FÉDÉRATION BANCAIRE FRANÇAISE

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FRENCH BANKING FEDERATION RESPONSE TO BASEL COMMITTEE CONSULTATIVE DOCUMENT ON THE REVISION TO THE MINIMUM CAPITAL REQUIREMENTS FOR MARKET RISK (d436)

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

The FBF welcomes the opportunity to share its comments on the Basel Committee's consultative document with regard to the revision to the minimum capital requirements for market risk (d436).

The FBF reiterates its support for a stable and resilient global financial system, while facilitating economic growth. To this end, while supporting the Basel Committee's initiative on the revision of the international framework for minimum capital requirements for market risk, we believe that the proposed consultative document (d436) raises some concerns and requires some clarification as regards the international context. In our view, it is essential that regulators and the industry continue to develop the better framework for market risk capital requirements.

Summary of key comments:

- Standardised approach:
  - The French Banking Federation (FBF) welcomes the Committee's proposals on the Standardised Approach for market risk capital requirements (FRTB SA) adding consistency to the framework, making the capital charge more commensurate and a more credible fallback to the IMA.
  - Nevertheless, additional concerns should be covered by the revised framework:
    - The proposed treatment of the correlation trading portfolio (CTP) is not reflective of the risk management of these positions and result in a hugely overstated own funds requirement;
    - The double-counting for the FX curvature;
    - The capital requirements for linear instruments with a non-linear behaviour in the Curvature risk charge;
    - The RRAO of volatility swaps and spread options.

    We stress the Committee to revise these elements in its final international standard.

- As regards the risk weights applied to GIRR, equity and FX asset classes and the alignment in risk weights between FRTB SA and SA-CVA, we feel that FRTB and CVA risks should be monitored before any transposition in capital requirement.

- Internal model approach - NMRF:
  - Concerning the Internal Model Approach (FRTB IMA), the concept of NMRF remains unclear. The global framework render ineligible for modellability too many risk factors and should recognize more diversification effects. As it stands the NMRF charge, estimated to be over 40% of the total IMA charge and significantly higher than the model charge (IMCC), is jeopardizing the incentive for banks to develop and maintain an internal model.
- Internal model approach – PLA test metric:
  - We welcome the traffic light approach applying to the PLA test metric, but we ask for a more progressive capital charge in the "amber zone".
  - The calibration of the traffic light thresholds should be made on real data (HPL/RTPL) over a sufficiently long period of time. We therefore urge the Basel Committee to planify a review of the threshold based on collected real data before the entry into force of the FRTB.
  - The potential desks disallowance for the internal model approach should never lead a credit institution having a higher capital charge under the IMA approach than with the SA approach.
- There are concerns with respect to the trading book/banking book boundary, in particular with regard to non-look through funds and associated products, which are standard market-making instruments for a wide range of investors.

Please find below our detailed feedback.

SUMMARY

I- Standardised approach

a. Scope of the consultation (treatment of liquid FX pairs, correlation scenarios, capital requirements for non-linear instruments and revisions to risk weights)

The FBF welcomes the Basel committee proposal covering many key issues actively discussed between the industry and the members of the Basel Committee during the last few months:

- The reduction of the supervisory risk weights of the GIRR, Equity and Foreign Exchange risk classes
- The redefinition of the low correlation scenario
- A curvature risk capital charge based on consistent scenarios
- The definition of FX liquid pairs recognising triangulation

b. FX curvature charge

The FBF welcomes and supports the optional treatment proposed in Box1 of the consultative paper, as it is a step in the right direction to tackle the double count issue.

Indeed, French banks (like many other European banks) develop solutions for clients in many geographical areas and do not only trade USD/ccy instruments, but also EUR/ccy and other cross instruments (i.e. not involving EUR) in such proportions that choosing USD as alternative reporting currency, as advocated by some, would definitely not solve the double count issue. Besides, if banks were to calculate their FX curvature charge in the current framework as if they were a USD reporting currency, it would put EU corporates at a disadvantage compared to US corporates as the capital charge of EUR/ccy hedges would be more costly in own funds requirements than USD/ccy hedges.

