21 June 2016

Stefan Ingves, Chairman
Basel Committee on Banking Supervision
Bank for International Settlements
CH-4002, Basel
Switzerland

Joint Association’s Comments on the BCBS Consultative Document: Reducing variation in credit risk-weighted assets – constraints on the use of internal model approaches

Dear Mr Ingves,

The Global Financial Markets Association (GFMA), the International Swaps and Derivatives Association (ISDA), the International Association of Credit Portfolio Managers (IACPM) and the Japan Financial Markets Council (JFMC), the “Associations”, welcome the opportunity to respond to the Basel Committee’s Consultative Document “Reducing variation in credit risk-weighted assets – constraints on the use of internal model approaches”.

The Associations’ full response to the consultative document is set out below and is preceded by an executive summary of our key concerns.

The Associations remain at the disposal of the Basel Committee to discuss these considerations in more detail together with the other issues raised in our response. Should you have any questions on our comments, please do not hesitate to contact the undersigned or Jacqueline Mills at the GFMA (jacqueline.mills@afme.eu).

Yours sincerely,

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GFMA/ISDA/IACPM/JFMC Comments on the BCBS Consultative Document: Reducing variation in credit risk-weighted assets – constraints on the use of internal model approaches

EXECUTIVE SUMMARY

Removal of risk sensitivity from the capital framework is a major step backwards with significant economic impacts that are inconsistent with the global growth agenda

The Associations welcome and support the Committee’s objectives of increasing the comparability and simplicity of the capital framework and reducing excessive RWA variance. The Committee’s previously stated objective of maintaining risk sensitivity is, however, notably missing from the present consultation. Restricting internal modelling to the extent proposed will significantly and unnecessarily reduce the framework’s risk sensitivity which will have an impact on pricing, banking services and the provision of credit to the economy. The current proposals amount to the most significant conceptual change that has taken place since the advent of Basel 2 and, rather than improve the measurement and understanding of risk, are more likely to do the opposite.

The removal of risk sensitivity will distort capital allocation decisions, origination incentives and pricing to the detriment of banks’ customers and the global economy. Corporates are likely to suffer restrictions on the availability of many banking services and products needed to support their commercial activities and hedge financial risks. Corporate lending, capital markets activity, including derivatives and short term secured financing, project finance deals, aircraft and shipping finance and commodities finance, all necessary forms of finance to support investment and economic activity, will all be extremely affected by the proposals. Moreover, economies where market financing is still developing are likely to feel these effects more acutely. Consequently, we view these proposals as being inconsistent with the pursuit of the growth agenda at global level.

A comprehensive analysis is required to avoid disproportionate and unnecessary increases in capital requirements

The Associations are also concerned that the cumulative effects of the current suite of Basel Committee proposals are all leading to increased risk weighted asset levels. Since the crisis, there have already been significant increases in capital requirements through the Basel 2.5 and the 2010 Basel 3 reforms. These increases in capital requirements were necessary and have improved the stability of the financial system but there are decreasing marginal benefits for society from yet higher requirements. We therefore welcome the commitment by the Group of Governors and Heads of Supervision (GHOS) to not significantly increase capital requirements across the banking system. However, we do not see how this commitment can be respected without recourse to a significant re-calibration exercise. Moreover, while steps can be taken to adjust calibration, we stress that the loss of risk sensitivity cannot be compensated for by calibration decisions on their own. We also highlight that the capital impact on different regions, business lines and products of the cumulative proposals has not been adequately assessed. Consequently, a commitment to not increase average capital levels is insufficient to ensure that users of banking services will not be affected.
Given the piecemeal approach to consulting on separate but interrelated parts of the capital framework, industry has not had sufficient opportunity to provide feedback on the coherence and overall impact of the proposals. For example, the industry’s response to the revised standardised approach was based on the understanding that it may replace the existing standardised approach, not that it would become the only measure of risk based capital for many exposures as has emerged from the present consultation. The revised standardised approach for credit risk will thus require significant improvements before it is finalised. The proposed changes for credit risk also come alongside developments in market risk, operational risk, the Leverage Ratio, interest rate risk in the banking book, revisions to the securitisation framework, revisions to Credit Valuation Adjustments and total loss absorbing capacity holdings. We believe it is absolutely essential to examine them collectively and holistically, rather than in their respective risk silos.

We also have concerns that the very tight timeline the Committee is imposing may not allow for proper consideration of the impacts of the proposals. Changing the cornerstone of the international capital framework within a matter of months may well give rise to unintended and unforeseen consequences. The latest ad hoc QIS exercise is particularly important and we urge the Basel Committee not to rush this process. It will be essential for industry to be given a further opportunity to engage with the Committee on the entire set of proposals once the QIS results are available.

Efforts underway to reduce unwarranted RWA variability and build up data availability should be favoured over the current proposals to remove risk sensitivity

We also wish to recall that studies undertaken by both the Basel Committee and the EBA show that 75% of RWA variance is driven by genuine differences in underlying risk and is thus fully justified. Important investments on the part of both industry and the regulatory community are also underway to reduce the remaining non-risk based or unwarranted RWA variance. These efforts should be allowed to continue and take effect before fundamental changes to the risk based capital are introduced. For instance, one of the most significant areas of divergence that industry and the regulatory initiatives of the EBA are seeking to address is the definition of default. The present consultation does not take into account such developments. We consider however that the Committee’s efforts would be more effective if they were focused on issues such as these as well as on the harmonisation of modelling standards and practices.

While we acknowledge there may not be enough data to estimate certain risk parameters with precision in a limited number of cases, the Associations consider that allowing modelling where there is data is a better approach than the proposals in the consultative document. Industry has built up a wealth of data over recent years covering most exposure categories, including through the pooling of data from various sources. Where there is sufficient data availability we consider that firms should be allowed to continue using internal modelling approaches as this provides the most appropriate, risk sensitive capital outcome and capital allocation decisions.

Increased standardisation and multiple combinations of capital floors may well lead to less understandable and comparable capital requirements than today

As already mentioned, the Associations are fully supportive of work to improve the comparability and simplicity of the framework. The industry also recognises that models must be continuously enhanced and subject to rigorous, ongoing supervision. We caution however that, as they stand, the proposals are in fact more likely to increase the complexity of the framework and reduce comparability between firms. For instance, applying the same risk weights to unrated obligors with different risk profiles and blurring the distinction between secured and unsecured exposures will disguise risk and not improve comparability. This will be exacerbated by the introduction of combinations of input and multiple output floors at different levels. As such, we consider that the proposals will end up obscuring underlying risk rather than making capital requirements more understandable and comparable. In particular, we do not think there is a case to introduce output floors, especially when the leverage ratio already exists as a non-risk based backstop.
Promoting alternatives to the current proposals

The Associations strongly believe that the objectives set out in the consultation can be achieved without restricting internal modelling in the way and to the extent proposed. We therefore have put forward a number of alternatives we encourage the Committee to consider when reviewing its proposals. Our key concerns and alternative suggestions are summarised below and set out in more detail in our full response:

**Banks and financial institutions** – we propose a Constrained-IRB approach that addresses the Committee’s concerns on RWA variability without the loss of risk sensitivity the application of the revised standardised approach implies. Under this approach, the IRB risk weight function is retained and firms allocate exposures to regulatory defined parameters of PD and LGD using internal ratings and the type and/or seniority of exposure respectively. The use of the actual Maturity would be retained as this is not a source of RWA variance. The regulator-defined master scales of PDs and LGDs could be the same for banks and other financial institutions in all jurisdictions or they could be tailored to address the differences in risks between banks and other kinds of financial institutions such as various types of funds, insurance companies, etc.

**Corporates** – the proposals for so called “low default portfolios” and associated thresholds for removing banks’ ability to model PD and LGD parameters are arbitrary, not supported by evidence and will create significant distortions between corporates of the same credit quality depending on whether they belong to a group structure or not. To overcome the significant drawbacks of the proposals, we recommend that when firms can prove that they have enough data, be it through internal or pooled sources, internal modelling should continue for all corporate exposures. Firms should also be able to show that there is an inherent margin of conservatism in their modelled outputs.

**Project, object and commodities finance** – given their bespoke, structured nature, these specialised lending transactions are inherently ill-suited to standardisation. Industry data also shows that these exposures are low risk particularly when they are carefully structured and monitored by specialists. Moreover, many data sources are available, including pooled default and loss data, but also information related to the assets and industries relevant in this business area. We therefore recommend that internal modelling be retained for these exposures when firms can prove their specialism in these businesses. We suggest a number of criteria that could be considered for recognising this specialism.

**Counterparty credit risk and CVA** – we recommend that the IMA-CVA be retained as it is the only approach that faithfully captures risk sensitivity. SA-CVA suffers from a flawed and punitive treatment of proxy hedges and BA-CVA is still overly conservatively calibrated in part due to the EE variability component. Requiring banks to only use either SA-CVA or BA-CVA will therefore not only fail to reflect true underlying economic risk, but will also raise the cost of prudent hedging. This will be passed on to end-users, potentially driving them to leave their risks unhedged or to pursue less-expensive hedging options outside of the regulated banking sector. We also have significant concerns on the introduction of an exposure level standardised floor for IMM in addition to floors on input parameters and aggregate output floors as this is likely to lead to less transparency on where risks are building up.

**Credit risk mitigation** – the proposed changes to bank and corporate exposures will have many unintended consequences on the CRM framework. As the proposals stand, the mixture of risk approaches (standardised, IRBF, IRBA) ultimately means that the very real differences between unsecured and secured exposures will not always be distinguishable and the benefits of risk mitigation will not be appropriately recognised. We encourage the Committee to reconsider the impacts of their proposals on this area of the framework carefully.

**Exposure at default/credit conversion factors** – the current proposals are extremely restrictive and will result in banks having to default in the vast majority of cases to the revised Standardised Approach CCF levels, which are poorly calibrated and insufficiently granular, with significant impacts. Bearing in mind their direct impacts as well as their effects on the leverage ratio calculation, standardised CCF levels must be revised. In our view, the scope of modelling available for CCFs should be consistent with that of LGDs. As
such we recommend that CCF modelling be retained in particular for corporates, including for non-
revolving products, as well as for trade finance and specialised lending exposures. Moreover, they should
not be subject to the proposed floor. We also believe that CCF levels for unconditionally cancellable
commitments should be set a 0% consistently throughout the advanced and standardised approaches.
1) Overarching issues

General comments on the proposals

The Associations understand that the objectives of the current proposals are to (i) reduce the complexity of the regulatory framework and improve comparability; and (ii) to reduce excessive variability in the capital requirements for credit risk. We are however concerned that the consultative document does not mention the importance of maintaining a risk sensitive capital framework. By omitting this as a clear objective, we are worried that the Basel Committee is seemingly prepared to sacrifice the risk based framework developed over the last 30 years.

We strongly believe that the objectives set out in the paper can be achieved without the need to restrict internal modelling in the way and to the extent proposed. We disagree with the Committee’s judgment that its approach is justified by its assessment of the costs and benefits of permitting banks’ internal models to drive regulatory capital calculations. In particular, we believe that the Committee’s approach is disproportionate and difficult to reconcile with a capital framework that should be proportionate to underlying risk levels. Separating regulatory capital outcomes from underlying risk levels will lead to suboptimal capital allocation decisions and pricing distortions to the detriment of banks’ customers and the global economy.

These concerns are reinforced when considered alongside the Committee’s proposals to revise the Standardised Approaches for the various risk categories and to introduce output capital floors. We have pointed out on several occasions that it is difficult for industry to comment on these different proposals in isolation precisely because they are intrinsically interlinked. The industry has not had sufficient opportunity to consult on the coherence and overall impact of the proposals due to the piecemeal approach of consulting on separate but interrelated parts of the capital framework. For example, the industry’s response to the revised standardised approach was predicated on the understanding that it may replace the existing standardised approach – not that it would become the only measure of risk based capital for many exposures, as subsequently has emerged from this consultation on IRB.

As the set of proposals stand, it is difficult to see how they can be reconciled with the GHOS commitment that there should be “no significant capital increase on average”\(^1\). We understand that calibration decisions have yet to be made. However, while steps can be taken to adjust calibration, the loss of risk sensitivity cannot be compensated for entirely by calibration decisions.

We appreciate that a more comprehensive QIS analysis has recently been put into motion (on 26 April 2016) and consider it essential that the Committee undertakes a regional, business line and product level analysis of the impacts. It will also be necessary for industry to be given a further opportunity to comment on the entire set of proposals once the QIS results are available. While a comprehensive QIS is of course

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\(^1\) This commitment has been regularly referred to by many national and regional regulations who have reiterate their commitment to its outcome.
necessary to calibrate the final framework, the time period for its completion (approximately 1.5 months) is
too ambitious in order to ensure high quality outcomes.

The Associations acknowledge the Committee’s goal to complete its work by the end of 2016. Many senior
market participants would welcome regulatory certainty after a lengthy period of regulatory reform. However, the scope, extent and magnitude of the changes in the credit risk framework warrant careful
consideration to ensure that the removal of risk sensitivity does not lead to a systematic mispricing of risk
across the banking sector. Such an outcome could have significant implications for financial stability.
Therefore, in this case we do not think that the short time period is acceptable given the substantial change
being envisaged and the potential RWA impact the proposals are likely to have.

The current proposals relate to the most fundamental conceptual change that has taken place since the
advent of Basel 2 and will apply to the largest category of risk weighted assets globally. They should
therefore be subject to the same level of consultation and analysis as other proposals of the same magnitude.

Risk sensitivity of the capital framework must be maintained to ensure appropriate capital allocation

Assessments that are made internally by banks allow for the most accurate measurement of their
underlying levels of risk. Banks evaluate their activities and allocate capital based on returns on those
regulatory requirements which represent their binding constraint. Unless those regulatory capital
requirements are based as closely as possible on underlying risk levels, banks’ capital allocation and pricing
decisions will be distorted, to the detriment of their customers.

Disconnecting internal risk management perspectives from regulatory requirements creates misguided
origination incentives. The less risk sensitive the framework is, the more opportunities for regulatory
arbitrage are created, incentivising firms to seek higher risk assets as a means of boosting returns. This in
turn creates herd effects, leading to less diversity in banks’ portfolios. Reverting to standardised risk
approaches also fails to take into account the risk characteristics of jurisdictions whereas actual risk differs
quite substantially between countries in practice. Flat risk weights will obscure real differences in risk
profiles between banks and countries and will lead to a more favourable capital treatment of loans to
counterparties in higher risk jurisdictions. Consequently, we are extremely concerned that the removal of
risk sensitivity will result in a corresponding increase in risk in the financial system as a whole.

In order to ensure a financial system that measures risk accurately, allocates capital accordingly and
provides sound origination incentives that benefit the economy at large, risk sensitivity must therefore
remain a core feature of the capital framework.

This does not mean to say that banks should have absolute freedom in their internal modelling of risk. It is
of course necessary for non-risk based variability in RWA outcomes to be reduced to the absolute
minimum. This requires technical approaches to be consistent and comparable across firms. Firms need to
adopt appropriate margins of prudence in their parameter estimates. And modelled outcomes need to be
back-tested and disclosed with the right level of detail for proper market discipline. In parallel, supervisors
must ensure rigorous and continued oversight of models and proper governance of those models within
firms (e.g. a good example of this is the Target Review of Internal Models (TRIM) exercise currently being
conducted by the Eurozone supervisor, the SSM) and across different jurisdictions.

It is also worth recalling that the lion’s share of RWA variability is risk-based, and is therefore fully justified.
Abandoning or constraining risk-sensitive approaches will mean a lost or diminished opportunity to capture
and capitalise these very real differences in exposure to risk. Where differences are not risk based,
significant efforts and investments have been made, by both banks and regulators at international level and
in major jurisdictions of the Basel Committee to ensure that undue variance in RWA outcomes is
addressed. For example within the EU, the EBA has embarked on an IRB Repair Programme to harmonise

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2 By way of comparison, Basel II took 7 years to complete, the FRTB was (mostly) finalised within 4 years, etc.
supervisory approaches to model validation and oversight and to streamline differences in definitions and modelling practices between firms). For instance, one source of non-risk based RWA variability that drives a significant amount of variability in modelling estimates is the definition of default. The EBA is carrying out extensive work to ensure this is harmonised throughout the EU. The present consultation does not consider this issue and ignores the work of other authorities to streamline and harmonise such definitions.

