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## **FRENCH BANKING FEDERATION RESPONSE TO BCBS CONSULTATION ON REDUCING VARIATION IN CREDIT RISK-WEIGHTED ASSETS – CONSTRAINTS ON THE USE OF INTERNAL MODEL APPROACHES**

The French Banking Federation (FBF) represents the interests of the banking industry in France. Its membership is composed of all credit institutions authorized as banks and doing business in France, i.e. more than 390 commercial, cooperative and mutual banks. FBF member banks have more than 38,000 permanent branches in France. They employ 370,000 people in France and around the world, and service 48 million customers.

**The FBF welcomes the opportunity to respond to the Basel Committee's consultation on constraints on the use of internal model approaches. Nevertheless, we do not endorse the proposals of the Committee as they currently stand. Our membership is indeed surprised by the content of the consultation paper which does not achieve the goals set by the GHOS (RWA comparability, simplicity, risk sensitivity and capital requirements neutrality), nor does it provide a sufficiently developed and thought-through Credit Risk weighting framework in which banks can operate. French banks reiterate their support to the use of internal models as the most risk-sensitive capital management tool, supported by robust historical data, reliable back-testing figures and extensive disclosures. The proposals of the Committee, if adopted in their current form, would entail a radical change in the risk weighted assets conceptual, modelling and behavioral framework, with a major impact for the banking industry and the funding of the European economy.**

**We are doubtful that such a major change be warranted, nor that it could realistically be decided in the short timeframe left for the finalization of the proposed framework due for end 2016. We warn that the Committee should not hastily validate a change of this magnitude without proper time for consensus building, iterations between jurisdictions and with the industry, and proper impact studies.**

## Summary

|                                                                                                                                                                    |           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1. Key messages .....                                                                                                                                              | 3         |
| 2. Executive summary of our main proposals.....                                                                                                                    | 7         |
| 3. Output floor .....                                                                                                                                              | 9         |
| 4. Scope of use of internal models (supporting IRB) .....                                                                                                          | 10        |
| a. Rationale for the use of internal models .....                                                                                                                  | 10        |
| i. Challenges in understanding which risks can be modelled .....                                                                                                   | 10        |
| ii. Misunderstanding of the primary source of model variability .....                                                                                              | 10        |
| iii. Harmonization of models should be envisaged before removing modelling opportunities.....                                                                      | 12        |
| iv. Data availability.....                                                                                                                                         | 12        |
| v. Combining risk sensitivity with comparability .....                                                                                                             | 12        |
| b. Inconsistencies with other Basel Committee's proposals .....                                                                                                    | 13        |
| i. The Committee continues to believe in the use of IRB models for the trading book (January 2016) .....                                                           | 13        |
| ii. Inconsistencies with the Committee's guidance on Expected Credit Losses (December 2015) .....                                                                  | 13        |
| iii. The Committee goes the opposite way to IFRS9 .....                                                                                                            | 14        |
| iv. Proposals to allow different options, like in the Standards for Interest Rate Risk in the Banking Book, introducing some leeway for national authorities ..... | 15        |
| 5. Exposures to banks, other financial institutions and corporates .....                                                                                           | 16        |
| a. General comments on IRB and SA .....                                                                                                                            | 16        |
| b. Banks, Financial institutions, including Insurance companies and Public Sector Entities .....                                                                   | 17        |
| c. Corporate exposures.....                                                                                                                                        | 18        |
| d. Specialized Lending .....                                                                                                                                       | 22        |
| e. Purchased receivables .....                                                                                                                                     | 25        |
| f. Securitization .....                                                                                                                                            | 25        |
| g. Counterparty Credit Risk (CCR) and CVA .....                                                                                                                    | 26        |
| 6. IRB parameters .....                                                                                                                                            | 28        |
| a. Exposure measurement: alignment with financial statements should be confirmed.....                                                                              | 28        |
| b. Actual maturity should be maintained under IRB Foundation in any case .....                                                                                     | 30        |
| c. Input floors.....                                                                                                                                               | 30        |
| d. Definition of default.....                                                                                                                                      | 31        |
| e. Rating system.....                                                                                                                                              | 31        |
| f. LGD floors do not reflect reality, especially on leasing business .....                                                                                         | 31        |
| 7. Credit Risk Mitigation .....                                                                                                                                    | 32        |
| a. Treatment of unfunded guarantees .....                                                                                                                          | 32        |
| b. Recognition of physical and financial collateral.....                                                                                                           | 33        |
| <b>Annex 1: Negative impact of consultation proposals for Corporates .....</b>                                                                                     | <b>35</b> |
| <b>Annex 2: Object, project and commodity finance, and IPRE .....</b>                                                                                              | <b>42</b> |
| <b>Annex 3: Specialized lending –harmonization of internal models .....</b>                                                                                        | <b>44</b> |

## 1. Key messages

- ⇒ **We strongly disagree with the preliminary statement of the Committee, according to which: “one of the lessons from the financial crisis is that not all credit risk exposures are capable of being modelled sufficiently reliably or consistently for use in determining regulatory capital requirements.”**
- We do think it is a *petitio principii* statement: from an historical point of view, internal models have been used for capital purposes at the very beginning of the financial crisis; therefore they cannot be blamed for the lack of reliability in RWA calculation at that time.
  - Quite the reverse, one of the lessons of the financial crisis is the negative feedback loop from herd behavior phenomenon, an aspect that a standardized « one-size-fits-all » framework would amplify. The 2007/08 financial crisis emerged among other things because of the large scale origination of subprime mortgages by unregulated entities, securitized by investment banks not subject to the US FED supervision at the time.
  - Looking back at default history throughout the financial crisis, we do not see any major deficiency in credit risk modelling for the asset classes where the Committee proposes to remove internal models. There has not been any major large corporate default, triggering any systemic losses in the banking sector, nor have there been widespread credit issues in the specialized financing space. In the financial sector, bank failures have certainly occurred, but in most cases due to liquidity risk more than credit issues. This liquidity risk was generally widely captured by bank’s internal models and risk management tools.
- ⇒ **We believe the Committee’s proposals are insufficiently thought through given their far-reaching consequences on the banking industry and on its ability to finance the economy.**
- The consultation paper succinctly deals with the IRB framework, leaving too much room for inconsistencies, unintended consequences on other parts of the Basel framework and multiple areas needing further clarifications. Please see our detailed comments to the consultative paper for an illustration of these deficiencies.
  - Recognizing the need for continuous improvements in internal models, tremendous efforts have been made and are underway by the European Banking Authority (EBA) through its benchmarking exercises and multiple consultations launched by the 2015 discussion paper “Future of the IRB approach”. The EBA work is leading models and parameters calculations to converge, hence to more comparability and less undue variability. It should be noted that the EBA<sup>1</sup>, after this extensive work, has concluded that 75% of variations of risk weight density among European banks was due to differences in portfolio structure, and “only” 25% to inconsistencies of models. The EBA has engaged into an ambitious program to address those inconsistencies, starting with the most fundamental concept of the definition of default. European banks are fully committed to work toward more comparability, and we believe that the significant limitations in the use of internal models put forward by the Committee go against the more constructive process of improvement engaged in Europe.
  - In addition, the Single Supervisory Mechanism/ECB has also launched a targeted review of internal models (TRIM), which covers High & Low Default Portfolios: this should provide further comfort with regards to the adequacy of the supervisory/validation framework.
  - Finally, internal models have been developed and constantly enhanced by banks for more than 15 years. They are used to calculate Pillar I and Pillar II capital requirements and have been subject to rigorous supervisory validation.

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[https://www.eba.europa.eu/documents/10180/950548/EBA+results+from+the+2014+Low+Default+portfolio+\(LD+P\)%20exercise.pdf](https://www.eba.europa.eu/documents/10180/950548/EBA+results+from+the+2014+Low+Default+portfolio+(LD+P)%20exercise.pdf)

⇒ **We urge the Committee to allow for proper time for discussion, and impact studies. Specifically, should a consensus between all jurisdictions on specific portfolios or asset classes not be established within the proposed time frame, the Committee should, logically, revert to a safer carve out process.**

- While the intention of the Committee to reduce regulatory uncertainty by establishing a definitive framework by end 2016 was welcome, we were not expecting such a fundamental redesign of all credit risk models, as the Committee was communicating on the “finalization of Basel III”. Given the magnitude of the proposed changes, we now strongly believe that the quality and sustainability of the regulatory outcome should not be sacrificed in order to meet the end 2016 deadline.
- If, by the end of summertime, the Committee is not in a position to reach an international consensus among all stakeholders (regulators, policy makers, banks, corporates) over a set of portfolios (notably large corporates, specialized lending, unconditionally cancellable commitments) these should be excluded from the revised framework (carve out principle) and existing rules would then still apply. Over these portfolios, a 5-year review clause should be introduced for local regulators to come up with concrete proposals.
- Indeed the consultative paper in its current form creates huge discrepancies in the RWA measurement which, contrary to stated objectives, may generate additional RWA variations which are not present in the current framework :
  - Numerous inconsistencies of portfolio definitions between the standardized and IRB approaches, leading to cliff effects and outcomes opposite to widely accepted hierarchy of risks
  - Undefined treatment of unfunded guarantees for “cross approaches” exposures in the consultation paper
  - Discontinuity of capital treatment for a same counterparty on the basis of its shareholding structure
  - No proposals to improve the definition of default though it has been identified as one of the main source of RWA variation, as demonstrated by the EBA research
  - High likelihood of regulatory arbitrage due to the absence of link between risk and capital requirement
  - Inconsistency of the proposed improvement to rating systems
  - Double counting of the leverage ratio and the Standardized floor not addressed
  - Inconsistencies between the IRB consultative document and other recent Committee’s work, such as the Expected Credit Loss paper and the Fundamental Review of the Trading Book
  - Proposals going against on-going efforts to enhance convergence between accounting and prudential frameworks.
- We would like to remind the Committee that the Basel II framework took more than 7 years to be finalized, and the Fundamental Review of the Trading Book (that covers roughly 6%<sup>2</sup> of credit institutions’ RWA) almost 4 years (with 3 intermediary consultative papers). By contrast, the Committee aims at producing a final document on Credit Risk in 9 months, for a framework that covers 85% of the industry’s RWA.

⇒ **We advise the Committee to analyze and disclose the result of the QIS on a geographical basis, including the distribution of outcomes, in addition to customary disclosures on a global basis, in order to enhance transparency of calibration and achieve the policy goal stated by the G20 of finalizing the regulatory framework while not generating a significant capital increase.**

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<sup>2</sup> BCBS352 Explanatory note on the revised minimum capital requirements for market risk, January 2016

- We are deeply concerned by the recently launched Quantitative Impact Study exercise that will be used to calibrate the final framework: it has been launched on 26th April 2016 and ended on 8 June 2016, thus it has been completed in 43 days<sup>3</sup>. Given this short timeframe, and given the magnitude of the changes required, banks have to provide information not readily available in current models, and subject to wide interpretation. We warn that the results of this QIS, whatever resources currently dedicated by banks to provide best efforts results, will not provide the level of quality and reliability that policy makers need in order to make a well-informed decision about the appropriateness of regulatory changes.
- We also would like to clarify that the result of the QIS should be disclosed on a gross basis, and that any assumption made by the Secretariat relating to potential adaptation of banks business models should be left aside and communicated separately.

⇒ **In line with the proposal in the standardized consultation relating to the optional use of external rating agencies, we strongly encourage the Committee to be pragmatic by taking into consideration the existence of different levels of internal models acceptance, and to leave the door open to jurisdictions to choose to maintain – fully or partially – the use of internal models.**

- In the second consultative document “Revisions to the Standardized Approach for credit risk” published in December 2015, the Committee recognized the existence of different banking practices, by introducing two separated methodologies one for jurisdictions where the use of external rating for regulatory purposes is allowed, and another for jurisdictions where the use of external rating for regulatory purposes is not allowed (mainly the US). We encourage the Committee to acknowledge different levels of internal models acceptance and different business models:
  - On the one hand, a much disintermediated financial environment in the US, where companies have an easy access to markets. Only very few large investment banks are systemic, and multiple small regional banks cover retail activities. In this landscape, regulators have a standardized Pillar 1 calculation, with strong focus on leverage and stress tests exercises. The proposed IRB revision will most likely have a limited impact in this environment
  - On the other hand, most banks in Europe with sophisticated internal models, developed over more than 15 years, under strict scrutiny by national supervisors, and now the SSM for the Euro area. These models are currently under an extensive review by European authorities which aim at reducing the very concerns raised by the Committee itself. Banks using internal models have a very good knowledge and understanding of their portfolios, which is reflected accordingly on risk weights and risk management practices.
- It is worth noting that there are differences in the degree of intermediation between jurisdictions (e.g. 30% through markets / 70% through banks in Europe versus 70% markets / 30% banks in the United States).

⇒ **In line with best practices in terms of risk modelling, we suggest that whenever risk weights are proposed, the Committee should support it with back-testing and statistical evidence.**

- This process will reduce obvious pitfalls: a guaranteed loan should have a risk weight lower than the same loan without guarantee, a loan with some collateral (which is the case for object finance) should also have a lower risk weight than a loan without any collateral.
- This simple practice should also highlight the reasons why some jurisdictions have lower risk weights for the same portfolio type: the recovery process and the practice in term of lending can be very different from one country to another. This is particularly the case when some

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<sup>3</sup> In comparison, the 2016 QIS on the revision of the standardised approach had to be produced in 77 days

countries such as the US allow non-banking actors to originate real estate loans while not bearing the relevant credit risk thanks to securitization, which is currently not possible in a large number of European countries on the same scale. These different practices have been repeatedly highlighted through default or recovery statistics, and we suggest that those differences should be recognized in a revised framework based on available statistics.

- Consequently, we would appreciate that differences in risk weight density be properly analyzed based on potentially different risk practices or risk appetite, and confronted with actual loss rates, rather than considered as reflecting merely inconsistencies in models.

