3%
CC	1250%	1250.0%
C	1250%	1250.0%

4. Proposition

Trade receivables in particular form an asset class in which banks have a longstanding experience in structuring securitization transactions for corporates in Europe and North America. To illustrate the very good performance of this asset class and the related securitization structures, we have conducted an historical analysis among French banks.

The perimeter of the study covers all the trade receivables securitizations that have been financed in our conduits (including those already terminated) for which detailed relevant performance information was easily accessible.

This covers a total of 438 Billion Euros of purchased trade receivable.

A total of 83 transactions have been included and their performances analysed on a monthly basis, back to 1999 for the oldest.

The key outcomes are as follows:

None of the banks in this perimeter have ever suffered any loss in any of those trade receivable deals.

We analysed each of the deals, on a monthly basis, to assess default risk on the portfolio on the one hand, and protection provided (by the loss reserve and by the total credit overcollateralization) on the other hand.

Those transactions are all revolving, i.e. we purchase additional receivables (and reconstitute overcollateralization) each month. Then the relevant question risk wise is to assess, if each and any transaction ceases to revolve, whether or not the cumulative defaults during the amortization period will be covered by enough overcollateralization.

The average DSO is usually between 45 and 90 days for those transactions.

We have back tested all of those deals, **each month**, by cumulating the actual defaulted receivables over a 3 month period, and compare them with the protection available. We thus back-tested a total of over 3000 situations.

The outcome is summarized in the table below:

Percentile	Max (Sum of 3M flow of write-off / relevant Loss reserve)	Max (Sum of 3M flow of write-off / relevant CE)
60%	0.8%	0.5%
70%	2.4%	0.9%
80%	4.5%	2.4%
90%	17.7%	6.1%
95%	22.1%	9.4%
98%	30.7%	14.8%
99%	36.8%	22.6%
100%	42.4%	26.7%

Those results are self-explanatory: in 95% of the times, the cumulated defaults did only consume 22.1% of loss reserve, or 9.4% of overcollateralization.

In the worst case scenario (1 deal, and only during 1 three month period out of the over 3000 situations back-tested), only 26.7% of overcollateralization was consumed. In other words, in the worst case scenario, banks did not even come close to suffering a loss, as the available protection could have absorbed losses higher by 374%.

With a total of 438 billion of purchase receivables, covering of the years during the crisis, this analysis is reliable and very representative of the actual strength of protection. This demonstrated how secure those trade receivables transactions are.

4.1. New floor for Trade receivables

Senior tranches in traditional asset pools financed through multi-seller conduits have demonstrated performances that happen to be much better than a uniform capital floor at 20% for all asset classes would suggest.

As we have seen, the proposed uniform RW floor at 20% is not risk-sensitive and in the specific case of Trade receivables financed by multi-seller conduits, is incommensurately higher than the risk taken by banks in such securitization exposures. Backed by our 15 year performance experience, illustrated by this analysis, we believe that there is no reason to increase the current floor of 7% for trade receivable. Performance analysis and risk back testing suggest that if the floor was to be changed, it should actually be reduced rather than increased.

This also suggests that it is much more relevant to calibrate the floor by asset class.

4.2. Maturity definition to be reviewed for Trade Receivables

In trade receivables securitizations, the credit enhancement is systematically dynamic and consists in the replenishment of reserves to the level required by the structure every time new receivables are transferred during the revolving period.

Given this dynamic feature, a good proxy of the default time horizon in a trade receivables pool is the average delay between the issuance of an invoice and its collection by the corporate, i.e. the DSO (Days Sales Outstanding) that typically range between 40 and 60 days. Therefore, the maturity introduced in the proposed formulas as a number of years is overly conservative and does not recognize the very short term nature of Trade receivables.

Besides, in the case of the IAA, the maturity parameter used in the RRBA duplicates the maturity already taken into account when producing internal ratings: this double-counting unnecessarily penalizes RW outputs.

Altogether, this calls for an in-depth review of the maturity concept in the RRBA.

For trade receivables programmes, we consider that the maturity should be equal to the maximum DSO[9] of the pool.

[9] Day Sales Outstanding is a calculation used to estimate the average collection period of receivables by a company.

4.3. Recalibrate the RW formulas

4.3.1. Allow banks to use aggregated data on the pool to calculate Kirb

As explained in part 3, it is not always possible to calculate Kirb or Ksa for trade receivables assets, since data needed to do the calculation (internal methods to assess the risk on receivables, rating…) are not always available. Indeed for this kind of deals, structuring teams often monitor risks using triggers at aggregated levels, and individual data are not really followed by the bank. That's why the majority of French banks developed Internal models (IAA) to rate these deals.