Moreover, as the Committee is well aware, the leverage ratio already acts as a binding backstop to risk based capital requirements, and serves to address concerns regarding modelling risk. Lastly, with the advent of IFRS9, accounting standard setters have developed a risk based approach more in line with the philosophy used up until now in regulatory capital requirements. The BCBS’s current proposals will move accounting and prudential frameworks further away again.

While some of the reforms and changes mentioned above still need time to bed down, it is difficult to understand why the BCBS has at this stage put forward proposals that will effectively decouple internal risk management perspective and regulatory requirements to such a great extent.

With this consultation, the Committee has instead opted to shift risk assessments from banks, whose core competence is the evaluation of risk, to regulators and rating agencies, whose assessments are not immune to modelling risk, with limited oversight, and without access to more detailed data or granular knowledge of the firms’ business model, clients and risk management approach. We therefore do not consider that this approach solves any of the potential flaws of internal risk modelling.

We note the Committee’s view that there are cases where there may be insufficient data to estimate certain risk parameters. While we acknowledge this may be the case in a minority of cases, the scope of the present proposals to reduce the role of internal modelling goes too far. We discuss this in more detail below but believe it is important to point out already that as they stand the proposals will dis-incentivise further data collection efforts on the part of firms and are significantly less risk sensitive than an approach that would have allowed for hybrid approaches involving increased expert judgment and data pooling from various sources under appropriate supervisory monitoring.

**Input and output floors will not create more comparability or simplicity and should not be introduced**

As explained in previous industry responses and notably in the joint trade’s response to the Committee’s December 2014 consultation on capital floors, we do not see the introduction of output capital floors as being necessary, particularly at this point in time. Non-risk based RWA variance is in the process of being addressed through various avenues, not least the present consultation, and the leverage ratio is already in place as a non-risk sensitive backstop to address model risk. At the very least, these proposals should all be fully embedded, and their impacts assessed and monitored, before the introduction of output floors is considered any further.

It is also worthwhile recalling that issues of design and calibration of capital floors cannot be separated. Not only do floors set at high calibration levels have the potential to undermine risk sensitivity, their current consideration is based on the premise that they would be a function of a sufficiently risk sensitive underlying standardised approach. For the reasons set out in our response to the second consultation on the revised standardised approach for credit risk (RSA), we strongly disagree that the RSA is sufficiently risk sensitive for these purposes.

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3 In this context, we note that the current QIS exercise is based on a definition of default that will be superseded within a relatively short frame for firms operating in the EU. We urge the Committee to take this into account when analysing the QIS results.

4 IIF, GFMA, CREFC and ISDA response to BCBS CP “Capital Floors: the design of a framework based on standardized approaches”.

5 GFMA, IIF, ISDA and IACPM Comments to Basel on the Second Consultative Document on Revisions to the Standardised Approach for Credit Risk
Moreover, we have significant concerns that the combination of risk category and/or exposure level output floors and parameter/input floors will affect banks in materially different ways, reducing comparability and simplicity rather than improving it as this will involve more computations and interdependencies. The resulting regulatory capital requirement from the new framework is likely to be more difficult for investors to understand than one that is proportionate to underlying risk. Indeed, the removal of internal models in some cases and the introduction of a combination of various floors will have a number of “downstream” effects that must not be ignored:

- **Obscuring risk levels:** the proposed framework (with its combination of standardised approaches, limited modelling and capital floors) will result in cliff-effects and changes to capital requirements that cannot be explained through changes in risk profile, but only purely through the mechanics of the framework. As long as the stressed risk-weighted assets of a firm are below the floored risk-weight, the capital requirement is unchanged, even though a bank or a specific portfolio might experience significant stress. This will create a misrepresentation of true risk based capital needs in stressed conditions.

- **Capital planning:** the proposed framework will render capital planning more difficult because capital requirements will be subject to cliff-effects (e.g. when portfolios cross the floored risk-weight or when the risk-parameter floors are crossed) and because risk-weighted assets will be disconnected from their real risk-profile.

- **IFRS9:** banks will be required to change their loan loss provisioning to an estimate of expected loss. A number of banks plan to use IRB models to derive this estimate. The proposed change to remove IRB permission for certain portfolios will result in static capital requirements (as long as the modelled risk-weight is below the floored risk-weight or in the case of externally unrated counterparties), while loan loss provisioning will produce a dynamic measure of expected loss. This will create a new gap between provisioning and risk-weighting, i.e. between expected and unexpected losses when work has been underway for 10 years to better align accounting and regulatory perspectives. Forthcoming changes to US GAAP\(^6\) will make similar changes to adopt an expected credit loss approach to provisioning.

- **Disclosure:** the proposed capital framework will make publishing and interpretation of disclosures more complex, which contradicts the objective of simplification. It will be more difficult, if not impossible, for market participants to perform a like-for-like comparison of bank credit risk portfolios in the future. For portfolios subject to the standardised approach, the user will not be able to review the credit quality of the underlying exposures. It will also be difficult to identify whether risk weights are driven by parameter level, exposure level or portfolio level floors. This represents a deterioration in the quality and content of Pillar 3 disclosures since current disclosures provide information on the risk parameters PD, LGD, CCF and Maturity.

- **Models will need to be maintained and reviewed:** the removal of internal models for wholesale exposures in the capital framework would not remove the fundamental need for accurate measures of risk in day to day credit risk management. Internal models will still be used as essential inputs in risk measurement, the credit approval process, limit monitoring, concentration risk measurement, portfolio management and stress testing. Removing the formal supervisory approval process for IRB permissions may seem like an efficient approach to free up scarce regulatory resources. However, we believe that the removal of IRB model permissions should not remove the obligation of supervisors to continue to review and assess models as part of reviewing the risk management frameworks of banks. Indeed, the removal of a structured, formal approach to reviewing internal models could make it more difficult for supervisors to benchmark internal models and the wider risk management frameworks implemented by banks.

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\(^6\) FASB Current Expected Credit Loss (CECL) model - ASC sub topic 825-15
2) The ability to model risk internally

We disagree with the Committee’s assessment of the unsuitability of certain portfolios for internal modelling. In particular, we disagree with the Committee’s the analysis of the three criteria set out in the consultation. We provide our comments on these assessment criteria below.

Data availability

The imposition of standardised approaches will reduce incentives for firms to put improved systems in place to capture default and loss data and invest in further building up their understanding of losses and recoveries in particular. Instead of resolving potential data issues, the introduction of standardisation is more likely to perpetuate data scarcity and will discourage sophisticated risk management of “data poor” portfolios.

Data pooling is a powerful tool that can be used to overcome data scarcity issues occurring at the level of individual firms. The introduction of the risk sensitive Basel 2 framework has seen the development and promotion of data pooling exercises, with pools now being widely available from commercial, public and non–profit organisations such as well-established rating agencies, industry groups and public sector delinquency registers. Regulators should encourage the pooling of default risk data and its use by banking organisations. For example, GCD is the world’s largest LGD/EAD database with over 100,000 defaulted facility observations totalling over €200 billion and is focussed on large corporate, bank, SME and SL asset classes.

Central banks or regulators should be encouraged to collect data that could be used to complement firm level data. For instance, the ECB’s Annacredit initiative could be expanded for this purpose. Data pooling run centrally could for instance cover closed default cases for all portfolios (including off balance exposures). It could also include incomplete work-out information EADs, recovery information with cash flow details, direct and indirect costs as well as information such as product details, collateral and guarantees etc.

By drawing on information from data pools, firms can build up models that are tailored to their businesses and portfolios even when data is scarce at the individual firm level. In this respect, data pools are a tool similar to internal databases, providing information that firms can harness to build representative, firm-specific samples by restructuring the pooled information according to drivers that are relevant to the firm in question. Even in cases where the pooled data may be deemed not to be sufficiently representative or comparable to a specific firm’s internal portfolio, a firm can still compare its internal estimates with the multibank average from the pool and explain any differences. Where necessary banks can apply a margin of conservatism to ensure that pooled data is adjusted to reflect a firm’s specific portfolio. This would lead to a more justifiable risk weighting than the standardised approach which effectively imposes implicit PD and LGD assumptions through the use of fixed risk weightings. These are even less likely to be representative of a firm’s internal portfolio than data pooling initiatives.

We recognise that for information from data pooling initiatives to be used in the context of regulatory capital calculations, it is crucial for the data collection exercise to be of the highest standard where figures are collected according to harmonised definitions and data is subject to appropriate quality control. Similarly as for existing data requirements for modelling purposes, the Committee may wish to consider developing specific principles applicable to data pooling.

Beyond default data, firms also have a wealth of information at their disposal regarding performing exposures. The current proposals therefore appear to penalise firms with good track records, risk management and data collection systems in place.
IRB models, which have been subject to sound internal validation procedures and regulatory approval, have proved their validity in the past through backtesting over an economic cycle. We note also that governance of model development and validation is also extremely robust within firms and is strictly supervised.

**Informational advantage**

Banks’ long term client relationships imply they hold detailed financial information about their customers, including customer account and daily movement data. This data and its analysis enables banks to make appropriate credit decisions on the basis of information that is not available to other parties. Once agreements have been executed, certain products and transactions include provisions and covenants which grant the lender early access to information on the performance of the obligor. This allows the lender to take early action should the obligor’s credit quality deteriorate. These informational advantages are also present in the case of the counterparties that have been identified as “LDPs” in the present consultation.

More generally, banks with internal models and the associated risk management systems, credit risk specialisation and recovery strategies will also have developed information advantages compared to the broader market.

For instance, different products have different implications in terms of recovery estimates. A downturn analysis conducted on the basis of data covering a non-homogenous variety of asset types (as would typically be the case when performed by an external 3rd party) may lead to confusing signals and inaccurate results. For example, within the corporate exposure class, it is necessary to segment portfolios by facility type, differentiating between bonds, where recovery rates are market implied (market value of resale), and loans, where recovery rates are determined by the individual institution’s work-out strategy.

**Modelling techniques and validation**

As the above chart taken shows, backtesting banks’ internal models proves that the modelling techniques and validation approaches used in the past have resulted in conservative modelling outcomes, despite this asset class being one of the categories considered to be a “low default portfolio” in the current consultation. Backtesting of models for other parameters and asset classes shows a similar picture. These tests show that the modelling techniques in place in firms have led to robust outcomes.

Moreover, the recently published final market risk standards state in para 186 (s) and (t) "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." The Committee itself has therefore recently recognised

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7 Based on data from Global Credit Data’s large corporate LGD database
the validity and superiority of internal assessments for PDs and LGDs in the trading book but is now arguing against modelling of these same estimates in the present consultation.

Scope of internal modelling

The current proposals to remove internal modelling for larger counterparties and to restrict it for mid-size corporates appear to be based on the judgement that such so called low default portfolios do not meet the above criteria and/or that they are a source of undue RWA variance. The proposals therefore remove modelling entirely for large corporates (i.e. for groups with consolidated assets above EUR50 billion) and allow the retention of only the IRB approach for corporates with an annual turnover of EUR 200 million. In other words, the proposals are based on the assumption that low default portfolios, or larger counterparties as defined by the proposed thresholds, give rise to greater parameter estimate variance between lenders.

However, analysis conducted by GCD shows that there is no more variability in internally modelled parameters for larger corporates than for smaller ones. In fact, some evidence points to slightly higher variability in internally modelled parameters for the smaller corporates tested. This is illustrated for both PD and LGD variance in the two charts below, where exposures are classified in buckets according to their size (expressed here in terms of total assets, with bucket 10 being the largest corporates). The findings also hold when corporates are segmented according to turnover.

While the above data is based mainly on European bank data, we believe an expansion of the study to a more global sample would reveal similar results. At the very least, we think this calls into doubt the thresholds the Committee has set for defining low default portfolios and therefore the future scope of internal modelling defined in this consultation.

GCD has also tested whether banks are less able to accurately predict PDs and LGDs for firms of high credit quality, which are by definition “low default portfolios”. GCD finds no evidence that the relative errors in PD estimates are worse for highly rated corporates and in fact they find that banks are more conservative in their PD estimates for investment grade exposures than for other credits. They performed a similar test for LGDs and again found no relationship between LGD prediction performance and the counterparty’s size. Similarly to PDs, they observe slightly more conservatism in LGD estimates for larger counterparties (bucket 10).

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8 Variance is measured here as “relative standard deviation”, i.e. PD (or LGD) standard deviation / PD (or LGD) mean
9 Analysis based on data provided by 13 lenders to GCD (mainly large and internationally active European banks) in the context of a replica EBA hypothetical portfolio exercise (2014) – covers circa 300 corporates for which asset and turnover data was available.
10 This PD test is based on the GCD EDF/ODF database, latest release, where 17 large and internationally active banks contributed data; 12 of these banks are European banks. Relative PD prediction error is defined as (ODF –EDF) / EDF where EDF is expected default frequency (predicted/ex ante/estimated PD) and ODF is observed default frequency (realized/observed/ex post PD).
11 From the GCD LGD database, December 2015 release, they extracted all resolved large corporate defaults where the counterparties were fully unsecured and where turnover, total assets and ex ante LGDs were available, resulting in an analysis of 160 large corporate defaults from 11 banks (7 European, 1 North America, 3 Rest of the World)
Given the above findings, we do think there is a case to remove or restrict internal modelling for low default portfolios, particular in the manner currently defined. We will set out our thoughts on the proposals for bank and corporate exposures, as well as our alternative suggestions below.

**LGD Prediction Error, by Size Buckets**

*Retaining internal modelling*

While we acknowledge that efforts must be made to improve the comparability of the framework, given the above points and the advantages of retaining risk sensitivity for capital allocation, industry considers that there is not sufficient justification to overhaul the use of modelling in the capital framework to the extent proposed by the Basel Committee and we do not support the current proposals.

The estimation of probabilities of default is a core part of the framework and the Committee itself agrees that banks are good at rank ordering credit quality. We therefore consider that firms should be allowed to retain the ability to estimate PDs regardless of the exposures category whenever possible.

A truly risk sensitive capital framework can also not be focused solely on PDs. LGDs are also an essential component in correctly assessing risk and risk sensitivity. However, the replacement of firms’ LGD estimates supervisory LGDs will misrepresent and disguise actual risk levels and incentivise misguided origination. Moreover, firms will have less incentive to take on collateral as its mitigative effect will not be recognised and will favour unsecured lending instead. The proposals can lead to perverse outcomes where secured exposures are subject to higher risk weights than unsecured exposures.

Moreover, with regards to secured exposures, we believe the proposals to limit modelling by asset class are not sufficiently discriminatory. Secured recovery rates are driven primarily by the collateral type and firm’s recovery processes (work out processes, resale markets, etc.) than the type of customer pledging in support of finance. To only allow modelling of secured LGD for smaller corporates seems incompatible with the nature of secured lending. For example, a small corporate falling within the proposed threshold for application of the IRBA may offer the exact same collateral as a larger corporate. However, according to the proposals, the implied recovery rates, and hence the capital amounts, will differ substantially. In our view, the framework should therefore provide for modelling of secured LGDs irrespective of the customer type where institutions can demonstrate they have sufficient data and appropriate data quality.\(^\text{12}\)

\(^{12}\)Current criteria relating to the collateral and its pricing, markets, liquidity, etc. would still be of application.
Although LGD estimation has been identified as a source of RWA variance, work is currently being carried out, for instance, by the EBA to harmonise and streamline the approaches that should be adopted in determining downturn calibration. Where variation in modelled outcomes has been due to diversity in bank and supervisory practices, this is being addressed by clearly defining regulatory expectations for modelling approaches. Industry has already contributed to these discussions and supports these efforts. We are of the view that these initiatives should be given the time to take effect before LGD estimation is removed for certain portfolios, and particularly from those portfolios for which data is available through pooling solutions.