⇒ **Last but not least, we fail to see how the introduction of output floors is contributing to the Committee's goals to strengthen RWA comparability, simplicity, as well as ensuring adequate risk sensitivity and capital requirements neutrality.**

## 2. Executive summary of our main proposals

|               | General comments on IRB and SA                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BCBS Proposal | Remove IRB for low default portfolios                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Issue         | Loss of risk sensitivity; Unsuitability of SA risk weights for low default portfolios; Inappropriate pricing across risk classes/segments; Large cliff effects; Portfolio migration to non-regulated competitors; Contradiction with IFRS 9 / Expected Credit Losses framework and provisioning                                                                                                                                                                                                       |
| FBF Proposal  | IRB should be preserved and improved further through international and regional works already underway                                                                                                                                                                                                                                                                                                                                                                                                |
| Fall-back     | Ensure that SA becomes more commensurate with risk (no implied downgrading) by defining a more granular set of risk buckets; Readjusting the external rating buckets and their associated risk weights, with a less punitive curve leading to an already conservative risk weight of 75% for BBBs; Address level playing field issues with the US by letting banks in jurisdictions which allow the use of external ratings, for unrated counterparties, to use the distinction between IG and non IG |

|               | Large corporates (assets > €50bn)                                                                                                                                                                                                                                                                                                                                                    |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BCBS Proposal | Move to SA                                                                                                                                                                                                                                                                                                                                                                           |
| Issue         | Loss of risk sensitivity; Very significant increase in RWA (counterintuitive and contrary to risk management wisdom); Large cliff effects; Detrimental impact on a large variety of products with no available alternatives from other market players (cash management, hedging, revolving credit facilities, guarantees); Disparities between entities depending of their ownership |
| FBF Proposal  | IRB should be preserved and improved further through international and regional works already underway                                                                                                                                                                                                                                                                               |
| Fall-back     | Apply F-IRB<br>If SA was to be maintained: apply it to the parent company and only to their subsidiaries that are subject to an explicit guarantee from the parent company and readjust the external rating buckets and their associated risk weights                                                                                                                                |

|               | Corporates above €200 million revenue threshold                                                                                                                                                                                                                               |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BCBS Proposal | Move to F-IRB                                                                                                                                                                                                                                                                 |
| Issue         | Loss of risk sensitivity; The limit does not reflect the quality and quantity of sample of default that banks have to assess the recovery and exposure at default for the corporate exposure; Large cliff effects; Disparities between entities depending of their ownership. |
| FBF Proposal  | IRB should be preserved and improved further through international and regional works already underway                                                                                                                                                                        |
| Fall-back     | Apply a constraint on total assets or a constraint on revenues but not both at the same time. As for the revenue, the Committee should increase the limit to €1bn<br>Real Maturity should be used under Foundation approach                                                   |

|               | Banks and Financial Institutions |
|---------------|----------------------------------|
| BCBS Proposal | Move to SA                       |

|              |                                                                                                                                                                                                                                                                                            |
|--------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Issue        | Loss of risk sensitivity; In its current form the SA will, by construction, introduce more RWA variability and will be even more uncertain than IRB models observed variability; non-sovereign Public Sector Entities (PSEs) will be affected too                                          |
| FBF Proposal | IRB should be preserved and improved further through international and regional works already underway                                                                                                                                                                                     |
| Fall-back    | If the SA was to be maintained, it is necessary to readjust the external rating buckets and their associated risk weights. Clarity is also needed on the definition of "financial institution"; PSE's should be dealt through a dedicated framework as they are often not rated externally |

|               |                                                                                                                                                                                          |
|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | <b>Specialized lending</b>                                                                                                                                                               |
| BCBS Proposal | Either SA or Slotting Approach                                                                                                                                                           |
| Issue         | Loss of risk sensitivity; Current RW do not reflect real risk; Large cliff effects                                                                                                       |
| FBF Proposal  | Retain A-IRB approach. These activities require risk sensitive approaches, hence internal models remain the best way to adequately allocate banks' capital to them                       |
| Fall-back     | If kept as an alternative, the slotting approach would need to be reconsidered:<br>More granular set of risk buckets;<br>Calibration at a level consistent with historical loss observed |

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | <b>CVA</b>                                                                                                                                                                                                                                                                                                                                                                                                                     |
| BCBS Proposal | Remove IMA-CVA from the revision of the CVA risk framework                                                                                                                                                                                                                                                                                                                                                                     |
| Issue         | Loss of risk sensitivity; Gap between regulatory CVA and accounting CVA                                                                                                                                                                                                                                                                                                                                                        |
| FBF Proposal  | Enable the netting of credit spread sensitivities on illiquid counterparties and related proxy hedges sensitivities while constraining netting recognition by ranking the disallowance factor (R) depending on the quality of the proxy hedge.<br>Review correlation assumptions on credit spread risk factors (across tenor for a single counterparty, across counterparties belonging to the same bucket and across buckets) |

|               |                                                                                                                                                                                                                                                                                                                                                 |
|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | <b>Unconditionally Cancellable Commitments</b>                                                                                                                                                                                                                                                                                                  |
| BCBS Proposal | Wide definition of Commitments                                                                                                                                                                                                                                                                                                                  |
| Issue         | Gap between accounting and prudential treatments<br>Overly broad definition                                                                                                                                                                                                                                                                     |
| FBF Proposal  | We propose the following definition: " <i>commitment means any contractual arrangement that has been offered by the bank and formally accepted by the client to extend credit, purchase assets or issue credit substitutes and that is reported in the financial reporting</i> " as such accounting and prudential treatments are fully aligned |

|               |                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|               | <b>Output floor</b>                                                                                                                                                                                                                                                                                                                                                                                                                  |
| BCBS Proposal | The Committee is considering the implementation of an aggregate output floor                                                                                                                                                                                                                                                                                                                                                         |
| Issue         | The role and added-value of floors is highly questionable as the Committee moves to greater standardization and introduces tougher leverage ratio requirements.<br>We believe that the distortive effect a floor has on risk incentives, and the fact that it hides details of the underlying assets on bank balance sheets will serve to reduce real comparability between banks whilst simultaneously reducing financial stability |
| FBF Proposal  | No output floor should be included as part of the Basel prudential framework                                                                                                                                                                                                                                                                                                                                                         |



### 3. Output floor

*The output floor is not justified; rather it could discredit measures already adopted*

The regulatory framework already includes a wide range of measures that make it safer and more reliable:

- With the revision of standardized and internal model approaches for credit risk many layers of conservatism will be added to capital requirements calculation (stressed parameters in the standard approach, input floors in internal models...).
- Capital requirements for other types of risks (market risks, counterparty risks and operational risks) have also been revised and will increase.
- The framework already contains a backstop on capital through the Leverage Ratio (LR).

*It would lead to serious unintended consequences conflicting with the Committee's objectives*

A capital floor is inconsistent with the aims of risk sensitivity, simplicity and comparability.

- The introduction of floors would reduce further risk sensitivity and contribute to distort risk management. Distortions to risk sensitivity might give rise to market changes which impact should be estimated. One of them is to create a disincentive for the lowest risk portfolios and for exposures with safe risk mitigation instruments (e.g. covered bonds).
- Capital floor may also compromise the goals of simplicity and comparability. Adding a floor dimension could give an illusion of comparability but it will not enrich the understanding of stakeholders. On the contrary, a floor would distort the meaning of some of the measures. It would increase complexity for investors seeking to understand a bank's risk portfolio and for banks seeking to allocate capital effectively. This additional layering would add undue complexity (and instability) to the capital framework.

The co-existence (with the LR) of two backstops will encourage additional shifts from the regulated sector to the shadow banking. This would not contribute to the objective of Financial Stability.

- The less regulated part of the financial system would benefit from such a floored banking sector. Best quality risks would shift to shadow banking, starting with low default portfolios.
- Indeed the calibration of the leverage ratio addresses the risk of unexpectedly large losses in low-RWA portfolios; the combination of a standard floor and the leverage ratio would make low risk portfolios economically unviable given that returns will no longer be commensurate with risk.
- This could lead to a further push towards the shadow banking sector and constrain lending (especially for best quality risks such as mortgage loans, credit card exposures and some investment grade portfolios).

*Should the BCBS decide to implement a capital floor:*

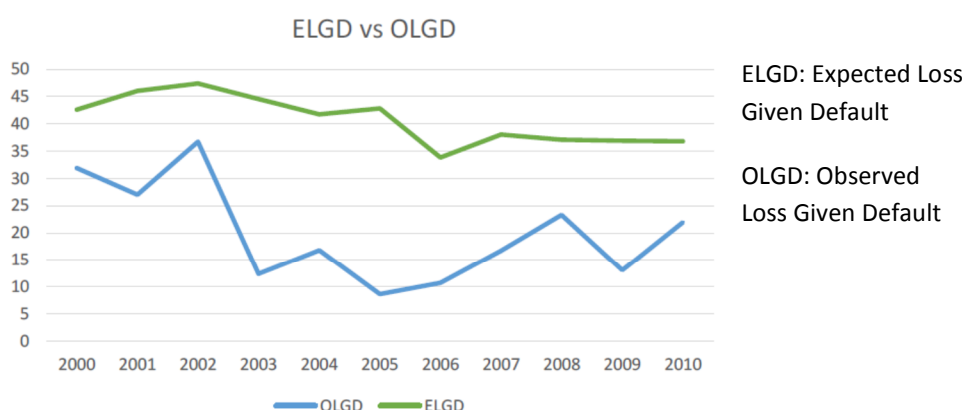
- A capital floor should be global across all risk types. Less granular floors, floors by risk type or by asset class would make the assessment of the bank risk profile more complicated (for bank managers as well as supervisors and analysts).
- It should be limited to minimum capital requirements (Pillar 1) and should not interfere with the dynamic of the capital buffers. Therefore it should directly be defined as a capital floor and not based on RWA.
- This would also avoid cumulative impact on TLAC/MREL given bank issuance capabilities are already saturated.
- It should also be necessary to maintain consistency with the prudential treatment of accounting provisions.

#### 4. Scope of use of internal models (supporting IRB)

##### a. Rationale for the use of internal models

###### i. Challenges in understanding which risks can be modelled

We disagree with the Committee's assessment of the unsuitability of certain portfolios to internal modelling. Back-testing banks' internal models proves that modelling techniques and validation approaches used in the past have resulted in conservative modelling outcomes. Please find hereunder a chart taken from Global Credit Data's large corporates LGD database. Contrary to the Committee's assessment of non-suitability, this study emphasizes that internal models prove to be conservative and prudent in their approach towards expected losses calculation:



- ❑ Asset Class: Large Corporate, Time Period: 2000-2010
- ❑ Backtesting LGD on a bank by bank basis shows differing margins between observed and estimated LGDs
- ❑ The margin differences result from calibration, prudence adjustment and downturn adjustment
- ❑ The average ELGD is significantly higher than OLGD

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42



[NB: observed LGD is computed using a risk free rate. The impact of using a different approach (e.g. the contract rate) has been measured by GCD to be less than 5% (absolute increase) on average. Therefore, the observed conservatism would remain].

Observations of defaults are not the only source of available meaningful credit risk information. Rating migrations, market implied parameters etc. should also be considered as relevant risk drivers.

###### ii. Misunderstanding of the primary source of model variability

Significant efforts and investments have been made, by both banks and regulators/supervisors at international and regional level, to ensure that undue variance in RWA outcomes is addressed.

According to the EBA<sup>4</sup>, differences in Global Charge (GC) are classified as those stemming from portfolio structure and composition (A-type differences) and those related to IRB risk parameters (B-type

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[https://www.eba.europa.eu/documents/10180/950548/EBA+results+from+the+2014+Low+Default+portfolio+\(LD+P\)%20exercise.pdf](https://www.eba.europa.eu/documents/10180/950548/EBA+results+from+the+2014+Low+Default+portfolio+(LD+P)%20exercise.pdf)

differences). Drivers could relate to differences in the characteristics of the exposures themselves or of credit risk management strategies between institutions, or to differences in supervisory practices and institutions' modelling practices. Applying a similar approach used in earlier studies allows the detection of A-type differences in GC across the institutions in the sample and, by doing so, isolates the so called B-type differences.

A-type differences include the following:

- different shares of defaulted exposure;
- different GC related to defaulted exposure;
- different relative shares of exposure classes ("portfolio mix effect").

The remaining differences for non-defaulted IRB assets, the so-called B-type differences, are caused by other effects such as idiosyncratic variations in the riskiness within an exposure class for non-defaulted IRB assets, credit risk mitigation (i.e. the business and risk strategy of the institutions) and the IRB risk parameters estimation (e.g. institution and supervisory practices).

A-type drivers explain around 75% of GC variability observed in the data, which can be mainly explained by the different share of the defaulted assets and by the portfolio mix effect.

We agree with the EBA perception that a wide majority of RWA variance is caused by the structure of the portfolios, and think that this diverse structure contributes to a significant reduction in systemic financial risk. If banks had similar portfolios, risk would be less diversified in the financial system, and crises may hit all institutions simultaneously. The ability to discriminate and originate risks according to its own risk appetite, is a clear contribution of the internal model framework. This diversity of portfolios is welcome, and currently complemented by the other source of risk weight variation stemming from possible differences in default dates set by banks. A given client has diverse relationships, loan payment dates, etc. with his various bank counterparts. 90 days past due will be recorded on different dates and occasions by different banks, as well as the "unlikeliness to pay" trigger.

Once again, this source of variation is intrinsically linked to the bank-client relationship, and legitimate.

A shift to the standardized approach (and the corresponding link to external rating agencies' ratings) will reduce the alignment between internal risk management practices and capital requirements.

We acknowledge that the treatment of defaulted assets can lead to various outcomes owing mostly to various local accounting specificities. However convergence is on its way (at least in countries applying IFRS9 such as in Europe, and through the guidelines issued by the Committee on Accounting for Expected Credit Losses) and sufficient time should be given to assess the impact of these changes onto RWA variability. We urge the Committee to wait for more detailed impact studies on this issue.

In a nutshell, we think the current proposals are too extreme to tackle "only" 25% of risk weight variability and could lead to counter-productive results. A major source of non-risk based RWA variability is the definition of default. We very much regret that this consultation paper does not cover this issue and ignores the work of other authorities (most notably the EBA) to streamline and harmonize parameters' definitions.