For that reason we think, that in order to allow the use of Regulatory Formulas (MSFA, SSFA…) to calculate the RW for banks which do not use internal models, the regulator should enable banks to use aggregated risk data for these deals to calculate a Kirb of the pool.

4.3.2. R-RBA calibration should be reviewed

When an internal model is available to rate the transaction, we think that IAA should be available whatever the jurisdiction is and at the top of the hierarchy. The IAA is subject to supervisory approval and strict operational requirements, including the use of bank risk management processes based on the most conservative elements of publicly available CRA methodologies. Therefore, IAA provides a sound basis for banks to determine risk weights of securitisation exposures, including all structuring features (legal structure strength, cash flow protections, quality of assets servicing…).

IAA methodologies ultimately translate risk levels into rating equivalents, which are currently converted into regulatory weightings by using the RBA/R-RBA tables. If this method of conversion remains, IAA weightings will be severely handicapped by the proposed R-RBA calibration

The R-RBA calibration with the MSFA model is based in the proposed text on a poor-quality underlying pool: B rating (one-year PD of 4.729%) and high LGD (60%). These are levels associated with unsecured high-yield bonds (a very small portion of securitized assets), and, as we have seen, it does not reflect the average quality of pools that French banks have experienced historically.

Using the assumptions provided by the Committee (*Working Paper 23*, paragraph 16), we calculate an expected loss corresponding to a AAA level for 1-year and 5-year pools, then estimate the attachment point for the corresponding senior AAA securitization tranche, and conclude by calculating the RW for this position under the MSFA formula, which is then proposed for the R-RBA calibration.

As the table hereafter demonstrates, using the same calibration methodology with higher quality assets (PD at 0.50%, LGD at 35%) would have yielded significantly lower RRBA weightings, which demonstrates that using a one-size-fits-all portfolio calibration is not appropriate and leads to an exaggerated weighting for most securitized assets, certainly those in ABCP conduits.

We would also like to point out that, even with a calibration reflecting the quality of the underlying pool, the 5-year weighting remains unduly high due to the new formula in the MSFA including capital to cover 5-year expected losses. Moreover, it is apparent to us that the calibration methodology seems to define attachment points that are below what internal models (taking into account many other structural aspects) would use for most portfolios of assets. Using model-based attachment points for the AAA tranche would yield an even lower RW.

		BCBS calibration		Other calibration	
	Maturity	**1**	**5**	**1**	**5**
Underlying Pool	PD	4.73%	4.73%	0.50%	0.50%
	LGD	60%	60%	35%	35%
AAA Tranche	Expected Loss	0.003%	0.032%	0.003%	0.032%
	Est. attachment pt	*19.0%*	*38.5%*	*5.0%*	*10.0%*
	RW: MSFA=>RRBA	**18%**	**58%**	**7%**	**27%**

Note on the analysis approach:

Expected loss on the tranche is computed thanks to Vasicek conditional loss closed formula. Super senior tranche (AAA rated) defaults on extreme loss scenario (LGD is then assumed to be correlated to default rates and thus is twofold the average pool LGD in these scenario). Tranche expected loss is then the expected shortfall (probability-weighted average of extreme losses).

4.3.3. Recalibration proposal for Trade Receivables

As shown specifically for trade receivables, the quality of underlying pools and the typically substantial enhancements experienced in conduit securitizations argue for a recalibration of the RRBA to avoid over-conservative assumptions which result in prohibitive capital outputs, and in turn jeopardize the efficient financing solutions provided by multi-seller ABCP conduits to answer working capital needs of corporates across Europe and North America.

We think that based on that, different levels of parameters should be calibrated for the use of R-RBA depending on the asset class.

Conclusion on ABCP issues

Our proposals for ABCP multi seller conduits and more precisely for Trade Receivables are:

1 - The methodologies based on the more detailed inputs and offering the more thorough analysis should have priority, when available and approved by regulators: IAA should be at the top of the hierarchy

2 - The risk-weight calibration should be risk-sensitive and reflect accurately the quality of the underlying portfolio of assets and the ample sizing of the dynamic credit enhancement

3 - When models are not available, banks should be allowed to use a regulatory formula (arbitrage-free if possible) based on portfolio-wide Kirb

4- Any floor should be more risk sensitive and adapted to the asset type. The current floor of 7% already seems more than adequate for most portfolios.

5 - The maturity for trade receivable transactions should be based on the DSO