These models should of course be subject to rigorous and ongoing scrutiny by supervisors. We recommend that, in order to demonstrate that these modelling approaches are accurate and conservative to supervisors and the market alike, firms could describe the ex-post margin of prudence observed when backtesting their models. Other statistical assessments of model performance could also be considered, with firms not passing these tests then defaulting to a regulatory prescribed approach.

Keeping in mind the availability and benefits of alternative sources of data, we would recommend that the Basel Committee consider developing a common set of minimum standards for data pooling to allow firms to meet IRB regulatory requirements. Where the data pool meets this common set of minimum standards, this should warrant the use of A-IRB where data exists for PD, LGD and EAD parameters, and IRBF or an equivalent approach where sufficient data exists for the PD parameters. This would ensure greater harmonisation, robustness, governance, transparency and confidence in data pooling and support the continued use and improvement of the IRB framework.

We believe that only in rare cases where model and data quality are insufficient should the standardised approach be envisaged as an alternative. We note that this way of proceeding would be consistent with the approach adopted recently by the Basel Committee for its Interest Rate Risk in the Banking standard, which relies on internal models but allows supervisors to revert to a Standardised Approach if deemed necessary.

3) Consistency of application - ensuring a global level playing field

The Basel proposals include a statement which we believe is contradictory to the stated objectives of the proposals to increase comparability and reduce RWA variability. Page 3 states:

“Regarding the use of internal models for calculating regulatory capital, jurisdictions will be considered compliant with the Basel framework if they do not implement any of the internally modelled approaches (ie they allow use of the standardised approaches only).” We are concerned that this has the potential to introduce further variance to the capital framework.

The Basel Committee has undertaken significant work to remove national discretions from the capital framework, stating in April 2015 that “the use of national discretions can [...] impair comparability across jurisdictions and increase variability in risk-weighted assets” 13. It seems counter-intuitive to introduce new national discretions in a consultative document that is intended to reduce variation in credit risk weighted assets.

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13 Basel Committee on Banking Supervision, Basel Committee removes selected national discretions and replies to frequently asked question on funding valuation adjustment, April 21, 2015, [http://www.bis.org/press/p150421.htm](http://www.bis.org/press/p150421.htm)
We understand that for emerging market economies, the cost of developing the supervisory infrastructure and personnel to review banks’ internal models may not be an efficient use of resources. But given that Basel III standards are intended to apply to large, internationally active banks, we believe the Committee should be encouraging those jurisdictions with such banks to harmonize and promote level playing fields to the extent possible. The risk sensitivity of the internally modelled approaches reinforces and is consistent with the sophisticated risk management approaches that should be expected of large, complex banks. We believe no jurisdiction that has signed up to the G20 agenda should have the option of not implementing advanced approaches because this is entirely inconsistent with the Basel objectives for revisions to the RWA capital framework.

4) Exposures to banks and other financial institutions

We disagree with the blanket proposal that all financial institution exposures be subject to the standardised approach as the RSA does not have sufficient risk sensitivity or granularity to distinguish between good and poor credits.

*Alternative proposal: Constrained IRB*

A significant number of exposures to financial institutions are to unrated counterparties which would be subject to a fixed 100% risk weight. This means that the capital framework would not provide any differentiation of credit risk for a large number of obligors. We believe Basel’s concerns on excessive RWA variability and comparability can be addressed without significantly removing risk sensitivity. Consequently we would like to propose a viable alternative to the Basel proposal for exposures to financial institutions (other than those that are trade-related for which current treatment should remain) which we will call the Constrained Internal Ratings Based approach (CIRB).

Firstly, the Basel IRB risk weight function - which is a function of Probability of Default (PD), Loss Given Default (LGD) and Maturity (M) – remains an appropriate approach to determine conservative risk weights. It is based on sound academic credit risk theory and the concerns that have been expressed by the regulatory community relate to the inputs into the IRB risk weight function and not the function itself. Therefore, we believe that the IRB risk weight function should be retained for banks and financial institutions.

Secondly, concerns that have been expressed by the regulatory community relate to the inputs into the IRB approach rather than the use of internal assessments of credit risk. Given banks’ proven capacity to rank order counterparties’ likelihood of default, we believe internal ratings should remain a key part of the framework. Retaining the use of internal ratings has several advantages. It will reduce mechanistic reliance on external credit ratings where they are used to calculate capital in the standardised approach. It will also significantly increase the universe of “rated” counterparties since many financial institutions are not rated by public credit rating agencies.

Next, moving to the crux of the issue identified by the Committee, we address unwarranted RWA variability. We recommend that for exposures to banks and financial institutions, regulators set the parameters that must be used in the models to enforce harmonisation across the capital requirements for the “same” risks. This can be achieved by defining a consistent “master scale” of PDs that are set by regulators using “through-the-cycle” data. Then a bank’s internal rating for an obligor would be mapped to a regulatory defined PD. This is illustrated in the table below which uses average one-year default rates from 1970-201514.

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14 This illustrative table is based on Moody’s average one-year default rates for Corporates including Banks and Financial Institutions
For simplicity, a consistent PD master scale such as the one above could be applied for all Banks and Financial Institution exposures. Alternatively, PDs could be calibrated to particular sectors (e.g. distinguishing between banks, insurance companies, pension and other funds) to recognise the differences in risk profiles between these types of counterparties. Indeed, it is important that banks and the various types of exposures falling under the non-bank financial institution be recognised and treated appropriately. Calibration of the PD master scale could also take into account jurisdictional characteristics for a more risk sensitive approach. We set out additional suggestions for developing the master scales below.

Next, we consider Loss Given Default. We believe that the LGD levels set out in the current Foundation IRBs do not contain adequate granularity to reflect the riskiness of different types of exposures. For example evidence suggests that senior secured loans – and other exposures that rank pari-passu - have higher recoveries than senior secured bonds. We believe this type of risk differentiation should be reflected in the framework. However, rather than allowing firms to estimate LGDs using internal models for banks and financial institution exposures, similar to our proposal for PDs, we would propose that regulators specify a more granular set of regulatory defined LGDs. Firms would then map their own exposures to the regulatory defined LGDs to determine the appropriate value that should be used for capital requirements. An illustration of the proposed LGD granularity is set out below using Moody’s LossCalc v4. These LGDs are from Q4 2009 and can be considered “downturn LGDs”.

<table>
<thead>
<tr>
<th>Debt Type</th>
<th>Global LGD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senior Secured Loan(^{16})</td>
<td>31.68%</td>
</tr>
<tr>
<td>Senior Unsecured Loan</td>
<td>48.16%</td>
</tr>
<tr>
<td>Senior Secured Bond</td>
<td>46.84%</td>
</tr>
<tr>
<td>Senior Unsecured Bond</td>
<td>62.23%</td>
</tr>
<tr>
<td>Subordinated Bond/Loan</td>
<td>76.07%</td>
</tr>
</tbody>
</table>

Exposures fully secured by eligible financial collateral should continue to benefit from a 0% LGD in the master scale where such collateral is not considered in estimates of EAD. The Committee could consider a number of refinements to this approach which could include, for example, region specific LGD tables or additional buckets tailored for specific types of exposures like banks that are subject to recovery and resolution frameworks.

\(^{15}\) The Moody’s PD of 0.000% for this bucket has been adapted here to reflect the PD floor proposed in the present consultation.

\(^{16}\) And other senior secured exposures ranking pari-passu
For EAD calculations, we consider that it is inappropriate to refer to the proposed RSA CCF levels as these are calibrated at unduly high levels and are also insufficiently granular. If CCF modelling is curtailed as proposed, it is essential that revised regulatory-prescribed levels reflecting underlying risk levels and identified risk drivers be put forward. We refer the Committee to our comments on CCFs in section 11 below and in our response to the Revised Standardised Approach for further information on how this can be achieved.

Finally, we then consider the third parameter which is an input to the IRB framework, Maturity. A maturity adjustment was introduced by Basel in the IRB approach because both intuition and empirical evidence indicated that long-term credits are riskier than short-term credits. As explained in more detail in our response in section 10 (Parameter estimation practices - maturity), we consider there is no meaningful justification for removing maturity from the capital framework for the purposes of increasing comparability. Therefore we recommend that maturity used in the calculation is based on the residual maturity of the exposure to the counterparty. This is especially important with respect to short term contracts.

To summarise, our alternative proposal for exposures to banks and financial institutions is that the IRB risk weight function is retained and banks are allowed to allocate exposures to regulatory defined parameters of PD and LGD using internal ratings and the type / seniority of exposure, respectively. The use of the actual Maturity would be retained. We believe that this proposal addresses many of the concerns expressed by the Committee on RWA variability. It is simple and transparent but retains a significant degree of risk sensitivity.

Developing the master scales through centralised data pooling

Another way to achieve convergence of risk parameters could be to promote similar calibration, validated by supervisors, for all banks, covering a scope that is broader than that currently covered by rating agencies. Banks could submit their calibrated PD / LGD levels for a list of counterparties or transactions (for instance those requested in the Hypothetical Portfolio Exercises already run by BCBS could be a starting point), and supervisors could allow banks to use as an input parameter to the IRB formula, a constrained parameter such as the mean / median / nth percentile of the distribution of values submitted by the banks (to ensure that a full cycle is used for PDs, and the downturn character for LGDs). This will promote the collection and understanding of risk data and enable benchmarking of individual risk parameters, again consistent with many initiatives that have already been undertaken in various jurisdictions globally.

5) Corporate exposures

As indicated above and as supported by the various tests conducted by GCD, we find the proposed thresholds (total assets above 50bil/revenues above 200mil) for disallowing LGD and PD modelling respectively arbitrary and do not understand how they relate to firms’ ability to model or how these are the most appropriate indicators of a low default portfolio. For instance, a corporate’s industry or jurisdiction may well be more relevant in making such a determination than its size.

Importantly, by disallowing LGD modelling of all entities belonging to a consolidated group that exceeds the thresholds, the number of corporates and the portion of banks’ portfolios that will be affected by the proposals will be significant (and far surpasses the 100 or so groups that would meet the 50 billion asset threshold at consolidated level for instance).

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17 Which can be consulted [here](#).
By using this consolidated definition, the Committee is creating distortions for corporate counterparties of identical credit quality depending on whether they belong to a (large) group or are independent. There is no sound rationale for these differences in capital treatment and the proposals create a discontinuity in risk weighting levels. The graph below shows the different risk weights applicable to a medium sized company with a moderate credit quality (BBB-equivalent) depending on its ownership:

![Graph showing risk weights for different ownership structures]

Under the proposals, the bigger the group, the higher the risk weight. Again, this is counterintuitive. As a reminder, the Basel Committee had itself proposed the following RW according to the size of the company in its December 2014\textsuperscript{18} proposal that are decreasing with the size of the company:

\begin{table}[!h]
\centering
\begin{tabular}{|c|c|c|c|c|}
\hline
Leverage & Revenue ≤ €5m & €5m < Revenue ≤ €50m & €50m < Revenue ≤ €1bn & Revenue > €1bn \\
\hline
1x–3x & 100% & 90% & 80% & 60% \\
3x–5x & 110% & 100% & 90% & 70% \\
>5x & 130% & 120% & 110% & 90% \\
\hline
Negative equity(*) & 300% \\
\hline
\end{tabular}
\end{table}

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

This chart also clearly shows that if ever the Committee were to maintain its proposal to apply the RSA to large corporate, the RSA would have to recalibrated.

This being said, even if the thresholds are adjusted to take into account the comments above, we understand that there is an argument that larger corporate have greater access to market based finance than other corporates, and that the application of the standardised approach to banks’ exposures to such counterparties would therefore not have such a detrimental impact. While larger corporates will indeed be typically less reliant on bank lending than smaller firms, even larger corporates require a variety of other banking services for their day to day activities that will also be significantly affected by the current proposals and notably including those proposals for CCFs (please refer to our comments in section 11). Indeed, other typical banking services to large corporates include:

\textsuperscript{18} Revisions to the Standardised Approach for credit risk, December 2014
• Revolving credit facilities, overdrafts (i.e. undrawn credit lines)
• Back-up liquidity lines for commercial paper issued by corporates
• Performance bonds, Stand-by letters of Credit, and all other banking facilities needed for the commercial activities of corporates
• Cash management facilities (notional and cash pooling)
• Factoring
• OTC Derivatives

We note further that, as an important share of the products provided to large corporates is comprised of facilities such as those described above, by limiting banks’ ability to model CCFs, the capital impacts for these parts of banks’ portfolios will increase yet further. The proposed default application of the RSA to large corporates, together with penalising regulatory CCFs proposed for corporates, will thus apply to a large variety of products that cannot be readily provided by market players other than banks. The proposals will therefore have detrimental impact on these clients too.

Moreover, we think that the Committee has overestimated the number of counterparties that have an external rating and consequently the usefulness/appropriateness of the RSA as an alternative to internal modelling. Not all large corporates will have a rating, and in particular the individual subsidiaries of large groups are unlikely to have their own ratings. For jurisdictions where external ratings are permitted, more than 80% of exposures to investment grade obligors are to unrated counterparties.

Corporates operating in emerging markets are also less likely to be rated externally, compounding the negative effects of any migration to the Revised Standardised Approach for these jurisdictions. As a result, the present proposals are likely to have disproportionate impact on the availability, cost and provision of credit in key emerging markets where ratings are less common and which will therefore be penalised under the Standardised Approach. Banks with large emerging market footprints will pay proportionally higher capital costs for providing funding to these clients.

Alternative proposal: Retain IRBA internal models with disclosure of model performance and under the condition of sufficient data availability which should include pooled data sources

As explained above, we believe that firms who can prove that they have enough data, which can be a combination of internal and relevant external data that adheres to sufficiently high quality standards, should be allowed to use internal models for all corporate exposures. To continue using modelling across the exposure category, firms should also be able to show the margin of conservatism and/or other measures of performance of their models. It would be important for this to be provided in a standardised, consistent manner, for instance by disclosing such an indicator for each modelled parameter.

The Committee may also wish to consider introducing a minimum number of default data points above which modelling may be used, although we note that caution should be exercised here to avoid that an arbitrary level be chosen. We also note that if a minimum number of data points is chosen, its calibration must take into account how the portfolio it applies to is segmented (the more segmented a portfolio is, the fewer data points may be available).

At the very least, revised segmentation thresholds must be considered, with IRBF (or equivalent) applying to large corporates and IRBA to all other corporate exposures

We are not supportive of the proposals in the current consultation for the reasons given above. However, if the Committee continues to prune the removal of LGD modelling for large corporates in spite of the improvements that are being made to reduce variability in this area, we recommend that they allow firms to retain PD modelling for these exposures instead of defaulting to the standardised approach. This will maximise risk sensitivity under a constrained framework and recognise firms’ ability to rank order counterparties appropriately.
Given the inherent unsuitability of the RSA and the lack of relationship between the size of corporates and the predicative performance of parameter estimates, we suggest that only the largest corporates with assets above EUR100 billion be subject to the IRBF approach (or equivalent regulatory LGDs for those jurisdictions for which the IRBF is not available) but recommend increasing the granularity of LGD levels for secured exposures beyond those of the IRBF today. Secured recovery rates are driven primarily by the type of collateral and the firm’s recovery processes rather than the type of customer; hence it will be important to recognise these differences for larger corporates too.

All other corporate exposures should be subject to the IRBA.

The modelling of CCFs should follow the scope of LGD modelling accordingly (i.e. it should be permitted for those corporate exposures under the IRBA and for those larger corporate dealt with under the IRBF approach (or equivalent) should follow revised CCF levels (see our previous comments on CCFs in the Revised Standardised Approach and in the CCF section of this response below).

Nevertheless, even if this approach is retained, a solution will have to be found for dealing with the subsidiaries of the large corporates identified by this new threshold so that these entities are not unduly penalised as described above. Solutions could include revising the threshold definition so that it does not extend to individual subsidiaries of a group or all the very least ensuring that the subsidiaries of these groups be treated in a manner that takes into account a risk assessment of the level of support they receive from their parent company.