### **iii. Harmonization of models should be envisaged before removing modelling opportunities**

A very quick method would be a comparison of criteria and main mathematical assumptions of the different models. This would enable to identify the main sources of divergence.

A radical removal of internal models without first envisaging an exercise of harmonization and recalibration seems excessive and not reasonable given the highly negative consequences of the current alternative proposed by the BCBS while this exercise of harmonization would be quite feasible.

We are in favor of an approach akin to the EBA's (see EBA Discussion Paper on Future of the IRB Approach and EBA opinion on the implementation of the regulatory review of the IRB Approach, 4th February 2016) on all asset classes.

Given the variety and different features of banking activities, it would seem highly beneficial for both the regulator and the banking industry, to set up working groups composed of both parties that would work in workshops, on a monthly or quarterly basis for example, on the different regulatory aspects and businesses. This would enable the regulator to progressively better understand different banking activities, and banks to better take into account the regulator's goals.

### **iv. Data availability**

Observations of defaults are not the only source of available meaningful credit risk information. Rating migrations, market implied parameters etc. should also be considered as relevant risk drivers. Data used in theoretical models are based on asset values, like in the case of some Specialized Lending models, which are observable: aircraft and ship values are provided by external appraisers, over long historical periods.

Models use typical financial techniques and undergo thorough validation process by the regulator. Annual back testing exercises and benchmarking are reviewed by audit teams as well. Pooled default and loss data provided notably by Global Credit Data, or rating agencies enable to assess average loss rates of asset classes. These pooled data could be further enriched with additional type of information in order to broaden internal models back testing exercises.

### **v. Combining risk sensitivity with comparability**

The revised SA needs to be risk sensitive. This is not incompatible with a more constrained approach, monitored by supervisors.

A way to achieve convergence of risk parameters could be to promote a similar calibration, validated by supervisors, for all banks, covering a larger perimeter than what is currently rated by CRAs. Banks could be invited / mandated to submit their calibrated PD / LGD levels for a broad list of counterparties or transactions (starting from those requested in the Hypothetical Portfolio Exercises already run by the BCBS and the EBA), and the supervisor could allow banks to use as input parameter in the IRB formula a constrained parameter such as the mean / median / nth percentile of the distribution of values submitted by the banks (to ensure the appropriate TTC-ness for PDs, and the downturn character for LGDs).

In Europe, this process may leverage on the submissions demanded by the European Central Bank in the Anacredit project (or similar projects already implemented, in Italy for instance). At least in Europe, this project will extensively cover bank credit portfolios, gather internal risk parameters, and enable benchmarking of individual risk parameters via common legal entity identifiers.

Another way could be for banks to ask for approval of their internal rating approaches by supervisors (process described by EBA<sup>5</sup>), and then be allowed to map their internal ratings grids into the revised SA buckets.

**b. Inconsistencies with other Basel Committee's proposals**

**i. The Committee continues to believe in the use of IRB models for the trading book (January 2016)**

In the Committee's "Standards for minimum capital requirements for market risk" (issued in January 2016), default risk should be calculated using a PD and LGD, where § 186 (s) and (t) of the paper states that: *"Where an institution has approved PD [LGD] estimates as part of the internal ratings-based (IRB) approach, this data must be used. Where such estimates do not exist, or the Supervisor determines that they are not sufficiently robust, PDs [LGDs] must be computed using a methodology consistent with the IRB methodology unless otherwise specified below."*

Thus, on one hand, the Committee is recognizing the validity of internal assessment of PD and LGD in the trading book, while, on the other hand it considers that banks are not able to estimate PD and LGD in a reliable and consistent manner for some credit risk portfolios. This inconsistency is further highlighted by the Committee's current work on IFRS9 implementation and Expected Credit Loss estimations, where the Committee again recognizes the use of PD and LGD parameters –see section below.

**ii. Inconsistencies with the Committee's guidance on Expected Credit Losses (December 2015)**

Given the need for banks to overhaul accounting models in light of latest IFRS / US GAAPs norms, they will be expected to have ratings systems as consistent as possible with the accounting (at least under IFRS) and the regulatory frameworks – not only for cost reasons, but also for practical considerations and in the interest of the frameworks legitimacy and credibility, and meet the Use Test requirements.

In this respect, we will expect to have a clear and consistent definition of how ratings should be designed, attributed, and updated.

In particular, we think the Committee should take additional time to provide a compared reading of PD ratings requirements available in both of the following BCBS documents:

- Consultative Document "Reducing variation in credit risk-weighted assets – constraints on the use of internal model approaches" - March 2016. (Cf. Materials #1, §4.1)
- "Guidance on credit risk and accounting for expected credit losses (ECL)" - December 2015 (Cf. Materials #2, mainly Principles 2 &3).

We would like to point out that Through the Cycle and Point in Time characteristics had been defined by the BCBS in February 2005 in "Studies on the validation of internal rating systems". The summary below refers to this document too.

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<sup>5</sup> in JC 2015 067 11 November 2015 - JOINT FINAL draft Implementing Technical Standards on the mapping of ECAIs' credit assessment under Article 136(1) and (3) of Regulation (EU) No 575/2013 (Capital Requirements Regulation - CRR)

We understand that Through the Cycle PD rating assessments are now clearly required by the IRB proposals, at least on corporate portfolios:

- In the current Basel agreement, such assessments were left to banks discretion, in line with their internal risk management and rating practices, just requiring to perform prudent PD assessments as a Long Term Average of 1 year Default rates.
- It is quite in line with ratings practices of some Agencies (S&P, Moody's) on Large Corporate portfolios, but not necessarily in line with ratings practices on SME and Retail portfolios, usually more sensitive to short term Default Rates variations assessments.

More importantly, the Committee's IRB proposals appear inconsistent with the Guidance on ECL, promoting Point in Time - Forward Looking estimates for ECL, i.e. taking into account both intrinsic counterparty risk and business cycle conditions.

Please see below a relevant selection of paragraphs from BCBS documents:

| BCBS Consultative Document<br>A-IRB Changes & Floors                                                                                                                                                                                                                                     | BCBS Guidance on<br>Credit Risk & Accounting ECL                                                                                                                                                                                                                                                                                                                                                                                                            |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>§4.1: "Ratings stable over time &amp; business cycle"</p> <p>⇒ This sounds like PD Rating TTC characteristic</p> <p>⇒ We would welcome a discussion on what a relevant stability indicator is.</p>                                                                                    | <p>Article 43: "...an effective credit risk rating system will allow a bank to identify both migration of credit risk and significant changes in credit risk."</p> <p>Article 45: "ECL estimates must be updated on a timely basis to reflect changes in credit risk grades..."</p> <p>⇒ This sounds like a PD PIT Rating characteristic</p>                                                                                                                |
| <p>§4.1: "Migrations generally not due to position changes in the business cycle"</p> <p>⇒ Migrations independent from the position in the business cycle are PD TTC characteristic (all the more so as Observed Default Rates may vary over the business cycle, for a given rating)</p> | <p>Article 31 b): "include criteria to duly consider <b>the impact of forward-looking information, including macroeconomic factors</b>"</p> <p>⇒ Should the business cycle be figured out through macroeconomic factors?</p> <p>⇒ This looks like PD PIT characteristic as credit risk and Observed Default Rates assessments should depend on the position in the business cycle</p> <p>⇒ Consistency is needed between all forward-looking parameters</p> |

### iii. The Committee goes the opposite way to IFRS9

We would like to express our greatest concern about the drift between the accounting framework to be applied with IFRS on the one hand and the proposed prudential framework on the other hand.

IFRS 9 will be the international accounting standard applied by many global banks with regards to provisioning. Accordingly, provisioning (affecting P&L and then banks' equity and own funds) will be based on internally assessed credit risk scenarios in order to reflect as properly as possible the risk profile of banks in their own funds. However, the consultative paper jeopardizes the use of internally assessed inputs (such as PDs or LGDs). As a consequence, for the same counterparty (for instance a subsidiary of a large corporate), the provisioning will rely on internal assessment while the RWA will be computed according to a standardized framework.

Thus, while IFRS9 promotes a wider use of internal models for credit risk - through the development of forward-looking scenarios and the introduction of expected credit losses for accounting purposes, this consultation's proposals seems to go the opposite way by undermining any convergence between the two frameworks in spite of all efforts performed over these last years by international organizations.

**iv. Proposals to allow different options, like in the Standards for Interest Rate Risk in the Banking Book, introducing some leeway for national authorities**

We suggest that the Committee follows an approach in Standards - Interest Rate Risk in the Banking Book (April 2016 – hereafter IRRBB Standard), acknowledging that risk measurement and monitoring can rely on internal models and systems, while at the same time operating in a consistent framework and under ongoing tight supervision. We support the role devoted by this recent IRRBB Standard to disclosures in order to improve the consistency of the approaches followed by banks (*“The disclosure requirements under Principle 8 have been updated to promote greater consistency, transparency and comparability in the measurement and management of IRRBB.”*)

Indeed the April document shows that some leeway can be left to national authorities to adapt the framework to local specificities or constraints (i.e. *“... applying national discretion, set a higher floor under the local interest rate shock scenarios for their home currency.”*...). We think that the different structure of the banking markets (between countries, products etc., also owing to legal reasons) would legitimate some freedom of interpretation and adaptation of parameters and approaches be left to local authorities, so as to make sure that the framework ensures satisfactory and prudent risk management, and at the same time reflects local practices.

The IRRBB standardized approach, while described as optional (up to local authorities) can indeed serve as a useful benchmarking tool, and also retain some risk sensitivity (i.e. *“...mandate the banks under their respective jurisdictions to follow the standardized framework for IRRBB (e.g. if they find that the bank's IMS<sup>6</sup> does not adequately capture IRRBB). The standardized framework has been updated to enhance risk capture.”*) This sentence reflects that accurate internal information systems and practices can be relied upon to measure and manage risk appropriately.

We would encourage the Committee to follow a similar approach for credit risk, in order to build the consistent framework desired by all parties.

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<sup>6</sup> Internal Measurement Systems

## 5. Exposures to banks, other financial institutions and corporates

### a. General comments on IRB and SA

**We believe that the A-IRB approach should be retained for every type of portfolio, including low default ones.** In our modelling approach, we use internal as well as external data sources from either rating agencies or consortium data from banks globally to evaluate PD and LGD parameters. We believe that our models, governed by robust risk management frameworks, properly quantify credit risk.

We note that mandatory application of the standardized approach to some portfolios would also likely result in inappropriate pricing across risk classes/segments (see examples in appendix 1). Furthermore, capital requirements for low -risk exposures relative to higher -risk assets would increase as the Committee's proposal is not risk sensitive. These low-risk portfolios would most likely migrate to non-regulated competitors while banks would keep riskier assets in their portfolios, a move already likely in the context of the implementation of the leverage ratio.

**In the event, however, that the Committee proceeds with its proposal to require the standardized approach for certain low-default exposures, we would stress the necessity to adapt the revised SA to reality.**

The SA risk weights on Investment grade companies are over-conservative on supposedly "low-default" portfolios. Those risk weights, if translated into PDs and ratings, correspond to an implicit downgrade of circa 3 notches. As the revised SA aims at being more risk sensitive, risk weights should be revised to avoid a systematic bias leading to major mispricing. The revised risk weights proposed below remain conservative compared to IRB, but reduce the gap.

| External Rating  | AAA to AA-       | A+ to A-         | BBB+ to BBB-     |
|------------------|------------------|------------------|------------------|
| Observed PD      | 0.01% to 0.02%   | 0.02% to 0.04%   | 0.06% to 0.48%   |
| Risk Weight (SA) | <b>20%</b>       | <b>50%</b>       | <b>100%</b>      |
| Implied PD       | <b>0,05%</b>     | <b>0,23%</b>     | <b>1,10%</b>     |
| Implied Rating   | <b>A-</b>        | <b>BBB</b>       | <b>BB</b>        |
| Suggested RW     | <b>[10%-15%]</b> | <b>[20%-30%]</b> | <b>[50%-75%]</b> |

*Assumptions of 45% LGD & 2.5-y maturity*

This conservative bias is even more pronounced for transactions with short term maturities.

In addition, the revised SA proposals set an un-level playing field between US banks and others jurisdictions.

*Jurisdictions that do not allow external ratings for regulatory purposes*

| Investment category | Investment Grade |     |     | Non-Investment Grade |      | Unrated IG | Unrated non-IG |
|---------------------|------------------|-----|-----|----------------------|------|------------|----------------|
| Risk weight         | 75%              | 75% | 75% | 100%                 | 100% | 75%        | 100%           |

*Jurisdictions that use external ratings*

| External rating of counterparty | AAA to AA- | A+ to A- | BBB+ to BBB- | BB+ to BB- | Below BB- | Unrated | Unrated |
|---------------------------------|------------|----------|--------------|------------|-----------|---------|---------|
| "Base" risk weight              | 20%        | 50%      | 100%         | 100%       | 150%      | 100%    | 100%    |

The table above shows in red the buckets where the allowance to use external ratings translates into a competitive disadvantage compared to using the IG/non-IG split.



Only 25% of European corporates are rated, and most rated corporates are in the BBB range which means that in most of the cases, risk weights applied by US banks for BBB rated or IG-equivalent unrated corporates would be 75% whereas European banks would have to apply a 100% risk weight for the same corporate.

It is of paramount importance that both issues are addressed, by

- readjusting external rating buckets and their associated risk weights, with a less punitive curve leading to an already conservative risk weight of 75% for BBBs,
- allowing banks in jurisdictions admitting the use of external ratings to use the distinction between IG and non IG for unrated corporates.

#### **b. Banks, Financial institutions, including Insurance companies and Public Sector Entities**

By proposing to remove internal models for these asset classes, the Committee will thus impose the application of the revised SA which relies on external ratings and due diligence (for jurisdictions that allow the usage of external ratings) or on an internal assessment of the repayment capacity of the counterparty (for other jurisdictions). We would like to make the following comments:

- In order to reduce RWA variability, the Committee imposes the application of the revised SA. The revised SA is introducing in addition to external ratings high level concepts such as 'due diligence' and of 'capacity to meet a financial commitment' to assess the applicable risk weights. Thus in its current form the SA will, by construction, introduce more RWA variability and will be even more uncertain than IRB models observed variability.

We are surprised to read that the Committee justifies the application of the revised SA to these counterparties by the statement that they are *"usually (highly) rated by credit rating agencies"* and *"subject to significant market analysis"*: this is contradictory in itself and with the Committee's goal to reduce reliance on external ratings and probably not true since a majority of those ratings are A or BBB.

To conclude, we support the use of internal models and the use of LGD values reflecting local legal characteristics (e.g. liquidation regime, insolvency framework, etc.) for the calculation of RWAs on financial institutions.

#### **Definition of financial institutions**

By assimilating insurance companies to financial institutions, the Committee is creating a discrepancy between the IRB and SA. For the purpose of the application of the IRB, insurance companies are considered as financial institutions, for the purpose of the application of the SA, they are considered as corporate.

The Committee has excluded "financial institutions" from the IRB scope of application without defining such exposures. For the sake of clarity we suggest the Committee to define such exposures and propose the following:

*Financial institutions are legal entities whose main business includes: lending, factoring, leasing, provision of credit enhancements, securitization, financial custody, central counterparty services, proprietary trading and other financial services activities.*

#### **Public Sector Entities**

In its paper “Revisions of the Standardized Approach for Credit Risk”, the Committee explicitly excludes from its review Public Sector Entities (PSE), together with Sovereigns and Central Banks. This is not the case of this consultative document, where only the Sovereigns are excluded. As a matter of fact, PSEs are mentioned only in the Annex of the ongoing consultation, either as a part of the Sovereigns, if they are treated as sovereigns under SA, or as a part of banks exposures, if they are treated as such under current SA.

However, the European regulation leaves a third possibility for the Regional Governments and Local Authorities (RGLAs), which can be handled differently if they are located in the European Union.

Moreover, the French RGLA are currently reported in A-IRB under the “Institutions” category, but can hardly be considered comparable to banks, with which they have nearly nothing in common, except their limited number of defaults. To include them in the “Institutions” category would definitely flaw the conclusions to be drawn from the QIS exercise and this consultation. In addition, French RGLA would, as a consequence of the above-mentioned rules, be treated according to the revised SA; as already mentioned the latter has not been defined for PSEs, which makes it impossible for banks to evidence the impact in terms of RWA in the current QIS exercise.

### **c. Corporate exposures**

#### **i. Large corporates (Asset size above €50bn)**

**For Large Corporates the application of the revised SA would have a greater impact than expected by the Committee:**

**The capital requirement will significantly increase**

- When they are externally rated, large corporate companies (under revised SA) are generally
  - Rated A, thus their risk weight will be 50% (frequently below 25% under A-IRB), or
  - Rated BBB, thus their risk weight will be 100% (versus 25-35% under A-IRB).

This means that the risk weight will suddenly increase by circa 400% for every corporate concerned, without a risk-based rationale.

### **Large corporate groups need banking services**

Although indeed large corporates have an easier access to markets to finance their debt, we remind the Committee that large corporates still need banking services for the purpose of their day-to-day activity. Among those services, one can list the following ones:

- Revolving credit facilities, overdraft, (i.e. : undrawn credit lines)
- Back-up liquidity lines for Commercial Papers issued by the corporate
- Performance bonds, Stand-by letters of Credit, and all other banking facilities needed by the commercial activities of corporates
- Cash management facilities (notional and cash pooling)
- Factoring
- Hedging with OTC Derivatives

A large part of financing products provided to large corporates is made of undrawn credit facilities that cannot be replaced by any capital market issuance.

The application of the Standardized Approach to large corporates will impact a wide variety of products that cannot be replaced by any other market player than banks: the application of the SA will thus be detrimental to large corporate entities (see Annex 1 for an illustration).

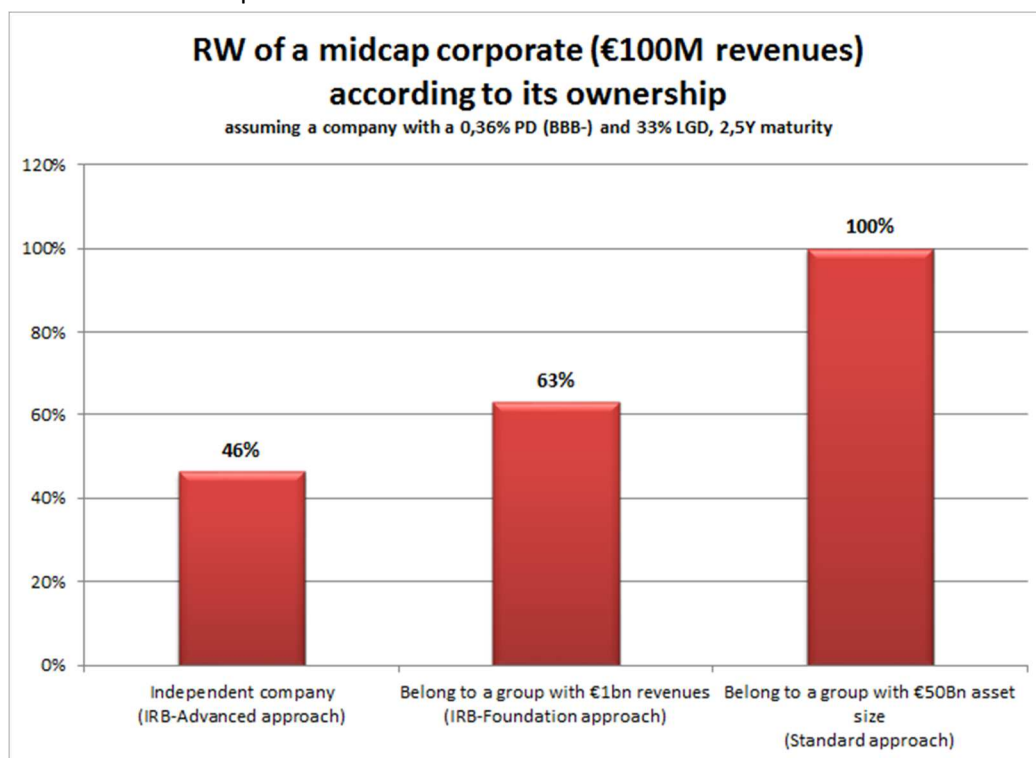
In practice the current definition of the scope of application of the SA will also include all the subsidiaries of these groups, whatever their size and thus will include middle market unrated corporates, which will end up attracting a 100% risk weight. This proposal will cover a much larger number of corporate entities than what the Committee may expect.

### **The current BCBS proposal will create discontinuity in capital requirement for large corporate groups**

Furthermore this proposal is inconsistent:

- By including the subsidiaries of large corporate groups, the Committee makes the assumption that such entities benefit from an implicit support of the group which makes them “low default”. On the contrary, this implicit support is not recognized under the SA since the corporate subsidiary will be treated as non-guaranteed by the mother company (and receive a 100% risk weight, since only the parent company is externally rated)
- Moreover, for a counterparty of identical credit quality, the applicable approach to a medium sized company will be different (SA, F-IRB or A-IRB) if the entity belongs to a large group or not: in the absence of parent guarantee there is no rationale for such a different capital treatment, plus it creates a discontinuity in risk weighting
- For the same reason, entities qualified as specialized lending structures belonging to large corporate groups should not be considered under the SA only.

The following graph illustrates risk weights applicable to a midcap corporate with an average risk profile on the basis of its ownership:



Source: simulation based on the 2015 annual report of a European bank

Thus we recommend that subsidiaries of large corporates should not be treated in the same category as their parent company, unless they benefit from an explicit guarantee, and hence inherit the same risk parameters, as their parents. Other subsidiaries should be treated on a standalone basis.

**We believe that the application of revised SA to large corporates is not justified:**

The larger the corporate group, the higher will be the risk weight. This is completely counterintuitive, and goes against any risk management wisdom. As a reminder the Committee proposed the following risk weight matrix according to the size of the company in its December 2014<sup>7</sup> paper where RWAs decrease as the size of the company increases:

| Risk weights for senior debt corporate exposures |               |                      |                       |                |
|--------------------------------------------------|---------------|----------------------|-----------------------|----------------|
|                                                  | Revenue ≤ €5m | €5m < Revenue ≤ €50m | €50m < Revenue ≤ €1bn | Revenue > €1bn |
| Leverage: 1x–3x                                  | 100%          | 90%                  | 80%                   | 60%            |
| Leverage: 3x–5x                                  | 110%          | 100%                 | 90%                   | 70%            |
| Leverage > 5x                                    | 130%          | 120%                 | 110%                  | 90%            |
| Negative equity(*)                               | 300%          |                      |                       |                |

(\*) Note: Negative equity means that a corporate's liabilities exceed its assets.

For large corporates, additional official studies / public disclosures are available in order to thoroughly assess their risk profile (e. g.: listed companies, public offering, audited financial statements...).

**Accordingly, our proposals are:**

IRB should be preserved and improved further through international and regional works already underway.

If the Committee was to maintain its proposal to apply a different approach to large corporates we suggest:

- To apply the F-IRB<sup>8</sup> to companies whose asset size is above the threshold and only to their subsidiaries that are subject to an explicit guarantee from their parent company while maintaining the application of the A-IRB for their other subsidiaries as far as their total asset size is below the €50bn threshold.

If the Committee was to maintain its proposal to apply the SA to large corporate we suggest:

- To apply the SA to companies whose asset size is above the threshold and only to their subsidiaries that are subject to an explicit guarantee from their parent company, while maintaining the application of the A-IRB for their subsidiaries as far as their total asset size is below the €50bn threshold
- We would like to remind the BCBS of the necessity to recalibrate the risk weights under the SA consistently with our suggestions above and to remedy the discrepancies between jurisdictions allowing the use of external models and jurisdictions which don't.

Thus we propose the following new formulation to the Committee:

<sup>7</sup> Revisions to the Standardized Approach for credit risk, December 2014

<sup>8</sup> See our development below on improvements to the foundation approach

- To remove the IRB approaches for the following portfolios, which, as a result will be subject to: (...)
  - Large corporates (defined as corporate with total consolidated assets exceeding €50bn), and their subsidiaries when they are subject to an explicit guarantee from their parent company.

## ii. Corporate portfolio subject to revenues limit

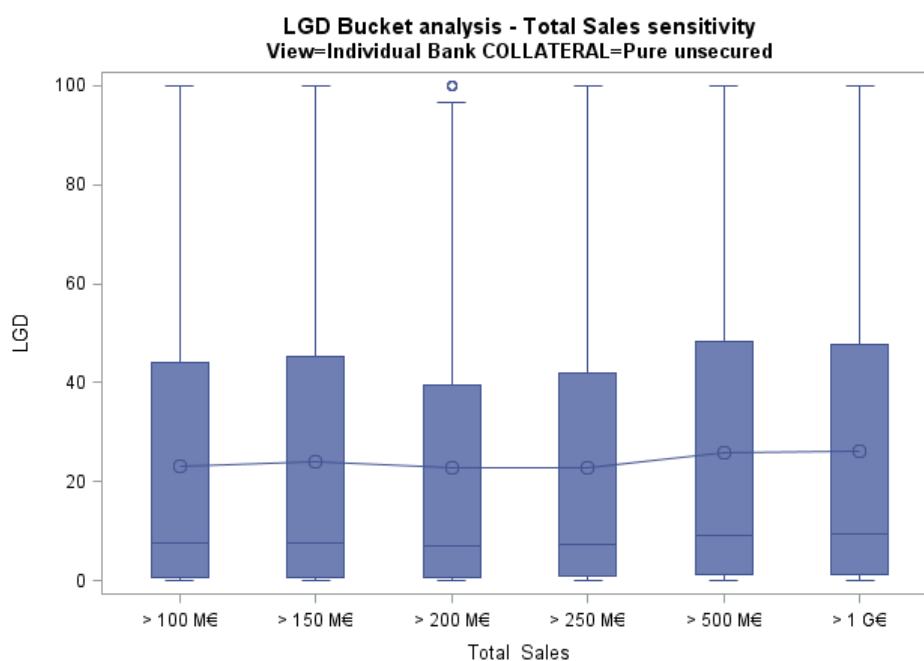
The **€200M** revenues cap to apply the A-IRB does not reflect the quality and quantity of sample of defaults that banks have to assess the recovery and exposure at default for their corporate exposure. As for the revenue, the Committee should increase the limit to [€1bn] revenues for the application of the A-IRB.

**We believe the Committee should modify its proposition: applying a constraint on total assets or a constraint on revenues but not both at the same time.**

## iii. Other inconsistencies on Corporates

The proposed CRM approach would treat distinctly a Corporate which falls under the SA and another treated under F-IRB / A-IRB, even when there is a similar level of collateralisation and therefore the same risk reduction mechanics.

**Observed LGDs do not provide evidence that LGDs might present a different pattern as a function of turnover.** One of our members (a large diversified bank) provided us with a statistical analysis of their internal LGD database on the unsecured corporate segment. The purpose of their analysis was to establish the distribution of realized losses (in % of EAD) by bucket of turnover, or total assets of the defaulted client. The database was filtered to retain only losses observed on defaulted clients with turnover (or total assets) above a threshold (with the highest turnover bucket being turnover above 1 billion EUR). The distribution was then recomputed for all losses observed on clients with a lower turnover level (above 500 MEUR) etc. The graph should be read from right to left, with the last distribution on the left containing all observed cases (i.e. threshold = any defaulted borrower with turnover above 100 million EUR). The conclusion is that LGD distributions are quite similar, and that no turnover threshold seems relevant to determine whether F-IRB should be used rather than A-IRB.



[the box gives the 25-50-75 percentiles of the distribution, the circle is the average value). Discount rate was set arbitrarily at risk-free rate and thus overestimates the actual LGD (assuming losses are usually discounted at the contract Effective Interest Rate, which is usually seen as best practice), but does not alter the conclusions on the shape of the distributions].