6) Purchased receivables

While the consultative document does mention the treatment of purchased receivables (where capital treatment follows that of the obligor), it is silent on the modalities of 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”).

If the Basel Committee are to reject our alternate proposal on corporates and maintain a standardised approach for large corporates, we suggest to the Committee to confirm that the top down approach under IRB for purchased receivables remains applicable, even if banks are not able to distinguish between large corporates and middle market corporates.

7) Specialised lending exposures

In our view, given its bespoke, structured nature, specialised lending transactions are inherently ill-suited to risk standardisation and it is essential that risk modelling be retained for these exposures in order to be able to recognise the value of the underlying collateral in these deals appropriately.

Comparison of historical data and current proposals

With the current proposals, the BCBS is proposing that specialised lending transactions be treated under the revised Standardised Approach (RSA) proposals or under the current slotting methodology currently available under the IRB approach.

A comparison of the risk weightings under the IRBA approach based on industry wide average historical data and the RSA proposals show the ultra conservative nature of these proposals although individual firms may of course have higher or lower risk weights:

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20 Source for project finance: S&P Capital IQ Annual Global Project Finance Default and Recovery Study, Dec 2015, discount rate used is loan discount rate; object finance: GCD data (risk free discount rate +5% conservatively added to
**Specialised lending is a business that is not suited to standardisation**

On average, specialised lending has exhibited low risk levels, particularly when conducted by specialised, expert teams within banks. This is due to a combination of the expertise of the teams carrying out the business and the tailored, structured and collateralised nature of these products. For example, for project and object finance, structures are put in place so that the lender controls the cash flows generated from the underlying asset(s) and/or benefits from the security of the asset itself. Banks also benefit from diversification across their specialised lending portfolios, where the values of different infrastructure assets, aircraft, vessels, rolling stock and various commodities are not correlated.

While losses are low on average, they can of course vary depending on the level of conservatism, structuring and protection built into the deal. Banks can structure loans with conservative terms and Loan-to-Value ("LTV") ratios, etc., taking into tight collateral structures. If they wish to be more aggressive, they might include higher LTVs and looser structures in their deals, potentially leading to higher losses in cases of default. Under IRB models, this is precisely captured in banks’ rating and Loss Given Default ("LGD") levels. Internal modelling is therefore the best tool to capture the full range of different risk levels these transactions can exhibit, and to price them accordingly.

In other words, specialised lending is by definition a non-standardised business. It is not suited to flat risk weights such as those proposed in the revised SA and put forward as an alternative to internal models in the current consultation. Under any form of standardised or slotting approach to capital requirements, it is near-to-impossible to design a method that is sufficiently risk sensitive and recognises the value of the different types of underlying structures and collateral types. Flat risk weights or risk weights that depend on only a few risk drivers are simply not appropriate for this business type.

Moreover, under the proposed framework, an unsecured loan to an unrated corporate would also receive more favourable capital treatment than a structured and secured loan to a specialised lending entity. For example, a corporate loan to an airline without security on an aircraft would receive a lower risk weight (100%) compared to a loan with a specialised lending structure, i.e. with a 1st lien security on the aircraft LGD average in order to get an equivalent loan rate discounting); commodities finance: AFME discussion paper (shared with the BCBS TFSA).

21 Slotting criteria RW estimated on best efforts basis with the following assumptions: maturity above 2.5 years for project and object finance and 1 year for commodities finance; 70% of the portfolio would be in category 1 with RW of 70% or 90% (i.e. 80% on average), 30% in category 3 and 4 with RW of 115% or 250% (183% on average).

22 AFME will shortly release a series of discussion papers on the various types of specialised lending exposures that will set out in detail the specific features and risk characteristics of these products. We will share these with the Basel Committee in due course.
(120% under the new RSA proposals). In this example, the value of the collateral appears to make a negative contribution to the risk weight.

As they stand, the proposals do not seem to be consistent with the general principle that a collateralised exposure should not receive a higher risk weight than an otherwise equivalent unsecured exposure.

Lastly, we note that specialised lending will also be unduly effected by the proposals for CCFs put forward in this paper (and linked to the levels of CCFs set out in the RSA).

In all markets, emerging and developed, and especially where there is high demand for large infrastructure, asset or raw materials financing, the steep increases in specialized lending risk weights that would result for firms under the current proposals would be highly penalising, with potentially higher economic impacts in jurisdictions where capital markets are not sufficiently deep and alternatives to bank financing of such projects and assets are limited.

The Associations therefore urge the Committee to take into account the negative consequences of using a standardised approach either as an alternative to internal modelling or as the basis for a capital floor for specialized lending exposures that would be based on a slotting approach.

Data availability for specialised lending

Moreover, although it is a low risk form of finance on average, specialised lending does not constitute a “low data” activity. As the sources below show, there are collectively throughout the industry a significant number of data points available to assist banks in their modelling and that firms could use to backtest their models to show that they perform robustly.

<table>
<thead>
<tr>
<th>ODF</th>
<th>LGD</th>
<th>Date</th>
<th># banks/investors</th>
<th>Data Period</th>
<th># of projects</th>
<th># of defaulted projects</th>
<th># of defaulted &amp; resolved projects</th>
<th>Discount rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>S&amp;P</td>
<td>1.50%</td>
<td>23.4%</td>
<td>Dec 2015</td>
<td>35</td>
<td>1987-2014</td>
<td>7959</td>
<td>624</td>
<td>377</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loan rate</td>
</tr>
<tr>
<td>GCD</td>
<td>16%</td>
<td>2016</td>
<td>40</td>
<td>2003-2013</td>
<td>255</td>
<td>1990-2014</td>
<td>425</td>
<td>226</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Risk free rate</td>
</tr>
<tr>
<td>Moody’s</td>
<td>1.54%</td>
<td>19.6%</td>
<td>17 March 2016</td>
<td>50</td>
<td>1990-2014</td>
<td>5880</td>
<td>425</td>
<td>226</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Loan rate</td>
</tr>
</tbody>
</table>

It should also be noted that the presence of the underlying structures in these transactions implies that recoveries are not necessarily dependent on the geographical location of the deal, or the sector. As a result, the above data pools can be used as an average estimate of the asset class risk.

Importantly, in specialised lending, the above default and loss data is complemented by a range of additional observable data, including asset information such as valuation data (often observed and provided by external appraisers), future cash flows generated by the assets financed, commodities and output prices (e.g. gas and electricity prices), as well as macro economic data, etc. For specialised lending businesses, theoretical models based on these types of data perform well as they reflect both the characteristics of the underlying assets (e.g. in terms of volatilities of asset values or cash flows generated), as well as the specific structures of the deal (e.g. the existence of off-take (sale) contracts, the loan’s amortizing profile, political risk levels, if any, etc.)

Beyond this broad range of data sources, expert analysis provided by external parties is also a core input into understanding the risk profile of these transactions.
Alternative proposal: retain internal modelling for specialists, defined according to objective criteria

Highly experienced, specialised firms with robust risk management practices should be allowed to retain internal modelling when they can prove their level of specialism/sophistication according to a number of objective criteria. We recommend that the BCBS develop such criteria based, making distinctions between the various types of specialised lending businesses as required. We provide below ideas for key elements that could be included in such criteria.

For all specialised lending businesses, in our view the key criteria is the presence of a dedicated transaction management unit or similar middle office team/staff with extensive experience and a proven track record in project/object/commodities (as relevant) portfolio management. The underlying portfolio(s) should also be sufficiently large and diversified.

For project finance, we suggest that the Committee examine the following, additional criteria as being indicators of specialism:

- Appropriate organisation of origination and monitoring teams, with dedicated monitoring staff, so as to ensure that experience of and lessons learned from deals in difficulty is shared
- The monitoring team monitors a project through the construction and operational phases, reviewing monthly construction, periodic environmental and technical reports, including for instance on site visits. As it would have the responsibility for the day to day management of the book, including covenant monitoring, it would be able to detect ‘red flags’ early before a credit has substantially deteriorated. This team has the resources already in place to review and evaluate waiver requests and to begin a negotiated restructuring with the project sponsors often before a formal default has even occurred.
- This team would also typically be responsible for updating inputs to a project model throughout its life taking into account the banks’ experience and prevailing country and other concentration risk limits.
- The banks’ lending policy/guidelines should be updated on a regular basis.

For specialist commercial finance teams involved in commodities finance, criteria indicative of specialism may include the following:

- Specialist, long-term dedicated staff with non-commercial incentives
- Carrying out daily monitoring of transactions, limits and collateral availability/valuation tailor-made financing structures, in line with underlying physical trade flows and with control over goods and cash flows, ensuring that funds are used for a clear and self-liquidating purpose
- Regular independent collateral inspections, borrowing base audits, in-depth risk assessments of clients’ own risk management
- Direct contact with clients among non-commercial staff
- Portfolio management functions carrying out sector/trend analysis
- The possibility for risk management staff to decline any new transaction (uncommitted nature) and reduce exposures (short-term nature) adequately based on early warning signals, hereby preventing defaults from occurring in the first place23.

For object finance, the criteria would in substance be the same as the above, notably:

- Specialist staff with in-depth knowledge of the industries and assets, direct client contact, access to specialised research desks/external experts, etc.

23 For commodities finance, it is important to note that there may therefore not be a lot of “default data”, as defaults may not occur for the reasons explained above. In addition to default data, the track record and size of performing short-term exposures is also very relevant in measuring the risk of such portfolios.
• Regular monitoring of transactions, limits and collateral valuation, option to inspect the collateral, etc.
• A large portfolio, with diversified assets and diversified geographical exposure

If need be, another alternative for supervisors could also be to update existing IRB data / process requirements in light of what EBA has recently written to assess the quality and comparability of ECAIs risk assessments (i.e. providing further precisions around required data history, governance, convergence of methodological approaches, etc.24).

The existing slotting approach needs to be significantly improved

<table>
<thead>
<tr>
<th>Risk Cat 1</th>
<th>Risk Cat 2</th>
<th>Risk Cat 3</th>
<th>Risk Cat 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>70%</td>
<td>90%</td>
<td>115%</td>
<td>250%</td>
</tr>
</tbody>
</table>

As shown in the table above, the current slotting approach is comprised of only 4 buckets (excluding defaulted assets) and is far from being sufficiently granular or well-calibrated to be able to appropriately reflect the risks of specialised lending transactions.

As pointed out previously in our response to the RSA proposals, if slotting is retained there would be need to distinguish between the different products subsumed under the heading “specialised lending”. In terms of slotting, this would require the development of specific, more granular slotting tables where calibration is reassessed for each product category so that it is more in line with historical data. By way of illustration (and using S&P data25), project finance risk weights for counterparties rated between BBB+ and BB- and with LGD levels varying between 10% to 30% would range from 16% to 118%. These should be compared with the risk weights of 70% and 250%, respectively, the lowest and highest risk weights provided in the current slotting table. Moreover, we note that 1) within the S&P data set, more than half of the LGDs are below 10% and 2) according to the EBA26, in the EU, 70% of exposures that fall under the slotting approach are qualified as either category 1 or 2 exposures. In our view, this clearly demonstrates that the current slotting approach is insufficiently granular, particularly at the lower risk spectrum.

We also wish to recall that there is a precedent for recognising “preferential slotting treatment” or lower risk rates than those summarised in the above slotting table. Basel 2 sets out that when there is “a remaining maturity of less than 2.5 years or the supervisor determines that banks’ underwriting and other risk characteristics are substantially stronger than specified in the slotting criteria for the relevant supervisory risk category” that the risk weights for category 1 and 2 are both lowered by 20pp to 50% and 70% respectively. We recommend that, if slotting is retained as an alternative, that the Basel Committee removes the national discretion and give stronger guidance on what specific underwriting and strong risk management characteristics would qualify for use of preferential risk weights. We also suggest that they consider increasing the currently proposed 2.5 year maturity threshold as this is a tenor more common for corporate lending than in the specialised business.

We note however that the slotting approach is a form of “internal approach” and will not solve differences in risk weighting between firms per se, as it requires internal assessments and calibration27 or would need to be mapped on the basis of internal models.

24 see 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)
25 10 year cumulative default rates from S&P annual project finance study
26 EBA consultation on draft RTS on the slotting approach
27 As the EBA has recently recognised in its final draft RTS on assigning risk weights to specialised lending exposures where firms are given the flexibility to assign (internal) weights to the different criteria used to determine a slot.
If not mapped with internal model RWAs, the justification behind how the slotting approach is calibrated is likely to be difficult, as it includes both probability of default and loss given default concepts without distinguishing them. Back testing would also be difficult if not impossible and the calibration of expected losses would also be challenging.

We caution therefore against lending too great a preference to slotting approaches over internal modelling as slotting might create an illusion of greater harmonisation (i.e. the same risk weight for two transactions, but not the same risk for the same risk weight) but in fact results in a less precise risk assessment.

**Harmonising internal models**

We also recommend that the Basel Committee consider further examining the consistency of internal models for specialised lending. For instance, a relatively straightforward way of identifying sources of RWA variability could be to compare the criteria and mathematical assumptions used for specialised lending models (qualitative harmonisation). Additionally, consistency could also be assessed by referring to a common portfolio of deals, comparing their ranking in terms of risk weights and the proportions of risk weights between deals in the portfolio.

**Specialised lending – some definitional issues**

Based on the proposal for Corporate Exposures using the size as a determinant, borrowers qualified as Specialised Lending belonging to a large corporate entity will be treated under the Standardised Approach for Corporates. Specialised Lending should be excluded from these proposals and be treated based on its specifics, also to prevent regulatory arbitrage between exposure classes.

The reference to exchange-traded commodities in the existing definition of commodities finance is not reflective of existing practice and should be removed. In reality, the commodities finance business also involves financing non-exchange-traded commodities that are linked to an index (e.g. based on an exchange traded commodity), with a premium.

8) **CVA and counterparty credit risk**

The Associations acknowledge the Committee’s concerns regarding excessive variability in CVA RWAs as well as in the outcomes of counterparty credit risk models. We understand this contributed to the decision to remove IMA-CVA from the proposed CVA risk framework and to introduce an IMM-CCR floor. As with other areas of the overall framework, while we support the objectives of increased simplicity and comparability in counterparty risk modelling approaches, this has to be balanced with risk sensitivity. We believe that the decision to remove IMA-CVA and the proposal to introduce an IMM-CCR floor are skewed heavily towards simplicity and we are particularly concerned with the loss of risk sensitivity such changes would trigger.

We also regret that such significant changes are being introduced by the Committee after the relevant consultations. When the industry responded to the consultations on the Review of the CVA Risk Framework28, and to the initial version of SA-CCR29, we did so on the understanding that IMA-CVA would remain available and without being informed that Committee may introduce an IMM-CCR floor tied to SA-CCR respectively.

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28 BCBS Review of the Credit Valuation Adjustment (CVA) risk framework, July 2015 Consultation
29 BCBS non-internal model method for capitalising counterparty credit risk exposures, NiIMM, June 2013 Consultation
1. Proposals to Remove CVA Modelling and Changes to the CVA Risk framework

The Associations welcome the objective of consistency and coherence in CVA risk modelling approaches and thinks that the BCBS review of the CVA risk framework should aim at achieving this objective, which was also clearly intended with the first consultative paper on CVA. However, we disagree with the unexpected decision to eliminate IMA-CVA through the present consultation, as we believe that the CVA review should have considered not only the goal of simplification but also the need to preserve an appropriate level of risk sensitivity to foster good risk management. We also disappointed with the lack of dialogue with the industry ahead of that decision, and fear that the revised CVA risk framework – if kept unchanged – will lack risk sensitivity. We detail below our rationale as to why the BCBS should reinstate the use of IMA-CVA.

The observed variability in CVA RWAs could have been alleviated, for instance, by addressing the cause of the variability in the internal model approval process and referencing observable market inputs. In addition, the current 2016 CVA QIS exercise should have provided the BCBS with relevant data to perform further research and refine the calibration of the CVA risk framework.

We therefore question the reasoning of the BCBS behind the decision to remove IMA-CVA and ask for its reinstatement in the CVA risk framework. We also believe that the proposed CVA risk framework suffers from major weaknesses and would benefit from adjustments aimed at improving its risk sensitivity and its alignment with current CVA hedging practices. We would like to engage in a constructive dialogue with the Committee to address key outstanding issues.

Our key concerns relate notably to the:

- gap between Regulatory CVA and accounting CVA practices
- lack of risk-sensitivity of SA-CVA
- overly conservative calibration of BA-CVA overly conservative calibration.

We set out these concerns in more detail below, together with recommendations to improve the risk sensitivity of the CVA risk framework and its alignment with the way banks manage CVA risk.

- Maintaining Internal Models is essential to CVA risk management

The Associations think that the reservations of the Basel Committee as to whether CVA can be effectively captured within an internal model designed to capture market risks in the trading book are not justified. Banks effectively manage economic CVA risks using market and counterparty credit risk sensitivities. We therefore do not agree that CVA risk cannot be effectively captured by IMA-CVA, which promotes risk sensitivity. The removal of IMA-CVA will mean that the ongoing calibration that is achieved through the use of a historical scenario based Expected Shortfall calculation will be lost as banks are required to use prescribed regulatory shocks. This will mask any build up of risk that is relevant to the current portfolio as the shocks will not be sensitive to the current risk profile of the portfolio.

We also think that CVA risk will remain material despite greater use of central clearing and margining for non-centrally cleared transactions. Central clearing and uncleared margining do not cover the full universe of trades and counterparties. The reduction in CVA will therefore be limited and CVA risk will remain material, particularly for counterparties not required to clear or post collateral such as corporate and sovereign end users. Sound and efficient risk management is important not only to financial institutions, but also to the clients they serve who rely on derivatives to hedge away financial risks. Mandating SA-CVA will not only fail to reflect true underlying economic risk, but will also raise the cost of prudent hedging, which will be passed on to end-users, potentially driving end users to leave their risks unhedged, or to pursue less-expensive hedging options outside of the regulated banking sector. Neither of these outcomes is desirable as they will both result in an overall increase of systemic risk.
Finally, the removal of IMA-CVA is likely to increase the fragmentation among regional CVA frameworks if calibration issues are not solved at the Basel level. We therefore urge the BCBS to consider the reinstatement of IMA-CVA.

- The gap between Regulatory CVA and Accounting CVA remains significant

As already outlined in the answer to BCBS d325 consultation, we believe that capitalising a hypothetical IMM-based 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 that the new proposed concept of accounting based CVA exposures reduces the gap between current Basel 3 definition of Regulatory CVA and accounting CVA, which banks use to manage their economic risk. The adoption of accounting-based CVA is an important step in addressing some of the flaws of the current CVA RWA rules, which is of particular relevance given the proposed inclusion of market risk factors in CVA. However, we believe further alignment can be achieved in particular with respect to the covered perimeter (e.g. SFTs) or model parameter requirements (e.g. the same recovery rate is attributed to both secured and unsecured derivatives exposures).

- SA-CVA lack of risk-sensitivity

Of key importance is the improvement of SA-CVA which is being upgraded from IMA-CVA fallback to the mandatory 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 however one of the stated objectives of the Basel review of the CVA risk framework. For the sake of illustration, let us consider the stylised example of a high-yield basic materials corporate (bucket #11) with 125,000€/bp CVA counterparty sensitivity. As illustrated by the figure below, whenever the bank hedges CVA P&L of counterparties without available CDS, the bank incurs higher SA-CVA RWAs and hence capital charges than if it were not hedging.

<table>
<thead>
<tr>
<th>Hedge / Proxy spread mapping</th>
<th>Hedge CS01 (€/bp)</th>
<th>CVA PnL</th>
<th>SA-CVA K (option 1)</th>
<th>SA-CVA K (option 2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No hedge</td>
<td>0 open / risky</td>
<td>131,250,000</td>
<td>132,250,000</td>
<td></td>
</tr>
<tr>
<td>CDS referencing counterparty (&quot;liquid name&quot;)</td>
<td>125,000 flat</td>
<td>13,125,000</td>
<td>13,125,000</td>
<td></td>
</tr>
<tr>
<td>proxy CDS referencing different entity in same bucket</td>
<td>125,000 flat</td>
<td>150,222,500</td>
<td>150,222,500</td>
<td></td>
</tr>
<tr>
<td>proxy CDS referencing different entity in IG bucket (#4)</td>
<td>125,000 flat</td>
<td>166,858,900</td>
<td>176,744,100</td>
<td></td>
</tr>
</tbody>
</table>

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 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:

- 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
- 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 significantly underestimates the correlation effectively observed between different tenor series referencing the same name.

We recommend that the Basel 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 Basel Committee’s disposal to provide further support on this approach
- Reviews correlation assumptions on credit spread risk factors (across tenors for a single counterparty, across counterparties belonging to the same bucket and across buckets).

We furthermore 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.

- BA-CVA is overly conservatively calibrated

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

- The EE variability component lacks risk sensitivity and is overly conservatively calibrated. The EE variability component is proxied through the unhedged credit spread component. As such, it does not reflect the true exposure to underlying risk factor changes and importantly cannot be reduced through hedging. This means that the additional charge is divorced from the economic exposure. Furthermore, the EE variability is implicitly included through the future exposure simulation under both IMM and SA-CCR that is part of the EAD calculation.
- The exposure basis under BA-CVA is not aligned with the economic risk. This is particularly true if the exposure is calculated under SA-CCR. This also means that CVA counterparty hedges are less effective to reduce the CVA charge under BA-CVA compared to SA-CVA.
- Risk weights do not reflect the creditworthiness of counterparties sufficiently. Indeed, under the current BA-CVA proposal, an AAA-rated counterparty would be given the same risk weight as a BBB-rated counterparty belonging to the same risk bucket which jeopardises the risk sensitivity of the approach. The granularity of risk weights should be increased to better reflect counterparties’ creditworthiness.

Compared to the 2015 BCBS CVA consultative document, we acknowledge that risk weights have significantly decreased as the shocks are no longer based on a one year time horizon. We also understand that Committee wants to keep risk weights under BA-CVA consistent with SA-CVA. However, given that BA-CVA represents a far less risk-sensitive methodology than SA-CVA, this leads to disproportionate capital charges as evidenced industry impact studies based on the same data as collected by the Committee. Given the potential double count and the lack of risk sensitivity of BA-CVA, we propose to remove the EE variability component. Even without the EE variability component, BA-CVA would still be materially higher than SA-CVA according to industry impact studies.

We appreciate that the calibration of BA-CVA is still work in progress and are committed to supporting the Basel Committee in this exercise.
2. Counterparty Credit Risk – Proposed Floor on the IMM Approach

The industry has significant concerns about the Basel Committee’s proposal to introduce a floor to counterparty credit risk capital derived from the Internal Model Method.

The Internal Model Method (IMM) has its origin in the credit risk models used by banks to measure potential future credit exposure for OTC derivatives and securities financing transactions. The models are core part of the credit risk management framework and are used for setting individual counterparty and sector risk limits, a bank’s risk appetite, stress testing and economic capital assessments.

The Basel Committee introduced IMM and the Standardised Method to add to the existing Current Exposure Method (CEM). The three methods were intended to represent different points along a continuum of sophistication in risk management practices and were structured to provide incentives for banks to improve their management of CCR by adopting more sophisticated practices. The use of IMM in the regulatory framework has driven improvements to banks’ risk management particularly through the stringent independent validation and backtesting standards required by regulators. Banks will continue to use internal models to manage their risks but the proposed floor will disincentivize them from applying for IMM and supervisors will have less insight into the exposure modelling and risk management of their supervised banks.

- Banks should be given the opportunity to address areas of divergence

It is important to highlight that the IMM framework has always allowed banks flexibility in measuring risks with the goal of producing greater accuracy in the estimates of counterparty risk exposure, therefore some variation in the measure of Expected Exposure and consequently EAD was intended.

The Committee published its Regulatory Consistency Assessment Programme (RCAP) report on risk weighted assets for counterparty credit risk in October 2015. There were a number of recommendations in the report to harmonise firms’ internal modelling practices, covering risk factor modelling, risk factor calibration, frequency of calibration, determination of stressed EEPE period, number of scenarios simulated, the granularity and number of time steps, modelling margining during the Margin Period of Risk (MPOR) and the use of different pricing functions in the IMM engine. Banks have not previously been able to assess the extent or cause of RWA variability because the modelling systems, techniques and model outputs used by banks are proprietary information. While the report recognises that there are limitations to the analysis performed, the recommendations represent a roadmap to reducing RWA variation in counterparty credit risk capital. We would propose that instead of introducing a floor, banks are given the opportunity to address the RWA variability highlighted by the Committee, as they are doing in other areas of the framework together with regulators. We would highlight that not one of the recommendations in the report was to introduce a floor.

Lastly, for IMM, there is a rich dataset of historical market prices and volatilities for equities, interest rates, FX, commodities and credit markets through a cycle that includes periods of stress. We note that the report on risk-weighted assets for CCR (“BCBS 337”) did not identify data quality as a driver of variability and did not raise any recommendations related to choice of calibration (Section 3.4.2.2).

- Exposure modelling should retain risk sensitivity

We have significant concerns that introducing an exposure level output floor in addition to floors on input parameters and an aggregate floor will materially affect banks in different ways. In particular, a floor which is based on SA-CCR - which is still a notional based measure of risk – will encourage banks to reduce notionals but not necessarily reduce risk. There could be less transparency on where risks are being built up as the use of standardised approach floors could mask risk taking. We believe it is imperative to once

30 http://www.bis.org/bcbs/publ/d337.pdf
again reiterate the importance of risk-sensitivity to the capital framework and the internal risk monitoring and management performed by credit risk departments. The IMM approach allows banks to model the specific risk factors to which they are exposed, as well as portfolio composition, volatilities and correlations. The level of accuracy delivered by IMM is simply not achievable with SA-CCR. Furthermore, if flooring was at the individual netting set or counterparty level, the end result may be that the overall CCR floored IMM EAD will be in excess of the SA-CCR EAD, which would be both an unintuitive and undesirable outcome.

- The Committee should consider the effect of overly conservative calibration of SA-CCR

The forthcoming WGMR rules on Initial Margin (IM) requirements for non-cleared bilateral derivatives are intended to ensure that counterparty credit risk to financial counterparties in the system is significantly reduced. Instead of holding capital to cover losses in the event of a default, segregated prefunded initial margin will cover the risk of closing out and replacing derivative contracts. This means that the exposure modelled by IMM will be significantly reduced as the initial margin received may be used to reduce exposure when the firm has an approved IMM model capable of modelling collateral flows.

We observe two common situations where the exposure calculated under SA-CCR will diverge from the IMM exposure, reflecting the overly conservative calibration of SA-CCR:

- SA-CCR is not well designed to model the impact of IM. Exposures calculated under IMM and SA-CCR will diverge as the posting of IM increases. Indeed, as the Initial Margin will cover 99% of potential future exposures as per regulatory requirements, it will reduce the EAD amount calculated under IMM to almost 0. In the meantime, due to the conservativeness of SA-CCR’s multiplier and the maturity factors formulae, a material residual EAD amount calculated under SA-CCR will remain. An overcollateralization of 10 times the aggregate PFE add-ons is required to get a 95% EAD reduction. In addition, it should be noted that IM is expected to be primarily posted in securities which are subject to haircuts in SA-CCR. This will further reduce the benefits of IM compared to IMM where collateral and derivatives fluctuations can be jointly modelled. Using SA-CCR as a floor will therefore negatively impact the liquidity of the dealer-to-dealer market for derivatives, as the cost for banks - when acting as market-makers - to rebalance risks among themselves would rise due to the combined effects of additional funding to post IM and higher capital requirements. As a consequence, the profitability of market making activities would be undermined, ultimately leading to a decrease of the liquidity of the client-to-dealer market.

- SA-CCR will also have a significant impact for uncollateralized, directional portfolios which are generally typical of end-users of derivatives hedging financial risks, as it does not reflect the true level of underlying economic risk. This is due to conservative assumptions on diversification benefit (no offsetting is allowed across hedging sets), significantly high add-on factors, and the 1.4 alpha factor. The higher capital requirements will reduce the ability to service clients, which could significantly increase the cost of hedging for end-users – potentially driving them to leave their risks un-hedged or to pursue less-expensive protection providers outside of the regulated banking sector.

The industry has also identified several areas where SA-CCR appears to suffer unavoidable deficiencies resulting from its standardized nature. IMM remains better able to capture risks, properly account for diversification and hedging and permits swifter adaptation when the environment changes. We highlight a number of additional issues relating to SA-CCR and its application as a floor to IMM, and make suggestions aimed at improving SA-CCR’s risk sensitivity in Appendix 1 of this response.

The Committee should also consider how the WGMR rules will affect the level of any floors. A floor calibrated from current prudential data will not be appropriate as the difference between IMM and SA-CCR will widen as the full roll out of WGMR occurs over the next couple of years. A floor designed as a backstop today which is binding for a few banks will be more likely to bite for a larger number of banks in the future. This would undermine the use of IMM in the capital framework.
• **IMM is already subject to conservative adjustments introduced in Basel 3**

The IMM approach is already subject to a conservative adjustment at the portfolio level which was prescribed in the Basel 3 framework. Under the Basel 3 framework banks must use the greater of the portfolio-level capital charge based on Effective EPE using current market data and the portfolio-level capital charge based on Effective EPE using a stress calibration. This must be applied at the total portfolio level and is not applied on a counterparty by counterparty basis. This adjustment was only implemented at the beginning of 2014 and required significant investment in computing power to run all simulations twice under different assumptions. We would strongly recommend that Committee gives the current adjustment time to be reviewed and reconsiders in this context the relevance of the proposed IMM floor.

• **Clarification regarding usage of IMM-CCR**

We finally note that footnote 10 of the current consultation explicitly disconnects the use of IMM from the risk weight approach: “The proposals set out in this section to require the use of the standardised 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 aligned to the industry view that the considerations for IRB data are irrelevant in the context of exposure modelling and as such there should not be any linkage between the use of IRB and the use of IMM.

However, the consultative paper on the Revisions to the Standardised Approach for credit risk (SA-CR) appears to remove IMM-CCR exposures for banks that do not have an IRB permission. We consider that footnote 10 in the present consultation should override the proposal in the revised SA as we see no rationale for linking the permission to model exposures with those for modelling PDs and LGDs, the former models being a measure of the amount at risk at the risk horizon and the latter an assessment of the counterparty’s creditworthiness. We note further that data available considerations are irrelevant in the context of exposure modelling. We also note 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.

3. **Own estimate of haircuts**

Lastly, the Associations think that a distinction should be made between the modelling that is required for calculating LGDs and that for calculating the haircuts required for collateral. LGD models are statistical models based on historical analysis of recovery from defaulted counterparties whereas haircuts for collateral are modelled on historical market data using well established VaR modelling. If the Committee maintains LGD constraints, including supervisory LGD levels under the foundation approach, this should not imply that modelling of haircuts is not possible. As such own estimates of haircuts should be allowed, including under foundation-IRB.
9) Parameter floors

In our view, the rationale and objective of the proposed floors requires further consideration by the Basel Committee within the context of the overall coherence and calibration of the future framework.

**PD floor**

Page 6 of the consultation document states that “PD floors address the problem that in low-default portfolios, a large number of observations are needed to give confidence in the estimated PD”. However, when setting out its arguments for the removal of internal modelling for so-called low-default portfolios where the Committee says, on page 3 “banks, other financial institutions and large corporate are usually considered to be low-defaults exposures, which […] makes reliable parameter estimation difficult.” If the Committee is addressing the issue of unreliable parameter estimation through the removal of internal modelling, the addition of a PD floor is duplicative and unnecessary.

The Committee would also need to specify the level of application of the PD floor (e.g. at grade level).

**LGD floor**

We are unclear as to the rationale behind the proposed segmentation between secured and unsecured exposures. While segmentation is indeed an important risk driver, it is not the only one. The Committee may wish to test other risk drivers that have been identified in the literature such as 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 the presence of guarantees (Dermine and Carvalho 2005). These other important risk drivers could very well contribute to LGDs below 25% even for unsecured loans.