**We think that the F-IRB distinction based on turnover should be removed, and the F-IRB category should be merged into the A-IRB category, as:**

- there is no evidence of a different pattern as per the LGD (whether on average or in terms of distribution)
- it seems at odds with the Committee's objectives of simplicity, and comparability of treatment of the various corporate portfolios,
- it would result in material cliff effects.

#### **d. Specialized Lending**

There is a strong concern for Specialized Lending activities as the Committee proposes to replace internal models either with the revised SA (which would also apply as a floor) or with the Slotting Approach. Both proposals would not be risk sensitive enough for this bespoke type of financing and their risk weight calibration would be overly punitive compared to the low loss rates observed.

Structurally speaking, Specialized Lending benefit from the following characteristics:

- Control over the financed asset or the project financed and over cash flows generated, provided by the legal documentation structure, and by the security package which comprises of security over the assets and/or pledge over the shares of the borrowing structure, general assignment of earnings and specific assignment of contracts and insurances, limitation imposed on the borrowing structure in terms of activity, additional indebtedness, new investments, etc.
- Assets financed relate to large transportation, social, electricity and energy infrastructures, natural resources plants, aircrafts, vessels, railway networks, real estate or commodities, which are critical to real economy, and which benefit from underlying sustainable cash flows

These structures and security packages, together with the experience of dedicated teams, enable lenders to monitor the risk of these deals and benefit from low loss rates. These financings require risk sensitive approaches, hence internal models are the best way to adequately allocate banks' capital.

Specialized lending is key to the economy, given amounts at stake and the nature of financed assets which are large infrastructure and commodities (see Annex 2). The impact of commercial banks providing lower volumes of financing to these activities would be very detrimental to the development and renewal of critical infrastructure assets.

**Current BCBS proposals are not consistent with the low loss rates observed on specialized lending; we propose instead that internal models are maintained subject to conditions**

Knowing the importance of default and loss data, banks have pooled their data on specialized lending, except for IPRE. Hereunder are the loss rates calculated on the basis of pooled data provided by Global Credit Data and S&P:

|                     | Observed Default Frequency (ODF) | Observed LGD | Expected Loss Rate* (ODF x LGD) |
|---------------------|----------------------------------|--------------|---------------------------------|
| Aircraft finance    | 1.96%                            | 16%          | 0.31%                           |
| Shipping finance    | 3.13%                            | 13%          | 0.41%                           |
| Commodities finance | 0.89%                            | 13.30%       | 0.12%                           |
| Project finance     | 1.50%                            | 23%          | 0.35%                           |

\*Sources: <sup>9</sup>

Specialized lending expected loss rates are around 0.15-0.40 %, i.e. much lower than for unsecured corporate loans.

Regarding IPRE, despite the absence of recent reliable pooled data at European level, according to a March 2013 Bankers Association Research Datanotes<sup>10</sup> in which an analysis was conducted on various real estate loans categories (single family, commercial and industrial loans, CRE loans...) from 2007 to 2012, the conclusion was the following *“Over the course of 2012, and throughout the credit crunch and recession, commercial and multifamily mortgages have had the lowest charge-off rates of any type of loan held by commercial banks and thrifts.”*

- **Proposed risk weights do not recognize the secured nature of SL and low loss rates observed**  
Although not directly comparable, implied risk weights that would result from historical loss data, have been computed and compared to the proposed risk weights under the SA or Slotting approach proposals:

|                     | Implied RW * | SA proposal | SA proposal/ Implied RW | Slotting approach **/Implied RW |
|---------------------|--------------|-------------|-------------------------|---------------------------------|
| Aircraft finance    | 55%          | 120%        | 2.2x                    | 2.0                             |
| Shipping finance    | 50%          | 120%        | 2.4x                    | 2.2x                            |
| Commodities finance | 33%          | 120%        | 3.6x                    | 2.9x                            |
| Project finance     | 75%          | 150% ; 100% | 2x, 1,3x                | 1,5x                            |

\*These implied risk weights are based on average default and loss rates observed on pooled data.

\*\*we made an estimation of the Slotting criteria risk weights<sup>11</sup> which is a best effort and only indicative as this approach is not applied by A-IRB banks, and we don't have a consistent view on the breakdown of the portfolio in the different categories.

<sup>9</sup>

- Aircraft, Shipping: source Global Credit Data
- Commodities Finance: source AFME Discussion Paper, Capital Treatment of Commodity Finance, December 2015

- Project Finance: source S&P (Discounting at loan rate)

\* 5 % conservatively added to the LGD in order to have an equivalent of discounting at loan rate

NB: GCD data include both senior and junior loans

<sup>10</sup> See <http://mba.informz.net/MBA/data/images/cmfdatanote030513.pdf>

<sup>113</sup> Slotting criteria risk weights estimated with the following assumptions:

- a maturity over 2.5 years for Object Finance and Project Finance and 1 year for Commodities Finance,

As shown in the table above, current proposed risk weights under the SA or the Slotting Approach seem unduly conservative. The secured nature of specialized lending financings (through comprehensive security package) by valuable assets and cash flows is not taken into account by current proposals.

- **Data availability and modelling techniques:**

Specialized lending benefits from deep pooled database on historical default and losses, collected for example by S&P for Project Finance or by Global Credit Data for Commodities Finance and Object finance. Models are not necessarily statistical ones.

For portfolios where the risk sensitiveness is not always best modelled on the basis of historical default and loss data, theoretical models are more relevant. Theoretical models can be based on asset values or on future cash flows generated by the asset financed, and are based on deep data basis covering decades of asset values (e.g. aircrafts or vessels), commodities and economic data (oil and gas prices, electricity prices, etc.) enabling for example to assess LGD of Object finance or Project finance. These models are risk sensitive as they take into account both the underlying asset possible volatility of value or cash flows generated, and the structure of the transaction including leverage and contractual structure, e.g. existence of off-take (sale) contract, political risk after mitigants, etc. These models use well documented modelling techniques. They are annually back-tested and are flexible, i.e. could be easily recalibrated if needed in a harmonization process.

- **Industry proposal in favor of keeping internal models by addressing the data concern and variability issue, subject to a number of conditions**

The Committee's concern regarding the lack of historical data and variability of risk weights could be addressed through: 1) harmonization of models (completion of EBA/ECB works and additional works, please see in appendix, some proposals of harmonization works); 2) the enrichment of data pooling with additional information. Banks would agree on a set of relevant additional type of information to be collected for each type of Specialized Lending exposure. These data would enable banks to input the defaulted deals (even though these were not originally in their portfolio) in their internal models and check that those provide consistent estimates of loss rate observed. This would enlarge the back-testing which today is processed by each bank on the basis of its own default data.

As long as internal models provide consistent loss rates estimate, also reflecting the bank's strong risk management, they should be kept. This could be done subject to conditions:

- Appropriate organization of origination and monitoring teams so as to ensure that experience of and lessons learned from deals in difficulty is shared
- Lending policy periodically updated in consideration for default track-record and taking into account the evolution of markets.

**If kept as an alternative, the Slotting Approach would need to be reconsidered**

Should Slotting Approach be considered as a possible alternative, it would need to be revised:

- 
- 70% of the portfolio<sup>11</sup> would be in category 1 or 2 and bear 70% or 90% (i.e. 80% in average), and 30% of the portfolio would be in category 3 or 4 and bear 115% or 250%, (i.e. 183% in average). This would imply an average Slotting approach risk weight of 111% for Object Finance or Project Finance and 97% for Commodities Finance.



- The current supervisory slotting approach will lead to a lack of risk-sensitivity. Many operations with very different characteristics will be treated with the same level of risk. Therefore, it should be much more granular, notably in categories 1 and 2 in which most of the exposures would be concentrated.
- It should be calibrated at a level consistent with historical loss observed on SL (please see also Annex 3 for a harmonization of internal models proposal that could be used for Slotting Approach calibration as well).

#### **e. Purchased receivables**

If indeed the consultative document mentions the treatment of purchased receivables (*capital treatment according to the treatment of obligor*), it is silent on the application of the top-down approach for purchased receivables (i.e.: situations where “*it would be an undue burden on a bank to be subjected to the minimum requirements for the IRB approach to corporate exposures that would otherwise apply<sup>12</sup>*”). We think that the proposal to migrate A-IRB portfolios under the SA does not make sense for pool of granular receivables.

If the Committee was to reject our alternate proposal on corporates and maintain a standardized approach for large corporates, we suggest the Committee to confirm that the top down approach for purchased receivables remains applicable.

#### **f. Securitization**

##### **The impact on the new securitization framework has not been assessed**

The proposed restrictions in the scope of application of the IRB approach will also affect the recent revisions to the Basel securitization framework (11 December 2014). In this document, the Committee recommended to place the SEC-IRBA at the top of the hierarchy of approaches –this however requires that a bank be able to calculate IRB capital on more than 95% of the underlying exposures. The presence of exposures that could now be restricted to the standard approach (financial institutions or large corporates) in the underlying pool would ultimately prevent the use of the SEC-IRBA approach. As a consequence, banks would have to apply by default the external ratings based approach (SEC-ERBA, when it is available) or the securitization standardized approach (SEC-SA) on many non-retail pools of exposures (trade receivables etc...).

Furthermore, securitization transactions are performed on a homogeneous portfolio. Should corporate exposures be treated under several regulatory treatments (A-IRB, F-IRB, SA) it will no longer be possible for originating banks to explain to investors and rating agencies, the historical performances of the securitized portfolios (loss rates, exposures...) which will follow different origination, pricing, monitoring procedures once their regulatory treatments start diverging. We think this increase in inconsistency and complexity contradicts with the Committee’s objectives of simplicity & comparability, and will result in an increased cost of securitizations (and thus increased borrowing costs for the end user).

We note that the Committee has not included in the ad hoc QIS exercise any impact assessment on the securitization portfolios.

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<sup>12</sup> International Convergence of Capital Measurement and Capital Standards, June 2006 § 241

## **g. Counterparty Credit Risk (CCR) and CVA**

### **Linkage between Internal Model Method (IMM) for Counterparty Credit Risk and IRB**

We note that footnote 10 of the consultation paper (BCBS d362) explicitly disconnects the use of IMM from the risk weight approach: *“The proposals set out in this section to require the use of the standardized approach to calculate credit risk for exposures to certain counterparties, do not preclude the use of IMM to estimate the exposures to these counterparties.”*

This is at odds with the second consultative paper (BCBS d347) on the Revisions to the Standardized Approach for credit risk (SA-CR) that foresees the ban of IMM use for counterparties subject to a mandatory SA risk weight.

We seek confirmation that BCBS d362 overrules BCBS d347 with respect to the articulation between EAD approaches and risk weight approaches. We see no rationale for binding the permission to model the exposures to the risk weight approach, the former being a measure of the amount at risk over the risk horizon and the latter an assessment of the counterparty’s creditworthiness.

The Committee’s intent to limit the use of the IRB approach for low default portfolios partly relies on the lack of observations to properly calibrate IRB model parameters for such counterparties. We advocate that such considerations are irrelevant in the context of exposure modelling. We believe that the ban of IMM for counterparties dealt under SA-CR would be highly detrimental to the risk sensitivity of the overall risk framework and would provide wrong incentives for banks willing to implement sound risk management practices.

### **Application of a floor to the IMM-CCR**

The SA-CCR is a standardized approach for counterparty credit risk that has been designed and calibrated to be relevant and conservative on the whole portfolio of counterparty credit risk exposures, not at netting level. Indeed a single netting set counterparty credit risk exposure under SA-CCR may be excessively aggressive or conservative compared to what it could be as internal models show. Hence flooring IMM-CCR at netting set level may actually, depending on the floor level, lead to an overall CCR exposure higher with the floored IMM than with SA-CCR! Consequently, if there should be a floor, and we are not supportive of this requirement, it could only happen at the bank overall counterparty credit risk exposure level.

Illustrations of netting sets where SA-CCR leads to overly low or high exposure amount:

- Example 1: A netting set containing two transactions, a vanilla long put transaction and a vanilla long call transaction for the same quantity, same stock, same maturity and same strike (i.e. a portfolio equivalent to a straddle).  
If the underlying stock price is close to the strike, the portfolio delta will be close to zero and so will the SA-CCR exposure amount since no other Greek risk are captured. On the other hand, an IMM will adequately capture the portfolio non-linear payoff and results in an accurate much large CCR exposure amount.

In this example, flooring with SA-CCR exposure amount will have no impact as the IMM exposure will be much higher.

- Example 2: A portfolio made of 3 FX forwards, USD/AUD, AUD/JPY and JPY/USD for the same amount and expiry date.  
The SA-CCR exposure amount will be large as the add-on is calculated per currency pair while the IMM exposure amount will be little as exposures are flat on each currency and, rightfully so, only some basis risk will be materialized.

In this example, the IMM exposure amount will strongly and unduly be inflated by the floor based on the SA-CCR exposure amount.

## **Removal of IMA-CVA / CVA risk framework improvements**

We take note of the Committee's intent to remove IMA-CVA from the revision of the CVA risk framework. We deplore the lack of dialogue with the industry ahead of this proposal and fear that the revised CVA risk framework – if kept unchanged – will lack risk sensitivity. We understand that the Committee doesn't intend to conduct any other consultation before finalization of the review. However, we believe that the proposed framework as is suffers major weaknesses. We would like to engage into a constructive dialogue with the Committee to address key outstanding issues.

Our key concerns are:

### **1. Gap between Regulatory CVA and Accounting CVA**

As already outlined in the answer to BCBS d325 consultation, we believe that capitalizing a hypothetical Regulatory CVA distinct from the true accounting CVA distorts the essential link between economic risk and capital, leaving banks to decide on whether to manage their P&L volatility or their capital base volatility which is not a desirable outcome. We acknowledge the new proposed definition of Regulatory CVA reduces the gap between current Basel 3 definition of Regulatory CVA and accountings CVA. However, we believe further alignment can be achieved in particular with respect to the covered perimeter (e.g. SFTs) or model parameters requirements (e.g. both secured and unsecured derivatives exposures are attributed the same recovery rate).