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

Lastly, we note that the application of an input floor to defaulted assets is irrelevant.

**LGD floors are particularly problematic for some business lines, such as leasing (secured equipment finance)**

The proposals would result in less sensitivity to the maturity and lifecycle of a contract (in leasing, LGDs are often lower close to maturity). They would also compromise the long-standing 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 forecasting and benchmarking expected loss against other portfolios).

Secondly we would like to emphasize the specificities of the equipment finance. This segment is very specialised and the players have high knowledge of the underlying asset, together with dedicated processes for collecting and selling equipment from any defaulted counterparts. The liquidity and future price of the asset is a key assessment point in the credit rating 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 loss. In addition, a large share of defaults with negative losses are observed, i.e. these contracts result in a gain for the lessor. For a large share of the underlying asset classes that are financed this way, observed LGDs are much lower than the proposed floors, and this was observed even at the height of the financial crisis. The 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 levels are an integral part of the business case for equipment finance, which makes it possible to provide financing to companies that would normally not get traditional bank financing. In particular, equipment finance plays a very important role in supporting the SME corporate market. Applying a very conservative floor to LGDs, 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.

**EAD floor**

We disagree with the proposed floor for EADs and consider that it should be removed. Please see below section 11 for our full set of comments on EADs/CCFs.

**10) Parameter estimation practices**

*Moving to a Through the Cycle (TTC) rating philosophy is a very significant change*

Given the need for banks to overhaul accounting models in light of latest IFRS / US GAAP standards, and the use of internal ratings at least on the IFRS side, banks will expect to have ratings systems that are as consistent as high as possible between accounting and regulatory applications— not only for cost reasons, but also for practical considerations and use test requirements. In this respect, a clear and consistent definition of how ratings should be designed, attributed and updated is needed.

Specifically, we think the Basel Committee should take additional time to compare the PD rating requirements in the present consultation (para 4.1) and “Guidance on credit risk and accounting for expected credit losses (ECL)” - December 2015 (mainly Principles 2 &3) where we think there are a number of inconsistencies.

We also recall that TTC and Point in Time (PiT) characteristics had been defined in Working Paper 14 from the BCBS in February 2005: “Studies on the validation of internal rating systems”. The summary below also refers to that working paper, however it would be helpful to understand the status of this paper and whether it is still a valid reference or not.

We now understand that TTC PD rating assessments are required by current consultation, at least for corporate portfolios. Under the current Basel agreement, such assessments are left to the discretion of banks, in line with their internal risk management and rating practices, with a requirement to perform prudent PD assessments as a “Long Term Average of 1 year Default rates”. This is largely in line with the rating practices of some Agencies (e.g. S&P, Moody’s) on large corporate portfolios, but is not necessarily in line with rating practices on SME and more specifically retail portfolios, which are usually more reactive to short term default rate variation assessments. More importantly, the approach put forward in the current consultation appears to be inconsistent with the Guidance on ECL, promoting PiT - Forward Looking estimates for ECL, i.e. taking into account both intrinsic counterpart risk and business cycle conditions.
A summary of the relevant Basel document cross-references is provided below:

<table>
<thead>
<tr>
<th>Consultative Document IRB Changes &amp; Floors</th>
<th>Guidance on Credit Risk &amp; Accounting ECL</th>
</tr>
</thead>
<tbody>
<tr>
<td>§4.1: “Ratings stable over time &amp; business cycle”</td>
<td>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.”</td>
</tr>
<tr>
<td>• This sounds like PD Rating TTC characteristic</td>
<td>Article 45: “ECL estimates must be updated on a timely basis to reflect changes in credit risk grades…”</td>
</tr>
<tr>
<td>• We think is it relevant to ask for a stability KPI like: share of ratings migrations from the diagonal &lt;X%? (15~25%)? Note that this indicator should also depend on the number of rating slots.</td>
<td>• This sounds like PD PIT Rating characteristic</td>
</tr>
<tr>
<td>§4.1: “Migrations generally not due to position changes in the business cycle”</td>
<td>Article 31 b):“include criteria to duly consider the impact of forward-looking information, including macroeconomic factors”</td>
</tr>
<tr>
<td>• 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)</td>
<td>• Should the business cycle be determined by macroeconomic factors?</td>
</tr>
<tr>
<td></td>
<td>• This looks like PD PIT characteristic as credit risk and Observed Default Rates assessments should depend on the position in the business cycle</td>
</tr>
</tbody>
</table>

Particularly for retail portfolios, the current consultation refers to best practice methodologies to manage seasoning effects. However, a link to PIT rating system requirements does not appear so clearly. On the contrary, the Guidance on ECL does not mention any retail specificity, but similarly to Corporate portfolios, promotes PIT PD ratings.

Finally, the expression “PD should be estimated for each rating grade” is not clear and should be clarified by the regulator as it raises questions as to the number of rating grades that should be used and whether and how these should be aligned (with external or internal scales for instance).

**LGDs**

As already mentioned above (see the case of leasing above), the calibration of secured LGD floors for non-financial collateral appears to be too high, providing very little benefit for the secured position and no recognition of the requirements that are incumbent on an IRBA approach. There is only a maximum possible benefit of 5% between the simplified IRBF LGD values and those values underpinned by robust data under IRBA. This is also reflected in the differential between the unsecured LGD floor (25%) and the secured LGD floor for physical assets (20%). This is highly punitive on all secured lending where the collateral recognised is non-financial in nature and will lead to cost increases, funding availability and economic growth issues.
We also disagree with para 4.2.3 of the consultation setting out the application of a floor to the downturn add-on in addition to the floor on the overall LGD. We note that such a floor unduly overlaps with the general parameter floor. Clarification will be needed on how these floors interact to avoid double counting. We recommend that the Committee removes this proposed LGD floor to allow institutions to model accurate, risk-sensitive LGD values within the parameters of a robust model framework supported by validation and backtesting.

We also believe that there is a fundamental flaw in the proposed LGD floor for IRBA fully and partially secured exposures as described in Section 4.2.4 of the consultation. The proposed floor effectively enforces the simplified supervisory collateral haircuts (50%) in order to calculate the level of secured exposure (Es), and by capping at the exposure value, does not recognise any benefit for over-collateralisation - the effective recovery rate as a percentage of the collateral value actually decreases as collateralisation increases.

**Maturity**

One of the notable implications of the proposed changes is the removal of the maturity adjustment for banks, financial institutions and all corporates with revenues above EUR200mn. A maturity adjustment was introduced by Basel in the IRB approach because both intuition and other empirical evidence indicated that long-term credits are riskier than short-term credits. However, the standardised and Foundation IRB approaches do not have maturity adjustments as provided for in the IRB approach.

We believe that the removal of a maturity adjustment from the capital framework is not justified by the Basel Committee’s own analysis and is inconsistent with the objectives of balancing simplicity, comparability and risk sensitivity.

The Committee’s own analysis on risk weight variability states that “*Maturity does not appear to be an important source of RWA variations*”\(^{31}\). The report indicates that for the Corporate and Sovereign exposures classes there is “*no observed impact*” on RWA variability from the Maturity parameter and there is also no significant impact from the Maturity parameter on RWA variability for bank exposures. Therefore, there is no meaningful justification for removing maturity from the capital framework for the purposes of increasing comparability. Removing the maturity adjustment does increase simplicity, but this comes at the expense of reducing risk sensitivity and, potentially, a significant increase in capital requirements.

There is a good case for retaining the risk sensitivity in the capital framework from Maturity adjustments. The Pillar 1 component of the Basel capital framework is calibrated to ensure that a bank’s capital is sufficient for a one year time horizon\(^{32}\). In the proposed rules, all else being equal, overnight transactions and 30 year transactions will have the same risk weights applied, however, if a bank lends to a corporate on an overnight basis then the default probability of the counterparty in one-years’ time is less relevant than the default probability over the next day or week. Intuitively, the credit risk in transactions with longer maturity is greater because there is more time in which the counterparty’s credit quality could deteriorate. For an overnight transaction there is a low probability that a counterparty’s credit quality will change significantly from one day to the next. There will also be a good understanding on the current state of the economy and credit markets. But over a longer period, for example a year or more, events may change both in the credit markets and for the individual counterparty.

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\(^{31}\) [http://www.bis.org/publ/bcbs256.pdf](http://www.bis.org/publ/bcbs256.pdf)

\(^{32}\) Pillar 2 and capital planning analysis are intended to ensure that an individual bank’s capital requirement is appropriately calibrated for the capital planning horizon (eg 2-3 years)
In the current framework, when calculating the risk weight for fully-collateralized capital market driven transactions (e.g. securities financing transactions), the IRB approach allows banks to apply an effective maturity adjustment of less than one year subject to meeting certain conditions. These conditions include daily revaluation, daily re-margining and the prompt liquidation or setoff of collateral in the event of default. The maturity adjustment in the IRB approach reduces the risk weight for short term transactions and reflects economic intuition that short-term credits are less risky than long-term credits. The application of the standardized approach to capital market driven transactions will result in a significant increase in business line capital requirements.

We recommend that a maturity adjustment should be retained in the capital framework to reflect the lower credit risk of short term exposures. For exposures on Foundation IRB a fixed Maturity of 2.5 years should be replaced with the Maturity of the actual transaction in years. If Basel deems it appropriate to retain proposals to apply a mandatory standardised approach for certain exposure classes, then a risk weight adjustment should be applied to reflect the reduced credit risk of short term exposures.

11) Off balance sheet exposures (EADs/CCFs)

The current proposals are extremely restrictive and will result in banks having to default to the RSA CCF levels in the vast majority of cases. As noted in our response to the consultation on the standardised approach, the proposed standardised CCF levels are unduly high and insufficiently granular. The combination of these proposals (as well as the cross-reference to the RSA CCFs in the leverage ratio proposals) will have a significant negative impact on the clients who rely on the products associated with CCFs and one of the areas of the proposals that we believe will lead to the most problematic increase in capital requirements, which we view as being inconsistent with the goal of the Committee to avoid significant increases in capital.

The scope of modelling available for CCFs should be consistent with that of LGDs. In the Association’s view, CCF modelling should be retained for all corporate exposures classes, including for non-revolving products, as well as for trade finance and specialised lending exposures. Moreover, they should not be subject to the floor being proposed. We also believe that CCF levels for unconditionally cancellable commitments should be set a 0% consistently throughout the advanced and standardised approaches.

CCF levels across the various approaches of the framework:

<table>
<thead>
<tr>
<th>OBS category</th>
<th>Current SA</th>
<th>Current IRBF</th>
<th>Proposed RSA &amp; IRBF</th>
<th>Our understanding of proposed IRBA</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCCs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Retail</td>
<td>0%</td>
<td>0%</td>
<td>[10-20%]</td>
<td>Modelling ok (for revolving), floored at [5-10%]</td>
</tr>
<tr>
<td>Corporate</td>
<td>0%</td>
<td>0%</td>
<td>[50-75%]</td>
<td>Modelling ok (for revolving), if IRB (ie small Corporate only); floored</td>
</tr>
<tr>
<td>Non UCCs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;1 year</td>
<td>20%</td>
<td>75%</td>
<td>[50-75%]</td>
<td>Modelling allowed only for IRBA perimeter/revolving and floored at [25-37.5%], otherwise RSA/IRBF</td>
</tr>
<tr>
<td>&gt; 1 year</td>
<td>50%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NIFs &amp; RUFs</td>
<td>50%</td>
<td>75%</td>
<td>[50-75%]</td>
<td>[50-75%]/no modelling</td>
</tr>
<tr>
<td>Transaction related</td>
<td>50%</td>
<td>50%</td>
<td>50%</td>
<td>Typical counterparty likely to fall under RSA/IRBF regulatory treatment – very limited modelling</td>
</tr>
<tr>
<td>contingent items</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST self liquidating L/Cs</td>
<td>20%</td>
<td>20%</td>
<td>20%</td>
<td></td>
</tr>
</tbody>
</table>

33 paragraph 321 of the Basel 2 Accord
Impacts of the proposals

As illustrated in the above table, the combination of the proposals to remove CCF modelling (in most cases either entirely or in a few remaining cases through the imposition of modelling constraints together with a 50% SA CCF floor), and the resulting default to the unduly high regulatory CCF levels proposed under the RSA, significantly overstated the risks associated with cash commitments and contingent facilities. These CCF levels are neither reflective of available industry data nor experience and the overlay of a standardised capital floor further amplifies the issue.

It is important to stress that the cumulative changes proposed for CCFs are among the most significant areas of change and expected impact and are viewed by industry as being entirely inconsistent with the goal of the Committee to avoiding increases in capital requirements. We also wish to recall that the proposed SA CCFs are also referred to in the calculation of the leverage ratio for the determination of the leverage exposure for determining off balance sheet items. Increasing SA CCFs will therefore also impact the leverage ratio and the magnitude of this impact is likely to be significant. Given these interconnections across the framework, it is extremely difficult to correctly design, calibrate and reflect on the impacts of one aspect of the CCF framework without this holistic view of the full set of proposals that relate to CCFs.

We are very concerned that the resulting overcapitalisation will harm banks and their customers, potentially with wider economic and financial stability consequences.

In particular, clients that rely on the arrangements to which the new CCF regime will apply will find the availability or accessibility of such products restricted through increased costs of payment and financing facilities. We would assume that the spread charged to the borrower would follow the level of the proposed CCFs linearly.

In the words of the Association of Corporate Treasurers “working capital management is vital for the generation of sustainable cash flow and survival of all companies”. Commitments and contingent facilities are an important tool for corporate treasurers to manage their liquidity and deal with unexpected delays or demands in payments. If credit conversion factors no longer reflect the real likelihood of usage of commitments, they will be mispriced and therefore reduce their usefulness as a tool for corporates. In our view, this will be damaging to the wider financial stability, as it will make poor economic performance more likely, which in turn may actually lead to an increase in risks faced by banks. We are also not convinced that it would be economically likely for non-banks to provide an alternative to these banking services. Unlike a loan, where unregulated activities can play a role, the cost of the risk management of liquidity risk is something that only the banking sector can efficiently bear. It would therefore be perverse if regulators choose to misallocate risk in an area that should be the core role of the banking system.

The Associations also note that regulators have acknowledged that liquidity risk management by banks will require the use of behavioural assumptions. It would be inconsistent if regulators at the same time would not allow the same behavioural assumptions to be used for the assumptions underlying the likely usage of contingent facilities. In our view this liquidity risk of facilities that are less likely to be utilised is of more importance than the possible capital impact of a facility with low likelihood of being called.

Should regulators view their proposed CCF’s as justified on the basis that if systemic issues arise there would be a large call on such facilities that would threaten financial stability, then again we would think that this would be better captured under liquidity risk management and stress testing as opposed to capital requirements.
Definitions

The Associations agree that clarification of the notion of commitment is necessary and that clarification will help reduce variations in practice.

However, as the proposed definition stands, it attempts to group several types of commitments, with different features into a single concept. We think this amalgamation might not provide the clarity necessary to appropriately define CCF levels according to the varying risk characteristics of the various products and facilities that fall under the general category of off balance sheet exposures. We therefore recommend that distinctions be made, splitting the proposed definition into its components, and that these should be reflected consistently across the different approaches for credit risk:

- A commitment means any contractual arrangement that has been offered by the bank and accepted by the client to extend credit, purchase assets or issue credit substitutes.
- Unconditionally cancellable commitments are those commitments that can be cancelled by the bank at any time without prior notice to the obligor.
- Conditionally cancellable or revocable commitments are commitments that can be cancelled by the bank if the obligor fails to meet conditions set out in the facility documentation, including conditions that must be met by the obligor prior to any initial or subsequent drawdown under the arrangement.

Moreover, to avoid confusion as to whether internal risk limits are commitments or not, the Committee should further specify in the definition that internal risk limits set for credit risk management purposes should be distinguished from advised limits (which are commitments and that can have varying levels of revocability, including unconditionally cancellable commitments). Risk limits are not in any way a commitment on the part of the bank; they are simply internally approved and documented limits that provide banks with the ability to assess whether requests for drawdowns, letters of credit or guarantees should be issued within their risk management framework.