### **2. SA-CVA lack of risk-sensitivity**

Of key importance is the improvement of SA-CVA which is being upgraded from IMA-CVA fallback to a preferred approach for advanced banks as a consequence of IMA-CVA withdrawal.

**We urge the Committee to improve SA-CVA risk sensitivity in particular with respect to the recognition of proxy hedges and the calibration of IR and FX capital charges.**

SA-CVA fails to adequately recognize proxy-hedging which is yet one of the stated objective of the Basel review of the CVA risk framework. For the sake of illustration, let us consider the following portfolio:

- A CVA CS01 position of +1000 on a IG local government (bucket #2) with no liquid CDS,
- A CDS hedge on the corresponding Sovereign (bucket #1) generating a -1000 CS01.

Based on calibrations enclosed in the instructions of the Basel QIS on the CVA review<sup>13</sup>, we find that:

- The unhedged CVA position would generate a capital charge of +15 under option 1 for liquidity horizons,
- The hedged position would generate a capital charge of +19.12.

This example simply illustrates that hedges commonly used by CVA desks are actually likely to generate a higher capital charge than if the CVA exposure remains unhedged which is highly undesirable. The same

<sup>13</sup> [https://www.bis.org/bcbs/qis/instructions\\_CVA\\_QIS.pdf](https://www.bis.org/bcbs/qis/instructions_CVA_QIS.pdf)

holds for a CVA exposure on a counterparty with no available CDS hedged by an index CDS. The non-recognition of proxy hedging is due to the cumulative effect of:

- (1) The impossibility to net – even partially – the CVA credit spread sensitivity stemming from an illiquid counterparty and the proxy hedge sensitivity because both sensitivities are mapped to different risk factors
- (2) Aggregation rules inter buckets that fail to recognize potential diversification effects across buckets and overly conservative correlation levels (both intra and inter buckets). Regarding the calibration of correlation across tenors of a given CDS curve, we would like to point out that hedges are often done at 5Y because only the 5Y CDS is liquid. The 65% correlation across tenors of a same curve largely underestimates the correlation effectively observed between different tenor series referencing the same name.

**We recommend that the Committee:**

- **Enables the netting of credit spread sensitivities on illiquid counterparties and related proxy hedges sensitivities while constraining the netting recognition by ranking the disallowance factor (R) depending on the quality of the proxy hedge. We remain at the Committee’s disposal to provide further support**
- **Reviews correlation assumptions on credit spread risk factors (across tenor for a single counterparty, across counterparties belonging to the same bucket and across buckets).**

We believe that the calibration of IR and FX capital charges under SA-CVA is too conservative with risk weights largely overstated and correlations not granular enough. In that respect, we would welcome the opportunity to provide additional evidence that the risk sensitivity of SA-CVA can be further improved.

### 3. BA-CVA over conservativeness

We finally reiterate our view that BA-CVA, as is, doesn’t constitute a credible fallback to SA-CVA. Among other drawbacks, we note that:

- The risk weights proposed in BCBS d325 lead to disproportionate capital charges as evidenced by the first quantitative impact study conducted by the Committee.
- Risk weights insufficiently reflect creditworthiness of counterparties. Indeed, under the current BA-CVA proposal a AAA-rated counterparty would be attributed the same risk weight as a BBB-rated counterparty belonging to the same risk bucket which jeopardizes the risk sensitivity of the approach. Risk weights granularity should be increased to better reflect counterparties’ creditworthiness.

We appreciate that the calibration of BA-CVA is still work in progress and are committed to supporting the Committee in its recalibration.

## 6. IRB parameters

### a. Exposure measurement: alignment with financial statements should be confirmed

The Committee proposes to define Unconditionally Cancellable Commitments as *“any contractual arrangement that has been offered by the bank and accepted by the client to extend credit, purchase (...)”*; if we appreciate the Committee’s initiative to improve the definition of commitment, we think that this proposal deserves to be completed with its accounting treatment in order to maintain the principle of alignment between accounting and risk, a key element insuring the reliability and completeness of RWA calculations.

Thus we propose the following definition: *“commitment means any contractual arrangement that has been offered by the bank and formally accepted by the client to extend credit, purchase assets or issue credit substitutes and that is reported in the financial reporting”*.

### **Modelling issues on Credit Conversion Factors**

The twelve-month horizon approach was introduced in the CEBS 2006 Guidelines<sup>14</sup> when dealing with the estimation of the conversion factor. However, it is not the only approach which is advocated. The guidelines specify:

303. Institutions should ensure that the points in time chosen for the calculation of realized CCF in the Reference Data Set are appropriate for a one year horizon for estimating CCFs. This might require considering sets of different time intervals preceding the time of default.

- Cohort approach. The observation period is subdivided into time windows. For the purpose of realized CCF calculations, the drawn amount at default is related to the drawn/undrawn amount at the beginning of the time window.

304. When using this approach, the institution shall use a cohort period of one year unless it can demonstrate that a different period would be more conservative and more appropriate.

- Fixed horizon approach. The drawn amount at default is related to the drawn/undrawn amount at a fixed time prior to default. This approach implies the simplifying assumption that all exposures that will default during the chosen horizon will default at the same point in time: the end of the fixed horizon.

305. When using this approach, the institution shall use a fixed horizon of one year unless it can demonstrate that another period would be more conservative and more appropriate.

- Variable horizon approach. This is a generalization of the fixed time horizon. It consists of using several reference times within the chosen time horizon rather than one (for example, comparing the drawn amount at default with the drawn amounts at one month, two months, three months, etc. before default)
- Momentum approach. Some institutions have traditionally expressed Conversion Factors in their internal systems as a percentage of the total outstanding limit (total limit ratio), and not of the undrawn amount. Institutions that use this approach have no intrinsic need to decide on a reference point in time prior to default, since the drawn amount at the time of default is compared only to the total limit at the time of default.”

As for fixed horizon approach, the guidelines specify that it implies that “the simplifying assumption that all exposures that will default during the chosen horizon will default at the same point in time: the end of the fixed horizon”. Therefore, transactions with maturity less than one year could not be captured in this approach. CCF’s variability is closely linked to the structure of corresponding off-balance sheet products.

**A one-size-fits-all approach cannot work for very different portfolios and / or products. For instance:**

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<sup>14</sup> <https://www.eba.europa.eu/documents/10180/16094/GL10.pdf>

- CCFs on specialized lending, on the basis of observed data, should be below the low end of the Revised Standardized Approach proposal of BCBS, (50%-75%).
- Short-term letters of credit such as encountered in trade finance compared to revolving facilities which maturity and drawing profile differ from one another –a twelve-month horizon approach will thus not imply harmonization of CCFs. We propose to maintain a larger definition, in accordance with the CEBS guidelines specifications, in order to keep an estimation of CCF consistent with its economic understanding.

#### **b. Actual maturity should be maintained under IRB Foundation in any case**

The application of the F-IRB approach implies the application of a fixed maturity at 2,5 years. This will imply, for a given PD and LGD, a unique risk weight whatever the maturity of the exposure and thus reduce the risk sensitivity of the IRB formula. We think that the removal of the actual maturity for those exposure classes subject to the foundation approach will not solve the variation in risk weighted assets; given the absence of any internal model for the calculation of the maturity we suggest to the Committee to maintain the use of the actual maturity for portfolios treated under the F-IRB.

#### **c. Input floors**

The granularity of the floors matters: we understand it can only be applied at consolidated level, in order to avoid unwarranted impact of input floors which may severely hit some local portfolios but remain relatively diluted at a consolidated level

Since the Committee aims at “not significantly increasing capital requirements” and since the US are already mostly constrained by the SA, we understand (and ask confirmation) that capital requirements in the various individual economic zones (Japan, Europe...) should not increase either.

One of the issues of BCBS 362 is the rationale behind the proposed parameter floors:

- PD floor: one question is about the sentence on page 6 “*PD floors address the problem that in low-default portfolios, a large number of observations are needed to give confidence in the estimated PD*”. Is this sentence contradictory to the argument to remove IRB for low-default portfolios? As pointed out in page 3, “*banks, other financial institutions and large corporate are usually considered to be low-defaults exposures, which, as described above, makes reliable parameter estimation difficult.*” Then, adding a PD floor is perhaps unnecessary if the use of internal PD estimates becomes forbidden for low-default portfolios. Secondly, at which level is the PD parameter floor of 5bps applied? At grade level?
- LGD floor: what is the rationale behind the segmentation secured Vs unsecured? Indeed, it is an important risk driver but it is not the only one in the literature: other risk drivers which characterize loans can be tested. It is well-known that seniority (Schuermann 2004), geographic region (Araten 2004, Gupton 2005), facility type (Khieu *et al.* 2012), industry (Schuermann 2004, Dermine and Carvalho 2005), loan size and also guarantees (Dermine and Carvalho 2005), are other important risk drivers and could decrease LGD below 25% even for unsecured loans. Besides, as pointed out by Dermine and Carvalho (2005), collateral could be also a signal of a client with a greater risk.

In addition, we understand (based on QIS indications) that LGD floors should be applied at transaction level. So far, the LGD floor on mortgage exposures was checked at portfolio level, which was in line with retail calibration techniques (at pool level). We disagree with the application of a floor at exposure level, which would contradict the outcome of the recovery procedures (some recovery processes result in

economic gains, and the regulatory LGD is a combination of gains on some workouts, and losses on others). This characteristic should be taken into account, and any potential floor be applied at the end of the process.

#### **d. Definition of default**

While it is recognized that the definition of default is subject to various interpretation and applications by supervisors and banks, and is an important source of variation of RWA, the Committee does not take advantage of this consultation to propose an improvement of this definition. As a reference, the European Banking Authority has produced a 60 pages consultative paper to propose a harmonized definition of default across European Banks.

#### **e. Rating system**

The Committee recommends that *“Rating systems should be designed in such a way that assignments to rating categories generally remain stable over time and throughout business cycles. Migration from one category to another should generally be due to idiosyncratic or industry-specific changes rather than due to business cycles.”*

**Migration from one risk category to another is generally due to idiosyncratic risk but can very legitimately be due to business cycles as well**

Especially on retail exposures, rating stability objectives shouldn't be more important than risk sensitivity. Idiosyncratic changes can lead to rating migration that can be useful in risk management decision processes. If the main concern of the Committee is RWA stability, the best indicator is the stability of rating distribution through time and not the stability of individual rating assignment. Risk levels evolve with the economic cycle: these differences are necessarily reflected either by portfolio's population migrating between risk classes or ratings or by increasing and decreasing default or loss rates within risk classes or ratings - mostly even both (migration and increasing/decreasing default or loss rates). **It is therefore not realistic to ask for a stable population between risk classes or ratings and for stable default or loss rates for the risk classes or ratings.**

Secondly, especially when we look at high default portfolios, we rely on behavioral variables which are often very discriminant. Their use necessarily implies a certain level of migrations between risk classes or ratings as the behavior of counterparts is not constant over time.

#### **f. LGD floors do not reflect reality, especially on leasing business**

The proposed framework would result in less sensitivity to the maturity and lifecycle of a contract (in leasing, close to maturity LGDs are often lower). It would also compromise traditional sound risk assessment and management practices such as risk appetite exercises, where the low LGD pattern of some activities is taken into account (for instance to forecast and benchmark the expected loss against other portfolios).

More particularly, we would like to emphasize the specificities of the Equipment Finance industry. This segment is very specialized and players have high knowledge of the equipment and dedicated processes for collecting and selling equipment from defaulted counterparts. The liquidity and future price of the asset is a key assessment point in the credit granting and risk management process. A large share of the equipment finance industry consists of leasing, where the lessor is the owner of the asset. This simplifies the re-sale and reduces the time from default to realized losses. In addition, a large share of defaults with

negative losses is observed, i.e. a gain after a default. For a large share of the asset groups, the observed LGDs are much lower than the proposed floors: this was observed even at the height of the financial crisis. Estimated LGDs, with an additional margin of prudence on top of the observed downturn to take into account even worse scenarios, are still below the proposed floors.

Low LGD level is an integral part of the business case for the Equipment Finance industry, which makes it possible to provide financing to companies that would normally not get traditional bank financing. This makes this industry an important player in the SME market (supporting the real economy). Applying a very conservative floor on the LGD, without considering the total risk of PD and LGD together, leads to unduly conservative estimates. Applying the proposed floor will drastically increase the capital requirements for the SME market. This can lead to shifting investments to markets with higher return on equity and thus significantly reduce the liquidity for the SME market in Europe.

Finally we understand that input floors only concern performing assets. The treatment of defaulted assets is specific and requires a comparison with provisions. We would not understand that an adequate level of reserves (i.e. provisions close to LGD on defaulted assets, and RWA close to 0 for these assets) could be annihilated by LGD floors, resulting in a significant and unwarranted RWA requirement. A clarification of the floor perimeter would be welcome.

To summarize:

- The new proposed hair-cut added to the new LGD floor for physical collaterals, including leasing/equipment finance industry, seem far too high.
- We think that the consultation lacks guidance on how LGD floor and downturn components are interrelated, which may result in potentially double counted capital requirements.

## **7. Credit Risk Mitigation**

### **a. Treatment of unfunded guarantees**

The treatment of credit risk mitigation (unfunded guarantees) for “cross portfolio” exposure is not defined in the consultation. For instance how to take into account a guarantee received from an insurance company or a bank for a midcap corporate treated under the IRB? Should we apply the SA or the IRB approach?

We note that the QIS instructions - §482 (i)<sup>15</sup> - states that *“In case the bank applies the standardized approach to direct exposures to the guarantor it must assign the standardized approach risk weight to the covered portion of the exposure”*. We consider that this proposal is not appropriate in the context of the application of the revision of the IRB.