Treatment of Unconditionally cancellable commitments (UCCs)

As explained in our response to the RSA consultation, UCCs should receive a 0% CCF. This should be the case regardless of the approach a firm has to follow (SA, IRBF or IRBA). Indeed, for these types of arrangements that truly allow the bank to cancel the facility at any time in practice and where there are demonstrable controls and legal rights, monitored through robust internal governance, a 0% CCF is fully justified. We can accept that once a contractual arrangement has been accepted by both a bank and its client that a “type of commitment” has been made. But if that type of commitment is more implicit than explicit, as it would be in unconditionally cancellable facilities, we would expect the CCF framework to recognise these as deserving a 0% CCF.

The risk that a bank does not review its commitment and pays out funds unintentionally is in an operational risk which is captured elsewhere. Similarly, the risk that several clients draw on their facilities at the same time is caught via liquidity rules, as well as sector limits. We therefore see no rational explanation of why the Basel Committee would view such unconditionally cancellable facilities as deserving anything other than a 0% CCF. To some extent this would be equivalent to saying a Pillar 1 capital requirement should be imposed on the basis of the projected business plan for the next 12 months. If capital should be required for such transactions, the correct place to address this should be within Pillar 2. Moreover, accounting standards to not recognise these types of commitments as assets for banks and imposing a CCF higher than 0% would be a departure from the principle of aligning prudential exposures with balance sheet figures.

A list of examples of UCCs is provided in Appendix 2, together with relevant industry data that has helped inform our response to this section.
**Specific concerns relating to trade and commodity finance**

Another issue which requires clarity relates to trade finance OBS items.

Trade finance will be heavily impacted by the new emphasis on the RSA CCFs both through the proposed default to RSA CCFs for current IRBA and IRBF firms, as well as through the EAD/CCF floors on IRBA. As a result, the exposures that will be the most impacted are those to Banks (e.g. bank to bank confirmed letters of credits) and exposures to large corporates and mid-market firms (within this bracket of exposures Receivables Finance business is heavily impacted).

We understand that no change was proposed to the SA CCF for short-term self-liquidating letters of credit arising from movement of goods or to the SA CCF for transaction related contingent items and these products will continue to receive CCF treatment of 20% and 50% respectively.

However, we recommend that explicit guidance be provided on the CCFs applied to off-balance sheet trade finance exposures (e.g. import L/C, export L/C confirmations, acceptances and guarantees) and officially supported export credits when these products are structured as committed facilities/limits.

These terms are often used interchangeably to reflect practices within banks and, in line with both regulatory intent and banking practice, the CCF for these facilities should be the exposure/product based CCF of 20% and 50%. We also note that such clarification will provide consistency with the SA principle that when there is a commitment to provide an off-balance sheet item, banks are to apply the lower of the two applicable CCFs (in other words when import L/C, export L/C confirmations and guarantees are structured as commitments/limits/facilities then the product based CCF of 20% and 50% will still apply).

12) **Credit risk mitigation**

The current proposals raise a number of significant questions with respect to the functioning of the credit risk mitigation (CRM) framework going forward.

CRM is an important tool in reducing risk on lending and supports funding in developed countries as well as for new industries or new entrants which are not yet sufficiently established to access unsecured finance. We are therefore of the view that CRM should be increasingly incentivised as a sound practice for banks. This implies that there must be a clear and systematic differentiation of protected and unprotected exposures, something that is lacking under the current proposals.

As a general comment, we would encourage the Committee to carefully revisit the manner and extent to which collateral will be recognised under the IRB approach and where LGD levels are prescribed it is essential that they are sufficiently granular, particularly for secured exposures.

**Issues arising as a result of the proposals**

Given that the proposals restrict certain asset classes to the revised standardised approach, it remains unclear how institutions should handle the mix of regulatory approaches they will be faced with. For example, as they stand, the proposals give rise to the following counterintuitive/contradictory outcomes:

- A bank granting a loan granted to a large corporate with an external rating of AA (and therefore treated with a RSA risk weight of 20%), would not be able to recognise any bought protection at all, in spite of its risk mitigative benefits. The same would be true of a corporate exposure that would fall under a 50% RSA RWA.
- Bank guarantees are a common type of CRM, often provided in support of midcap corporates. In such cases, limiting bank counterparties to the RSA will mean that CRM cannot be reflected in a modelled LGD on a corporate exposure under the IRBA.
• Regulatory principles provide that an obligor should not attract a worse risk weight as a result of recognising CRM; however this “eligibility” check is complicated by the mix of approaches. In particular, there is concern that some major regulatory authorities have imposed constraints restricting any recognition of CRM benefit under the IRB where the guarantor is not also IRB.

We note the proposal to only allow the full PD substitution approach to recognise the benefit of guarantees and credit derivatives. We support this treatment for recognition of support from 3rd parties, however our interpretation is that this narrowed provision will not apply directly when considering the effects of guarantees from related counterparties (i.e. intercompany guarantees) where a more nuanced approach is required.

The QIS instructions34 state that “In case the bank applies the standardised approach to direct exposures to the guarantor it must assign the standardised approach risk weight to the covered portion of the exposure”. We consider that this proposal is not appropriate in the new framework, in particular when applied to granular portfolios (retail, residential mortgages or SMEs) covered by a guarantee (which are usually provided by a financial institution or an insurance company).

Moreover § 48235 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.”

As noted above in the example, since a vast majority of eligible guarantees are issued by financial institutions (banks or insurance companies), under the proposals, all exposures subject to these guarantees will be capped by a risk weight determined under the RSA, which by definition is not comparable to a risk weight under the IRB approach. We think that the § 482 was introduced to limit the effect of the double default in the IRB framework. However this § 482 does not make sense in the context of a guarantee provided by a counterparty treated under the Standard Approach, especially for granular portfolios where no unsecured risk parameters can be provided by models.

Consequently, the Basel Committee should confirm that banks can still take in account the effect of guarantees under the advanced approach without the obligation to apply the substitution approach as described in § 482 (i) of the QIS and that the § 482 of Basel II (cap to the RW of the guarantor) should be removed when the protection provider is to be treated under the standardised approach.

More generally, we fear that under the current proposals it will be more difficult to compare the RWAs of secured and unsecured exposures and that the current proposals may lead to some counterintuitive outcomes. This may well disincentive banks to use credit risk mitigation techniques (financial Guarantees, CDS, credit risk insurance…), which are nonetheless sound practices that help banks manage their risks. As an example, the combination in the F-IRB approach (section 4.2.2. of the consultation) of a 50% haircut on physical collateral and a 25% LGD on the secured portion of a financing (after haircut) considerably reduces the value of this collateral and does not sufficiently recognise the risk differential between conservative levels of financing (e.g. a 50% loan-to-value level) and more aggressive ones (such as 100% LTV).

The double default approach

We disagree with the Committee that there is a lack of evidence that the double default approach is being used. An informal survey of our membership shows that this method is used relatively wide-spread in practice36.

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34 See § 482(ii) of the Additional guidance for completing the IRB quantitative impact study May 2016
35 See also § 301 of Basel II International Convergence of Capital Measurement and Capital Standards, June 2006
36 http://www.bis.org/publ/bcbs128.htm
37 8 out of the 12 large international banks who responded to our survey report using this approach
We are therefore in favour of keeping this methodology in the future framework. The double default methodology aims at capturing the lower risk of an underlying exposure hedged by a protection provider, based on the simple assessment that the risk of both a borrower and a guarantor defaulting on the same obligation and at the same time may be substantially lower than the risk of only one of the parties defaulting.

To this extent, the BCBS developed in 2005 sound treatment to capture this lower risk without introducing any new risk parameters or complexity through new internal models, but simply based on a cross-utilisation of the borrower and the protection providers’ risk parameters (PD, LGD).

In our view, the double default treatment addresses a real economic situation where the combined risk of loss for a lender is less than the risk of only one counterparty defaulting (the borrower or the protection provider). Furthermore, the treatment defined by the BCBS does not introduce complexity and should in our view be maintained in order to encourage financial institutions to hedge some of their exposures, even those benefiting from a favourable internal treatment. To this extent, double default is an interesting tool for managing credit and concentration risks under both Pillar 1 and Pillar 2 frameworks.

Furthermore, we would like to emphasize the fact that a double default approach also needs differentiated LGDs between a guarantor and the underlying exposure in order to really reflect the credit risk mitigant of such a guarantee/protection. Indeed, using a single LGD approach through the application of IRB-F will only yield a low recognition of the mitigative effect that will once again time largely disincentive banks to ask for guarantees or put in place other protections.

13) Knock-on effects for securitisation

The proposals will also have a material impact on securitisation exposures under the IRB (SEC-IRB) approach. This will be due to the application of higher risk weights to the individual positions that are used to calculate the capital of the underlying securitization pool (KIRB), a key input to the SEC-IRBA RWA calculation. In addition to this effect, the scope of the SEC-IRB approach will be reduced since the bank must be allowed to calculate KIRB for at least 95% of the underlying risk-weighted exposure amounts. If the exposures to banks or other financial institutions, large corporates and specialised lending exposures which will be subject to the RSA instead under the present proposals, the SEC-IRB approach will no longer be applicable to securitisations with these types of underlying exposures at all. Indeed, this will be true for many non-retail exposure pools (including trade finance for instance). As a consequence, the use of the approach which sits at the top of the hierarchy will become much less frequent, with the less sophisticated external ratings or SEC-SA approaches being used instead. We understand that this would be contradictory to the Committee’s intentions. Lastly, it is also unclear how KIRB will be affected by the introduction of a capital floor.

We wish to recall that previous analysis and industry feedback\(^{37}\) on the BCBS securitisation proposals (finalised in 2014) identified a significant increase in RWAs for securitisations which would likely have a severe negative impact on the development of the market. As the Committee is aware, there have been subsequent proposals to reconsider and mitigate this RWA impact, most notably for Simple, Transparent and Comparable (STC) securitisations. Before its finalisation, the new securitisation framework was subject to calibration iterations based on the KIRB or KSA of the reference pool using current IRB and SA methodologies and calibration levels. The present proposals and the RSA imply that the securitisation framework will need to be re-calibrated to prevent a further increase in risk weights for these exposures.

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\(^{37}\) See for instance the GFMA and other associations’ letter to the BCBS dated 12 August 2014 and providing further data and analysis on the securitisation framework
Finally, should corporate exposures for instance be treated under several different regulatory approaches (IRBA, IRBF, Standardised depending on whether they belong to a group or not) it will become extremely challenging for originating banks to explain the historical performance of the securitised portfolios (loss rates, exposures...) to investors and rating agencies as they will follow different origination, pricing and monitoring procedures once their regulatory treatments diverge. We think this increase in opacity and complexity contradicts the BCBS objectives of simplicity & comparability, and will result in a further increase in the cost of securitisations (and thus ultimately increased borrowing costs for end users).
Appendix 1 - Additional issues relating to SA-CCR

The industry has identified several areas where SA-CCR appears to suffer from unavoidable deficiencies resulting from its standardized nature. IMM remains better able to capture risks, properly account for diversification and hedging and permits swifter adaptation when the environment changes. We highlight below a number of additional issues relating to SA-CCR and its application as a floor to IMM, and make suggestions aimed at improving SA-CCR’s risk sensitivity:

- The existing formulation in SA-CCR will allow some reduction of PFE resulting from the posting of IM, however the level of reduction will not be in line with the level of risk mitigation provided by the IM. In the formulation, the PFE will not fall accordingly as it is dependent on the exponential multiplier which is significantly more conservative than the model-based multiplier (BCBS WP26). We understand the choice of the exponential multiplier is based on MTM value of real netting sets being likely to exhibit heavier tail behavior than the one of the normal distribution. While fatter tails than those implied by a normal distribution do exist, the conservative calibration of the AddOnAggregate calculation already compensates this. This means that the introduction of the exponential multiplier constitutes a double count of fat tails. This is even more problematic as the 5% floor and the application of collateral haircuts to the collateral values (please see comments below) introduce additional factors in reducing the risk mitigating benefits of overcollateralization. This undermines the stated regulatory efforts to increase the level of collateralization of exposures as a means to decrease counterparty credit risk. This has become even more important for the industry given the margin requirements for uncleared derivatives and the associated considerable funding costs. The same calibration issue also applies when derivative transactions are not in a netting set, where the non-netting set transactions will receive relatively high add-ons but the multiplier will provide little relief. As such, even transactions with significantly negative MTM will have large add-ons even when there is little chance of them to go in-the-money. The industry therefore thinks that the PFE multiplier is overly conservatively calibrated and results in a punitive treatment of IM, leaving in all instances the multiplier meaningfully higher than it should be. We therefore believe that SA-CCR should be made more sensitive to overcollateralization and negative MTM and would welcome the initiation of discussions with the BCBS towards this goal.

- Under SA-CCR, the collateral haircut approach is used to reflect the volatility of collateral where market price volatility and foreign exchange haircuts are applied to incoming and outgoing collateral as appropriate. Generally, such a simplistic approach seems problematic as on the one hand it models the volatility of collateral in isolation of other collateral or the overall trade population and does not recognize any diversification benefits while on the other hand it fails to reflect the uniqueness of certain types of collateral. Given the goal to align SA-CCR with IMM as much as possible, it seems prudent to incorporate the impact of the future volatility of collateral into the SA-CCR PFE calculation. A more comprehensive discussion of the approach is provided below. While we understand that SA-CCR is final, such an amendment should not be considered a change to SA-CCR as the reflection of collateral volatility is not part of the methodology on how to calculate exposures for derivatives and the suggested approach in fact aligns with the SA-CCR methodology.

- Industry participants would strongly prefer to be given the option of using their own internal model delta adjustments since these calculations are approved by national regulators as part of the market risk framework and better aligned with their internal risk management engines and reporting systems. We understand that reluctance to move ahead with such an approach has led the BCBS into an intermediate solution of introducing a Black-Scholes delta with supervisory volatility in SA-CCR. Although the formula in the final standard is better aligned with options theory, it has the drawback that it is operationally complex to implement at the trade level for certain products such as caps and floors. Deriving the P in the formula for a cap typically requires that a bank determines a new at-the-money cap level for each trade individually and determines forward levels for each leg in the cap in a very deal-specific way.
In relation to the add-on rules for foreign exchange derivatives covered in paragraphs 170-171 of the SA-CCR framework, it is not clear whether netting is allowed for triangular FX trades in which the exposures are flat. In appendix B we provide an illustrative example of the following triangular FX exposure situation where this issue arises: EUR/USD-USD/GBP-GBP/EUR. The industry suggests that the BCBS allows for netting of cash flows in each currency to a single amount and then use the net buy amount converted to the domestic currency as the effective notional.

Add-on formula for foreign exchange derivatives:

In relation to the add-on rules for foreign exchange derivatives covered in paragraphs 170-171, it is not clear if netting is allowed for triangular FX trades in which the exposure are flat. For example a bank enters into three FX forwards with the same counterparty all with the same maturity:

<table>
<thead>
<tr>
<th></th>
<th>BUY</th>
<th>SELL</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRADE 1</td>
<td>EUR 7</td>
<td>USD 10</td>
</tr>
<tr>
<td>TRADE 2</td>
<td>USD 10</td>
<td>GBP 5</td>
</tr>
<tr>
<td>TRADE 3</td>
<td>GBP 5</td>
<td>EUR 7</td>
</tr>
<tr>
<td>Net</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

The cash flows at maturity net down to 0, so there is no risk. However, if netting is not allowed the capital will be held against the portfolio. The same is also true where the cash flows do not net down to zero, the trades can still be collapsed to net cash flows in each currency:

<table>
<thead>
<tr>
<th></th>
<th>BUY</th>
<th>SELL</th>
</tr>
</thead>
<tbody>
<tr>
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<td>EUR 8</td>
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</tr>
<tr>
<td>Net</td>
<td>EUR 1</td>
<td>GBP 1</td>
</tr>
</tbody>
</table>

The industry suggests to allow netting of cash flows in each currency to a single amount and then use the net buy amount converted to the domestic currency as the effective notional. For the above case the three trades would net to a single trade in the EUR/GBP hedging set with an effective notional of EUR 1 converted to the domestic currency.