Moreover § 482<sup>16</sup> of Basel II states that *“In no case can the bank assign the guaranteed exposure an adjusted PD or LGD such that the adjusted risk weight would be lower than that of a comparable, direct exposure to the guarantor.”* Since a wide majority of the eligible guarantees are issued by financial

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<sup>15</sup> Additional guidance for completing the IRB quantitative impact study May 2016  
[https://www.bis.org/bcbs/qis/biiiimplmoninstr\\_addguideirb\\_may16.pdf](https://www.bis.org/bcbs/qis/biiiimplmoninstr_addguideirb_may16.pdf)

<sup>16</sup> See also § 301 of Basel II *International Convergence of Capital Measurement and Capital Standards*, June 2006  
<http://www.bis.org/publ/bcbs128.htm>



institutions (banks or insurance companies), all exposures subject to these guarantees will be capped by a risk weight determined under the Standardized Approach, which, by definition is not comparable to a risk weight under the IRB approach and more conservative in practice.

We think that the § 482 was introduced to neutralize any effect of the double default in the IRB framework; having said that § 482 does not make sense in the context of a guarantee provided by a counterparty treated under the Standardized Approach.

**The Basel Committee should confirm that banks can still take into account the effect of the guarantee under the advanced approach without the obligation to apply the substitution approach as described in § 482 (i) and that the § 482 (cap to the risk weight of the guarantor) should be removed when the protection provider is to be treated under the Standardized Approach.**

**It should also be clarified** that given the existence of a guarantee, the bank will apply the lower risk weight between the exposure and the guarantor since it is always possible not to recognize a guarantee, as stated in § 301 of Basel II framework. This may jeopardize the proper consideration of efficient credit risk mitigation techniques for banks and would lead to a less risk-sensitive approach of credit risk monitoring.

#### **b. Recognition of physical and financial collateral**

**The new proposed haircuts added to the new LGD floor for physical collaterals are far too high**

With a LGD secured set at 20%, a €100M loan to a corporate secured by a mortgage on a €200M commercial real estate property will result in a €80M recovery, i.e. : the Committee assumes that the value of the property will drop by 60% in a downturn scenario. In practice the Committee is assuming that whatever the overcollateralization, the recovery rate will be always capped at 80/85% which is obviously false for amortized loans on their last years of amortization.

We urge the Committee to review the calibration of the haircuts to physical collaterals or to avoid the double effect of the hair-cut cumulated to the LGD floor.

#### **Financial collaterals**

Concerning CRM using equities as collateral, we welcome the Committee's approach of harmonizing the use of haircuts, however this does not compensate the negative impact of abandoning internal model used for a majority of Corporates on specific businesses using equities as collateral.

In the EU, the "Technical standards on main indices and recognized exchanges under the capital requirements (28/01/2016)" drafted by ESMA, indicate liquidity as the principal criteria used for selection of main indices. We do believe that this is a key point for analyzing eligibility of collateral: the capacity of the institution to sell the collateral on the market over a certain number of days will determine the quality of the collateral (in addition with correlation analysis).

**The Committee is using fixed haircuts**, based on main indices and recognized exchange. These basic haircuts should face market realities as liquidity is a key point in defining main indices. Unfortunately, due to the context described above, very liquid equities cannot be recognized as eligible due to some missing definitions on recognized exchanges: banks would therefore be in the situation where 2 equities with equivalent parameters could have 2 opposite treatments. Indeed banks are using internal models for this

very matter: the eligibility of equity collateral is an expert based evaluation, and each bank has a different capacity of selling shares on the market.

Most internal models are using one or several of the following parameters to evaluate eligibility:

- Average day trading volume
- Volatility
- Rating of collateral shares
- Market capitalization

Furthermore, this is not a static world: listing recognized exchanges instead of defining them (with criteria such as liquidity) would not allow reactivity.

Therefore we propose to add a definition of non-recognized exchange, sub-categorizing:

- regulated market, where banks can use internal models to evaluate haircuts, or BCBS appreciating another standard haircut
- non-regulated market, being non eligible.

### **Collaterals whose effect is not modelable under the A-IRB**

When banks are not able to model the effects of collateral, they are “permitted” to apply the formula for secured exposure in the F-IRB. The use of recovery estimations based on collateral type and collateral value is widespread for low default portfolios. However it is not as widespread for high default portfolios. As the Basel framework asks for the constitution of homogeneous pools based on discriminant variables, often collateral type and value are two variables out of a bigger set which might not be necessarily retained in the final model. The link between collateral type and value on one hand and the LGD on the other hand is therefore not as direct as the consultation paper seems to suppose.

In its IRB QIS instructions, the Committee states that, under A-IRB Approach, LGD floors to physical collateral should be subject to a 50% hair-cut, but this is not what is stated in the consultative paper: the F-IRB haircuts (and floors) are applicable only to non-determinable collaterals under A-IRB. Therefore we seek confirmation that the 50% haircut should not be applicable under A-IRB.

## Annex 1: Negative impact of consultation proposals for Corporates

### Case Study 1: (illustrative anonymized case study)

|                           |                                                |
|---------------------------|------------------------------------------------|
| Company                   | Large diversified US Corporation               |
| External Rating           | AA                                             |
| 1Y Probability of default | 0.01% - floored at 0.03%                       |
| Senior Unsecured LGD      | 40%                                            |
| Total Balance Sheet Size  | USD 500 bn                                     |
| Annual revenues           | USD 100 bn                                     |
| Total consolidated debt   | USD 200 bn<br>of which 50% via bank facilities |

- 1) **The large diversified US Corporation is requesting the refinancing of its maturing Revolving Facility with a new USD 20 bn syndicated 5 year Revolving Facility, to be used for general corporate purposes.**
- 2) The US Corporation is also requesting a bilateral 364 days revolving facility for EUR 200M for one of its unrated French subsidiary.
- 3) In addition the bank is putting in place an uncommitted receivable purchase facility, in order to accommodate recurring requests from subsidiaries of this Corporation to purchase receivables. While this framework is centrally approved, any receivable purchase opportunity will need to be approved by a specific risk committee.

#### 1. New syndicated 5Y Revolving Facility

|                                                 |                                              |
|-------------------------------------------------|----------------------------------------------|
| Counterparty                                    | Large US Corporation                         |
| Notional amount                                 | USD 20 bn undrawn                            |
| Maturity                                        | 5 years                                      |
| Current Standardized CCF                        | 50%                                          |
| Average RW under current A IRB approach         | 15.8% <sup>17</sup>                          |
| <b>Average RWA under current A IRB approach</b> | <b>15.8% x 50% x USD 20 bn = USD 1.58 bn</b> |
| Future Standardized CCF                         | 75%                                          |
| <b>RWA under future approach</b>                | <b>20% x 75% x USD 20 bn = USD 3 bn</b>      |
| <b>Increase in RWA under new approach</b>       | <b>+90%</b>                                  |

<sup>17</sup> 15.8% is the average RW each year: 24.4% year 1 (5-year maturity); 20.1% year 2 (4-year maturity); 15.8% year 3; 11.5% year 4 and 7.1% year 5

## 2. Bilateral 1Y Revolving Facility

|                                              |                                                                                                         |
|----------------------------------------------|---------------------------------------------------------------------------------------------------------|
| Counterparty                                 | French Subsidiary of Large US Corporation<br><br>Unrated externally<br><br>No explicit parent guarantee |
| 1Y Internal Probability of default           | 0.10%                                                                                                   |
| SU LGD of the subsidiary                     | 55%                                                                                                     |
| Notional amount                              | EUR 200M undrawn                                                                                        |
| Maturity                                     | 364 days                                                                                                |
| Current Standardized CCF                     | 20%                                                                                                     |
| RW under current A IRB approach              | 24.2%                                                                                                   |
| <b>RWA under current A IRB approach</b>      | <b><math>24.2\% \times 20\% \times 200M = \text{EUR } 9.7M</math></b>                                   |
| Future Standardized CCF                      | 75%                                                                                                     |
| <b>RWA under future approach</b>             | <b><math>100\% \times 75\% \times 200M = \text{EUR } 150M</math></b>                                    |
| <b>Increase in RWA under new approach</b>    | <b>+ 1450%</b>                                                                                          |
| <i><b>RWA once the facility is drawn</b></i> |                                                                                                         |
| <b>RWA under current A IRB approach</b>      | <b><math>24.2\% \times 200M = \text{EUR } 48M</math></b>                                                |
| <b>RWA under future approach</b>             | <b><math>100\% \times 200M = \text{EUR } 200M</math></b>                                                |
| <b>Increase in RWA under new approach</b>    | <b>+317%</b>                                                                                            |

## 3. Uncommitted receivable purchase facility

|                                           |                                                                     |
|-------------------------------------------|---------------------------------------------------------------------|
| Counterparties                            | US Subsidiaries of Large US Corporation<br><br>Unrated externally   |
| 1Y Internal Probability of default        | between 0.10% and 0.25%                                             |
| SU LGD                                    | 45%                                                                 |
| Notional amount                           | Up to USD 100M                                                      |
| Maturity                                  | Up to 2 years                                                       |
| Current Standardized CCF                  | 0% (as uncommitted)                                                 |
| <b>RWA under current A IRB approach</b>   | <b><math>0\% \times 100M</math></b>                                 |
| Future Standardized CCF for UCC           | 75%                                                                 |
| <b>RWA under future approach</b>          | <b><math>100\% \times 75\% \times 100M = \text{USD } 75M</math></b> |
| <b>Increase in RWA under new approach</b> | <b><math>\infty</math></b>                                          |

**Conclusions:**

- Even though this large US Corporation has access to bond market to fund over 50% of its long term debt, it still requires access to bank funding for general corporate purposes. This bank funding is even more necessary for its smaller subsidiaries that cannot access the bond market.
- The “IRB review” proposals would result in an increase in RWA, and related commitment fees for revolving credit facilities, ranging from +90% to over +1500%.
- If/when the subsidiary draws on the facility, Exposure at Default will be 100%. This will remove the bias of the change in CCF, while still multiplying RWA by 4.
- Global envelope put in place by the bank to be able to quickly address any request from a subsidiary for local receivable purchase are akin to Unconditional Cancellable Commitment (UCC). Under new Basel proposals, such UCC would require credit RWA, where there were none previously. The bank would then have to charge some fees for this envelope, whereas the US Corporation was not made aware of the size of the envelope and consequently could not secure this facility.
- Therefore the new Basel rules affect directly the financial cost supported by corporates, whether large or small, and consequently their net profit, their financial strength and competitiveness to win export contracts.

**Case Study 2:** *(illustrative anonymized case study)*

|                                    |                            |
|------------------------------------|----------------------------|
| Company                            | Large European Corporation |
| External Rating                    | BB                         |
| Internal 1Y Probability of default | 1.5%                       |
| Internal SU LGD                    | 45%                        |
| Total Balance Sheet Size           | EUR 60 bn                  |
| Annual revenues                    | EUR 55 bn                  |

**This large European Corporate benefits from a syndicated credit facility for the amount of €3.0 billion. It comprises:**

- 1) a €2.0 billion five-year tranche and**
- 2) a €2.0 billion three-year tranche.**

**1. Syndicated Revolving Facility 5Y tranche**

|                                                 |                                                                                                       |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Notional amount                                 | EUR 2bn undrawn                                                                                       |
| Maturity                                        | 5 years                                                                                               |
| Current Standardized CCF                        | 50%                                                                                                   |
| Average RW under current AIRB approach          | 118.7%                                                                                                |
| <b>Average RWA under current A IRB approach</b> | <b><math>118.7\% \times 50\% \times \text{EUR } 2 \text{ bn} = \text{EUR } 1.19 \text{ bn}</math></b> |
| Future Standardized CCF                         | 75%                                                                                                   |
| <b>RWA under future approach</b>                | <b><math>100\% \times 75\% \times \text{EUR } 2 \text{ bn} = \text{EUR } 1.50 \text{ bn}</math></b>   |
| Theoretical decrease in RWA under new approach  | <b>+26%</b>                                                                                           |

**2. Syndicated Revolving Facility 3Y tranche**

|                                                       |                                                                                                       |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Notional amount                                       | EUR 2bn undrawn                                                                                       |
| Maturity                                              | 3 years                                                                                               |
| Current Standardized CCF                              | 50%                                                                                                   |
| Average RW under current AIRB approach                | 105.1%                                                                                                |
| <b>Average RWA under current A IRB approach</b>       | <b><math>105.1\% \times 50\% \times \text{EUR } 2 \text{ bn} = \text{EUR } 1.05 \text{ bn}</math></b> |
| Future Standardized CCF                               | 75%                                                                                                   |
| <b>RWA under future approach</b>                      | <b><math>100\% \times 75\% \times \text{EUR } 2 \text{ bn} = \text{EUR } 1.50 \text{ bn}</math></b>   |
| <b>Theoretical increase in RWA under new approach</b> | <b>+43%</b>                                                                                           |

- The new standardized approach will assign the same 100% risk weight to the 3Y and 5Y facilities, whereas internal approach discriminates between the two, assigning on average 119% RW to the 5Y facility and 105% RW to the 3Y facility.
- If/when those 2 facilities are drawn (which is frequent for such a sub-IG corporation), Exposure at Default will be 100% in the current case and in the future. This will remove the bias of the change in CCF, and make the lack of risk sensitivity quite apparent, with a reduction of 5% to 19% of the RW for a BB company under A-IRB approach when moving to a standardized approach.