Incorporation of collateral modelling into SA-CCR:

Instead of using the collateral haircut approach, the impact of future collateral volatility can be integrated into the SA-CCR PFE calculation by including collateral into the various asset classes based on the underlying risk factor(s) that drive(s) the value. For example, collateral in the form of a corporate bond can be modeled as a total return swap on that corporate bond. Equally, equity collateral can be included as an equity derivative and gold as a commodity derivative. Any foreign exchange mismatches can be reflected in the add-on for foreign exchange derivatives.

By reflecting the future volatility of collateral in the add-on calculation, no haircut needs to be taken into account for the calculation of NICA in the context of determining RC and the PFE multiplier. This ensures a consistent treatment between derivatives collateral by including both with their unadjusted actual market value in the calculation. Generally, it should not be expected that there is more uncertainty associated with the market value of collateral compared to the market value of a derivative that would justify a different approach. In fact, given the requirements of financial collateral and the generally much simpler pay-off structures, the collateral market value should be considered more rather than less stable compared to the derivative market value. Therefore, the risk mitigating benefits of collateral and a negative market value of a derivative should be treated consistently with respect to NICA and the impact on PFE and RC. Under SA-CCR, such a treatment can be viewed as the closest equivalent to joint modelling of collateral and

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38 http://www.bis.org/publ/bcbs279.pdf
derivative exposures under the internal models methodology (IMM). This means that this alternative approach can ensure a closer alignment with IMM in modelling future collateral changes. Conceptually, this represents the accurate way of taking into account uncertainty around the future value of the collateral as RC should be purely a reflection of the current value while only the PFE component should consider market shocks that affect the value of collateral and the derivative population. In addition, the multiplier models already the impact of future MtM changes of the netting set on the degree of overcollateralization and therefore, a haircut on the collateral would represent a double count. Below we show sample calculations comparing collateral haircut and the alternative.

The netting set consists of a single name equity derivative. The netting set is daily margined with no threshold, MTA amounts. The IA collected from the counterparty is 10% of equity notional and is posted by the counterparty in the form of a main index equity security.

<table>
<thead>
<tr>
<th>Trade #</th>
<th>Nature</th>
<th>Underlying</th>
<th>Direction</th>
<th>Notional</th>
<th>Market Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Equity swap</td>
<td>SN Equity</td>
<td>Long</td>
<td>100,000,000</td>
<td>0</td>
</tr>
</tbody>
</table>

EAD = alpha \times (RC + \text{multiplier} \times \text{AddOn}_{\text{aggregate}})

Collateral haircut approach:

RC = \max(V - C; \text{TH} + \text{MTA} - \text{NICA}; 0) = \max(0 - (10,000,000 \times (1 - 0.15)); 0 + 0 - (10,000,000 - (1 - 0.15))) = 0

The collateral received is reduced by the haircut of 15% for main index equity positions based on a margin period of risk of 10 days.

The AddOn_{\text{aggregate}} calculation is as follows:

\[
\text{EffectiveNotional}_{k}^{(\text{Equity})} = \sum_{i \in \text{Entity}_k} \delta_i \times d_i^{(\text{Equity})} \times M_i^{(\text{type})}
\]

\[
\text{EffectiveNotional}_{k}^{(\text{Equity})} = 100,000,000 \times 1 \times 1.5 \times \frac{10}{250} = 30,000,000
\]

\[
\text{AddOn(Entity}_k) = SL_k^{(\text{Equity})} \times \text{EffectiveNotional}_{k}^{(\text{Equity})} = 9,600,000
\]

\[
\text{AddOn(Equity)} = \left[\left(\sum_{k} \rho_k^{(\text{Equity})} \times \text{AddOn(Equity)}_k\right)^2 + \sum_{k} \left(1 - \left(\rho_k^{(\text{Equity})}\right)^2\right) \times \left(\text{AddOn(Entity}_k)\right)^2\right]^{1/2}
\]

\[
= 9,600,000
\]

Given the fact that there is only one equity trade in the portfolio:

AddOn_{\text{aggregate}} = \text{AddOn(Equity)} = 9,600,000

\[
\text{multiplier} = \min\left\{1; \text{Floor} + (1 - \text{Floor}) \times \exp\left(\frac{V - C}{2 \times (1 - \text{Floor}) \times \text{AddOn}_{\text{aggregate}}^{\text{aggregate}}}\right)\right\}
\]

\[
= \min\left\{1; 0.05 + (1 - 0.05) \times \exp\left(\frac{(0 - (10,000,000 \times (1 - 0.15)))}{2 \times (1 - 0.05) \times 9,600,000}\right)\right\}
\]

\[
= 0.65
\]
EAD = \alpha \times (\text{RC} + \text{multiplier} \times \text{AddOn}^{\text{aggregate}}) = 1.4 \times (0+0.65\times9,600,000) = 8,683,943

**Alternative approach**

\[
\text{RC} = \max(V - C; \text{TH} + \text{MTA} - \text{NICA}; 0) = \max(0 - 10\text{MM}; 0 + 0 - 10) = 0
\]

In contrast to the collateral haircut approach, no haircut is applied to the collateral in the RC formula under the alternative approach.

The basic formula for calculating the effective notional is:

\[
\text{EffectiveNotional}^{(\text{Equity})}_k = \sum_{i \in \text{Entity}_k} \delta_i \times d_i^{(\text{Equity})} \times ME_i^{(\text{type})}
\]

The equity derivative has the following effective notional and individual AddOn:

\[
\begin{align*}
\text{EffectiveNotional}^{(\text{Equity})}_k &= 100,000,000 \times 1 \times \frac{10}{\sqrt{250}} = 30,000,000 \\
\text{AddOn(Entity)}_k &= SF_k^{(\text{Equity})} \times \text{EffectiveNotional}^{(\text{Equity})}_k = 9,600,000
\end{align*}
\]

The equity collateral has the following effective notional and individual AddOn:

\[
\begin{align*}
\text{EffectiveNotional}^{(\text{Equity})}_k &= 10,000,000 \times 1 \times \frac{10}{\sqrt{250}} = 3,000,000 \\
\text{AddOn(Entity)}_k &= SF_k^{(\text{Equity})} \times \text{EffectiveNotional}^{(\text{Equity})}_k = 960,000
\end{align*}
\]

\[
\text{AddOn}^{(\text{Equity})} = \left[ \left( \sum_k \rho_k^{(\text{Equity})} \times \text{AddOn(Equity)}_k \right)^2 + \sum_k \left( 1 - \left( \rho_k^{(\text{Equity})} \right)^2 \right) \times (\text{AddOn(Entity)}_k)^2 \right]^{\frac{1}{2}} = 9,883,805
\]

Given that there is an additional long equity position in the form of collateral in the portfolio the AddOn increases compared to the collateral haircut approach. The collateral has the same directionality as the long equity derivative position.

Given the fact that there are only equity positions in the netting set:

\[
\text{AddOn}^{\text{Aggregate}} = \text{AddOn}^{\text{Equity}} = 9,883,805
\]

As the volatility of the collateral is modeled as part of the AddOn, no haircut is applied.

\[
\text{multiplier} = \min \left\{ 1; \text{Floor} + (1 - \text{Floor}) \times \exp \left( \frac{V - C}{2 \times (1 - \text{Floor}) \times \text{AddOn}^{\text{aggregate}}} \right) \right\} = \min \left\{ 1; 0.05 + (1 - 0.05) \times \exp \left( \frac{0 - 10,000,000}{2 \times (1 - 0.05) \times 9,883,805} \right) \right\} = 0.61
\]

\[
\text{EAD} = \alpha \times (\text{RC} + \text{multiplier} \times \text{AddOn}^{\text{aggregate}}) = 1.4 \times (0+0.61\times9,883,805) = 8,410,005
\]
Appendix 2: Credit conversion factors

1) Examples of UCCs

- UCC arrangements are commonly put in place with corporates and SMEs and are closely and continuously monitored with banks being able to unilaterally cancel or limit additional drawdowns for instance when they identify any sign of deterioration in the creditworthiness of borrower

- Undrawn commitments to finance receivables where customer facility documentation allows the reduction or cancellation of further draw-downs or requires repayment of existing draw-downs

- Credit facilities granted to high net worth individuals are typically secured by eligible collateral and can comprise portfolio finance facilities. These can include real estate mortgage loan facilities, life insurance premium financing facilities and standby letter of credit facilities. The terms and conditions of these credit facilities typically allow a firm to unconditionally cancel and withdraw any facility or undrawn portion of a facility at any time. The firm reserves the right to decline any requested drawdown and may at any time and without prior notice terminate facilities at its discretion. Lending provided to such clients does not fall under the BCBS retail definition as the volumes are typically above EUR 1 million or transacted through an SPV or trust;

- Retail credit card commitments where consumer protection laws and regulations that govern the lender’s ability to restrict a customer’s right to draw on the unused portion of a credit card line require only that the lender provide after-the-fact notice that customer’s line has been cancelled or reduced;

- Trade and commodity product customer limits that apply to trade and commodity finance instruments such as letters of credits and guarantees advised to customers but that have not yet been utilized. For example, if a letter of credit (L/C) facility is uncommitted, this means the bank has no obligation to issue any L/C the customer asks it to issue. The bank can refuse to issue for any reason and without any obligation to give reasons. Any "limits" stated in the documentation for this type of facility are not amounts up to which the bank has committed to provide the facilities but an indication of the bank’s maximum potential appetite for providing that type of facility to that customer. They do not bind the bank in any way.

2) Features of commitments and contingent facilities

Analysis of the following industry data illustrating the features of commitments and contingent facilities has helped us inform our views expressed above in the section relating the proposed treatment for CCFs (see section 11 above).

- GCD data shows need to differentiate between facility type for corporate clients:

<table>
<thead>
<tr>
<th>Facility type</th>
<th># of facilities</th>
<th>CCF3, arithmetic mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revolving</td>
<td>6015</td>
<td>54%</td>
</tr>
<tr>
<td>Term loan</td>
<td>4298</td>
<td>42%</td>
</tr>
<tr>
<td>Other (includes contingent facilities &amp; products where classification not reported)</td>
<td>3226</td>
<td>30%</td>
</tr>
<tr>
<td>All</td>
<td><strong>13539</strong></td>
<td><strong>45%</strong></td>
</tr>
</tbody>
</table>
• Bimodal nature of CCF distributions

CCF distributions, for all commitments (other than UCCs) i.e. including both cash commitments and contingent facilities are bimodal. For contingent facilities, they will generally either be equal to 0% (the guarantee is not called), or equal to 100% (when the guarantee is called). For cash commitments, they will either be 0% (not utilized) or vary between 0% and 100%. Calibration of CCFs therefore needs to be granular and product based to recognize that there are many “zero case” draw-downs. The BCBS should carefully reflect the bimodal distribution of CCF levels, recognising that in a significant portion of all cases, they are equal to 0%. GCD data in the chart below shows the bimodal nature of CCFs (for all types of corporate commitments and underlying facilities taken together):

![Bimodal nature of CCF distributions](image)

Source: GCD, CCF3 Distribution

• Draw down rates

Revolver draw down rates accelerate as default approaches but are lower than 75% throughout the time-to-default horizon:

![Draw down rates](image)

Source: Special Comment, Migration of Debt Structures and Revolver Usage as Firms Approach Default, Moody’s Global Credit Policy, December 2008

We understand that the Committee assumes that the level of drawing of certain recurring loan facilities is highest immediately before a default. This is not the industry’s experience when it comes to larger corporates, and trade and receivables financing in particular. For the latter, the level of drawdown is particularly influenced by business volumes that enable a company to obtain more funding for increased sales and trade volumes. These often reduce before a company would go into default and therefore the
assertion of a high level of drawdown before default is not evidenced in our data history. In other words, drawdowns depend on the client’s business cycle rather than on its credit quality. A good example of this is cash pooling arrangements with large corporates or insurance firms to provide liquidity in times of peak demand. Contingent facilities include guarantees and letters of credit and are prevalent in the corporate space, particularly in trade and commodity finance. These types of off-balance sheet exposures exhibit much lower credit risks, including risks of drawing, compared for instance with cash commitments such as revolving credit facilities or term loans, and should therefore attract significantly lower CCFs. Moreover, documentary letters of credit and guarantees are issued in relation to specific contracts or commitments and cannot be used to generate liquidity ahead of a potential default. As such, increased utilization prior to default should not be expected. Other types of guarantees include performance guarantees for building projects or those where conversion is unrelated to the credit quality of the client (e.g. guarantees if a client loses in litigation).

- Revolver commitment shares fall as default approaches:

![Graph showing decrease in revolver commitments as default approaches](image)

*Source: Special Comment, Migration of Debt Structures and Revolver Usage as Firms Approach Default, Moody's Global Credit Policy, December 2008*
Appendix 3: Comments on CCF modelling constraints

i) Appropriate reference data

We agree that CCF modelling should be based on reference data reflecting customer, product and bank management practice characteristics. We have for instance previously pointed out in our response to the RSA that industry data shows CCFs depend on the following drivers:

- The type of commitment, e.g. cash commitments vs contingent facilities (transaction related contingencies);
- Whether the facility is unconditionally cancellable or not – contractual and legal environments make an economic difference which must be recognised
- The type of counterparty to which the facility is granted, bearing in mind that CCFs are applicable to products aimed at all types of customer bases. Corporate and retail customers may behave differently.
- The residual maturity of the underlying facility

As firms should take into account the above drivers in their own internal models, regulators should also clearly consider segmenting and calibrating regulatory CCF levels on the same drivers.

ii) Non-capping of reference data to principal amount outstanding/limit

We would welcome clarification on how facility increases during the 12-month period between snapshot and observation date should be treated in this respect. Our suggestion is to treat them like new volumes and exclude the respective exposure increases from CCF estimation.

iii) Downturn requirements

We recommend that the downturn requirement for CCFs be aligned with what regulators (e.g. EBA) are proposing for downturn LGD calibration.

iv) 12-month fixed estimation horizon

We disagree with the imposition of a 12 month fixed horizon for all CCF estimates.

We wish to recall for instance, that in a European context, the twelve-month horizon approach was introduced by the EBA (former CEBS) in their 2006 Guidelines relating to the estimation of conversion factors. However, the guidelines specify that another approach can be used if the institution can demonstrate that it would be more conservative and appropriate.

Moreover, the guidelines specify that the fixed horizon approach 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 a maturity of less than one year cannot be dealt with through this approach.

The variability of CCFs is closely linked to the structure of the corresponding off-balance sheets product. A one-size-fits-it-all approach cannot work appropriately for products with very different features: for instance, short-term letters of credit such as encountered in the trade finance sectors have very different drawing and maturity profiles from revolving facilities. The imposition of an across-the-board twelve-month horizon approach will thus not lead to appropriate harmonisation of CCFs.

We propose that the BCBS maintain a broader approach, along the lines of the CEBS Guidelines specifications, in order to ensure that CCF estimates are consistent with their economic effects.

39 The relevant extract from the CEBS Guidelines is provide in Appendix 4.
v) Other issues to consider

Any general modelling constraints should not be extended to maturity. Maturity is not self-estimated and thus does not contribute to the RWA variance. In particular we think it is important to recall that, in January 2011, the Basel Committee recognised that the one-year maturity floor under the IRBA is inappropriate for short-term self-liquidating trade finance instruments given their average tenor of well below one year\textsuperscript{40}. The Committee also removed the national discretion on the application of the waiver. This treatment should be maintained going forward.

\textsuperscript{40} http://www.bis.org/publ/bcbs205.pdf
Appendix 4: Extract from CEBS 2006 Guidelines relating to the estimation of conversion factors:

“303. Institutions should ensure that the points in time chosen for the calculation of realised CF in the RDS are appropriate for a one year horizon for estimating CFs. 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 realised CF 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 generalisation 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.”