**The following year, this European Corporation reduces its asset size by continuing some of its operations through a partnership, for a total of EUR 15bn. Its asset size is then reduced to EUR 45bn. Being under the EUR 50 bn asset threshold, RWA then need to be calculated using the foundation approach.**

#### **1. New RW Syndicated 5Y Revolving Facility**

|                                                                                                                  |                                                                                   |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Notional amount                                                                                                  | EUR 2bn undrawn                                                                   |
| Maturity                                                                                                         | 5 years                                                                           |
| Future Standardized CCF                                                                                          | 75%                                                                               |
| <b>RWA under future standardized approach pre asset reduction</b>                                                | $100\% \times 75\% \times \text{EUR } 2 \text{ bn} = \text{EUR } 1.50 \text{ bn}$ |
| <b>New RW post asset reduction</b><br>Based on foundation approach<br>(1.5% 1Y PD, Fixed 2.5Y maturity, 45% LGD) | $112\% \times 75\% \times \text{EUR } 2 \text{ bn} = \text{EUR } 1.68 \text{ bn}$ |
| <b>Theoretical increase in RW post asset reduction</b>                                                           | <b>+12%</b>                                                                       |

#### **2. New RW syndicated 3Y Revolving Facility**

|                                                                                                                  |                                                                                   |
|------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|
| Notional amount                                                                                                  | EUR 2bn undrawn                                                                   |
| Maturity                                                                                                         | 3 years                                                                           |
| Future Standardized CCF                                                                                          | 75%                                                                               |
| <b>RWA under future standardized approach pre asset reduction</b>                                                | $100\% \times 75\% \times \text{EUR } 2 \text{ bn} = \text{EUR } 1.50 \text{ bn}$ |
| <b>New RW post asset reduction</b><br>Based on foundation approach<br>(1.5% 1Y PD, Fixed 2.5Y maturity, 45% LGD) | $112\% \times 75\% \times \text{EUR } 2 \text{ bn} = \text{EUR } 1.68 \text{ bn}$ |
| <b>Theoretical increase in RW post asset reduction</b>                                                           | <b>+12%</b>                                                                       |

#### **Conclusions:**

- When a non-IG corporate decreases its asset size below the 50bn€ threshold, (a move which should be welcome from a risk management point of view) the move to the Foundation approach, more risk sensitive, will increase the RW, whatever the maturity of the transaction.
- Pricing will have to be increased despite the reduction in leverage of the company. This inconsistency does not result from the more risk sensitive approach but from the Standardized Approach applied before deleveraging.

**Case Study 3: (illustrative anonymized case study)**

|                          |                                         |
|--------------------------|-----------------------------------------|
| Company                  | French SME exporter of sports equipment |
| Headcounts               | 38 people                               |
| Total Balance Sheet Size | € 20 000 000                            |
| Annual revenues          | € 3 500 000                             |

- ⇒ **A French exporter enters into an important contract with a Moroccan company to provide sports equipment. This contract amounts to EUR 2 million and the delivery period is 12 months.**

As part of this market, commercial parties agreed on the following financial conditions:

i) A bank guarantee in the form of an **Advance payment guarantee** to be issued on behalf of the French exporter in favor of his client for 15% of the contract (€ 300,000) with 6 months validity (*this guarantee aims to ensure the client/importer a refund of all or part of the downpayment he could have pay to the exporter for any breach of its contractual obligations*);

ii) A bank guarantee in the form of a **Performance guarantee** to be issued on behalf of the French exporter in favor of his client for 15% of the contract (€ 300,000) with 12 months validity (*it aims to guarantee the customer against the failure by the exporter to perform its contractual obligations*);

iii) A **Documentary credit** of 12 months for the payment of the whole commercial contract, opened by a Moroccan bank, which will be "confirmed" by the French bank of the exporter (through such "confirmation", *the French bank agrees to pay the French exporter in case of failure to pay of the importer or the Moroccan bank as soon as the equipment was properly delivered to the importer in Morocco*). Financial conditions unchanged under revised IRB.

- ⇒ **The French exporter therefore contacts a French bank to provide the financial services required for this operation, and to know their respective costs.**

**i) 6 months advance payment guarantee**

|                                                                                      |                                         |
|--------------------------------------------------------------------------------------|-----------------------------------------|
| Counterparty                                                                         | French SME exporter of Sports equipment |
| Notional amount                                                                      | € 300,000 (15% of the contract)         |
| validity                                                                             | 6 months                                |
| Current risk fee (based on 20% CCF)                                                  | 1.50% prorata temporis, i.e. € 2.250    |
| "IRB reviewed" risk fee (based on <u>50% CCF</u> ) leading to the same profitability | 3.75% prorata temporis, i.e. € 5.625    |
| <b>"IRB reviewed" impact for the French SME exporter of Sports equipment</b>         | <b>+ € 3.375</b>                        |



|                           |               |
|---------------------------|---------------|
| <b>Cost increase in %</b> | <b>+ 150%</b> |
|---------------------------|---------------|

**ii) 12 months performance guarantee**

|                                                                              |                                         |
|------------------------------------------------------------------------------|-----------------------------------------|
| Counterparty                                                                 | French SME exporter of Sports equipment |
| Notional amount                                                              | € 300,000 (15% of the contract)         |
| Validity                                                                     | 12 months                               |
| Current risk fee (based on 20% CCF)                                          | 1.50% prorata temporis, i.e. € 4.500    |
| "IRB reviewed" risk fee (based on 50% CCF) leading to the same profitability | 3.75% prorata temporis, i.e. € 11.250   |
| <b>"IRB reviewed" impact for the French SME exporter of Sports equipment</b> | <b>+ € 6.750</b>                        |
| <b>Cost increase in %</b>                                                    | <b>+ 150%</b>                           |

**Conclusions:**

- The "IRB reviewed" proposals would result in an additional cost of + € 10.125 compared to the current conditions for the financial services necessary to ensure the success of the commercial contract of this French exporter;
- In other words, while the financial cost is 0.34% of the total contract today for the French exporter, this cost would increase to 0.84%;;
- Therefore the new Basel rules affect directly the financial cost supported by SME exporters, and consequently their net profit, their financial strength and competitiveness to win export contracts.

## **Annex 2: Object, project and commodity finance, and IPRE**

We would like to take this opportunity to recall that given their low risk profile in nature, Specialized lending structures (typical in project and object finance) are the most common financing tool in these activities. The use of such specialized lending schemes is key in supporting productive investment, object and infrastructure financing.

Some key figures and facts:

- Aircraft finance: estimated in 2015 at 122 billion dollars worldwide, out of which 34,1 billion financed by commercial banks, i.e. 28 % (source: Boeing study, December 2015).
- Rail finance is at a turning point with an on-going deregulation in Europe and specialized lending also remains a favorite financing scheme in the US. Vast demand for new money exists in both markets to fund the rolling stock, as the ageing fleet must be replaced. Additionally, high sovereign debt limits public budgets for rail investment, as governments are reducing the budget of public operators.
- Shipping: the manufacturing of new vessels amounts to an underlying new-building market valued in three-digit billions of dollars (about USD 100-125 billion per annum) and the annual sale-and-purchase activity amounts to a notional of one-fifth to one-fourth of such amount.
- Infrastructure investments are massive (in 2015: 310 billion dollars worldwide, out of which 278 billion dollars for loans and 76 billion in Europe, source: Project Finance International, 27 January 2015). They therefore require a dedicated prudential treatment maintaining a risk sensitive approach and giving particular consideration to the characteristics of their financing structure.
- Commercial Real Estate IPRE: estimated in 2015 at USD 750 bios of direct investments worldwide, giving to CRE the first asset class position in the world in terms of volumes invested.

The Basel package, which implies higher RWAs for a same transaction/project, would have a detrimental impact (increase of pricing and/or credit crunch) on several key sectors of the economy and ultimately of course on the employment rate of these sectors:

- Construction sector as suppliers for the developers,
- Residential sector: developers would not be keen to launch new residential projects if such projects would be unaffordable in terms of costs whereas there is a crucial lack of dwellings in France,
- Commercial real estate sectors: offices, retail assets, logistics and hotels are also key sectors for the economy and essential for the development of big companies (offices), household consumption (retail), import/export activity (logistics) and business/tourism activity (hotels).

Hereunder are short descriptions of the main characteristics of Specialized lending.

### **Object Finance**

Generally, object finance loans are secured by liquid and valuable assets, which generate cash flows over the long term. Aircrafts financed are wide body, narrow body and regional aircrafts. The Object Finance loans don't include private jet aircraft financing. Vessels financed in the Shipping SL category comprise dry-bulk, tankers – crude/product/chemicals, container boxes carriers, LNG/LPG gas carriers, offshore services, cruise vessels, but don't include pleasure ships bought by individuals.

The structure of the financing enables lenders to control the asset and the cash flows generated, generally through an isolation of the loan and the asset financed in an SPC (Special Purpose Company), and/or a direct security in the asset, and the assignment of the lease contract or of the time-charter contract or

earnings, and of insurances. Lenders benefit from several layers/cushions: conservative Loan to Values, and loan terms typically much shorter than the asset life, which enables to postpone the maturity if needed.

### **Project Finance**

Project Finance loans are secured by valuable cash flows/asset values. They consist in the financing of large long-term infrastructure assets generating sustainable cash flows over the long term.

Assets financed comprise transportation and social infrastructures assets healthcare infrastructures (hospitals), public infrastructures (schools, ministries, police headquarters) and military infrastructures), environmental infrastructures (waste treatment plants, water treatment and desalination plants), natural resources (LNG, Pipeline and storage, oil and gas offshore infrastructures, petrochemicals, refineries, metals plants), telecommunication infrastructures (cable, towers, satellite), power infrastructures (electricity generation (renewable, such as Wind Farms, Solar plants, Biomass Power Plants and conventional power plants (such as gas fired power plants)), transmission /distribution of electricity ). Those assets are generally operated in regulated markets.

The structure and security package enable lenders to control cash flows generated by the asset financed with a security over the asset and/or a pledge over the shares of the borrower, the assignment of contracts (notably off-take and supply contracts) and insurances, and limitations of additional indebtedness, limitations of new investments, of distribution. Lenders benefit from two layers of cushion: a cover of debt service by cash flows above 1, until maturity which enables the borrower to bear periods of lower cash flows. The second layer of cushion lies in the residual asset life after loan maturity, as loans tenors are generally shorter than asset lives, which enables to extend maturity if needed.

### **Commodity Finance**

Commodity Finance covers the financing of the physical supply chains to three primary commodities sectors, namely, “Energy” (Oil & Gas and others), “Metals” (and Minerals), and “Agricultural Products” (Softs and others). It does not include the financing of manufactured products trade. Commodity Finance relates to short term self-liquidating facilities, (i.e. that can well proceed independently of the borrower) and benefit from securities on the commodities financed and on receivables.

### **Real Estate IPRE (Commercial Real Estate)**

Generally, IPRE loans are secured by liquid and valuable assets, generating predictable cash flows (rents). The repayment of the loan is both done both by the cash-flows generated by the asset and by the sale of the asset or the refinancing of the loan. Asset financed comprise offices, retail assets, logistic asset, hotels and residential assets. The structure of the financing enables lenders to control the asset and the cash flows generated, generally through the isolation of the loan and the asset(s) financed in an SPC/SPV (Special Purpose Company/Vehicle), and/or a direct security in the asset (mortgages/pledge of the shares of the borrower), and the assignment of the lease/rent contracts and insurance contracts. Lenders benefit also from several additional layers/cushions: conservative Loan to Values and loan terms typically much shorter than the asset life, which enables to postpone the maturity if needed.

### Annex 3: Specialized lending –harmonization of internal models

This annex may be read in conjunction with the final draft technical standards on specialized lending exposures recently published by the EBA<sup>18</sup>, aiming at harmonizing the assignment of risk weights for banks apply the “supervisory slotting criteria” approach. The annex presents different possible methods of harmonization of IRBA models while:

- addressing the concern of the BCBS regarding too much variability of risk weights between the different IRBA banks,
- keeping IRBA models which are the best way to be risk sensitive and to allocate efficiently capital to transactions.

This would provide a more harmonized framework; it could be viewed as a first attempt to start a debate that may need further discussions or improvements.

#### ➤ Qualitative comparison of models

A straightforward way to harmonize models would be to compare the different criteria and mathematical formulas used in the different models. It would enable to identify the possible sources of differences between the models.

#### ➤ Quantitative comparison of models: direct comparison of risk weights of the different banks on each deal of a common portfolio.

On a portfolio of n deals, common to different banks, Risk Weights, in percentage of EAD, are indicated for each deal of the portfolio as follows:

|        | Bank A          | Bank B          |
|--------|-----------------|-----------------|
| Deal 1 | RW (D1,Bank A)  | RW (D1,Bank B)  |
| Deal 2 | RW (D2, Bank A) | RW (D2, Bank B) |
| ...    |                 |                 |
|        |                 |                 |
| Deal n | RW (Dn, Bank A) | RW (Dn, Bank B) |

*Risk weights expressed in percentage of EAD*

These deals can be classified for Bank A in ascending order. This enable to check whether both banks rank the different deals in a portfolio in the same order or not. Then the proportion of RW applied to the different deals compared to one another can also be calculated and compared between the two banks. Deal 1 RW is used as benchmark.

The proportion of RW of deal n is equal to:  $RW(Dn, Bank A) / RW(D1, Bank A)$ .

The proportions of RW on the different deals are calculated and classified in ascending order for Bank A and compared to those of Bank B. This allows to check the consistency of the models of two banks.

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<sup>18</sup> <https://www.eba.europa.eu/regulation-and-policy/credit-risk/regulatory-technical-standards-on-specialised-lending-exposures>

|        | Bank A          | Proportion of RW Bank A                   | Bank B          | Proportion of RW Bank B                   |
|--------|-----------------|-------------------------------------------|-----------------|-------------------------------------------|
| Deal 1 | RW (D1,Bank A)  |                                           | RW (D1,Bank B)  |                                           |
| Deal 2 | RW (D2, Bank A) | $\text{RW (D2, Bank A) / RW (D1,Bank A)}$ | RW (D2, Bank B) | $\text{RW (D2, Bank B) / RW (D1,Bank B)}$ |
| ...    |                 |                                           |                 |                                           |
| Deal n | RW (Dn, Bank A) | $\text{RW (Dn, Bank A) / RW (D1,Bank A)}$ | RW (Dn, Bank B) | $\text{RW (Dn, Bank B) / RW (D1,Bank B)}$ |

If proportions of risk weights between bank A and Bank B are close for each deal, it means that models are consistent between themselves. It does not mean that they provide the same level of risk weight, as for example for each deal, Bank B could provide risk weights twice as high as those of bank A. This level of risk weight would then have to be analyzed. Thus the comparison of risk weights between banks should be done on a ranking of deals (proportion of risk weight) and on an absolute risk weight level. It would enable to identify banks which risk weights are the most different from others ones, for similar transactions.

This could lead to a recalibration of some internal models which should be done in order to have internal models providing as satisfactory as possible back testing studies (i.e. models providing PD and LGD consistent with observed default rates and historical LGD on the different defaulted deals, taking into account their possible distribution). This would enable to harmonize internal models between themselves.