Finally, there might be circumstances where Box1 treatment creates broken hedges within specific buckets, some instruments being accounted for half their curvature and some accounted for full.

In order to avoid any unintended outcome, one solution could be to slightly enhance the proposal towards a more robust treatment (Box1++). The idea of this enhancement is to:

- Introduce additional stress tests on the bank's own reporting currency (up and down, vs. the rest of the world, since indeed a bank FX instruments P&L also results from movements of the own reporting currency to the rest of the world);
- Aggregate the new Kb and Sb as usual, together with other currencies, and divide the resulting charge by the scalar X.

This solution is simpler (i.e. no need to split the stress results by underlying pairs) and more robust (i.e. avoids broken hedges within buckets). It has also the great merit of setting a level playing field since the outcome is by construction agnostic to the reporting currency. Considering that each and every curvature exposures are counted twice in the Box1++ approach it would make sense to consider a value of X equal to 2.

This Box1++ technique could be the Standards sole FX curvature approach as it exhibits all the desired properties (a FX curvature charge proportionate to the level of the non-linear risk of the portfolio, a level playing field in FX instruments trading: the same risk being capitalized the same amount

whichever the reporting currency). As a fallback, if the Basel Committee does not enforce Box1++ as the Standards rule for FX curvature charge, we are supportive of having Box1++ as the optional treatment (instead of Box1).

Worked examples

We compare on three sample portfolios the behaviour of the different approaches to cope with this "double count" issue. The BCBS baseline incorporates all other developments of FX curvature formula contained in the consultative paper, such as the zero floor and triangulation for liquid currency pairs. Below figures correspond to 36% inter-bucket correlation (mid scenario) and X scalar equal to 2 for Box1 and enhanced Box1++.

Portfolio A: Directional portfolio in USD

This is a portfolio with short gamma exposures only → short USD/ccy1, short USD/ccy2,…, short USD/ccyN

	USD	**EUR**	**ccy1**	**…**	**ccyN**
« Gamma »	-N	0	-1	-1	-1

The most significant non-linear risk is obviously the USD appreciating or depreciating (against the rest of the world). Unfortunately, the BCBS formula calculated with USD reporting currency fails to capture this genuine risk. **Box1++ is the only approach that treats this standalone exposure in a dedicated bucket, increasing the risk-sensitivity of the overall framework**

	BCBS		Box1		Box1++
	reporting USD	reporting EUR	reporting USD	reporting EUR	level playing field
N=1	1.00	1.65	1.00	0.82	0.82
N=5	3.49	7.43	3.49	3.71	3.71
N=10	6.51	14.64	6.51	7.32	7.32

Portfolio B: Same directional portfolio, but diversified between USD and EUR

Same portfolio as before, but half exposure against USD and half against EUR → short USD/ccy1, short EUR/ccy1,…, short USD/ccyN, short EUR/ccyN

	USD	**EUR**	**ccy1**	**…**	**ccyN**
« Gamma »	-N/2	-N/2	-1	-1	-1

This portfolio has many cross trades, regardless of the reporting currency, and is therefore heavily penalized by current BCBS formula. Results come as follows:

	BCBS		Box1		Box1++
	reporting USD	reporting EUR	reporting USD	reporting EUR	level playing field
N=1	1.27	1.27	0.87	0.87	0.77
N=5	5.24	5.24	3.44	3.44	3.44
N=10	10.17	10.17	6.60	6.60	6.75

This example confirms if need be that **giving banks the flexibility to compute the curvature charge as if they were USD reporting bank is not foolproof**. It also shows that BCBS in USD fails to recognize diversification since capital charge for portfolio B is higher than for portfolio A. To the contrary **Box1++ is the only approach that consistently gives lower capital charge for the diversified portfolio.**

Portfolio C: Same directional portfolio + macro hedge

Same non-linear exposures as in portfolio A. but with a macro hedge in EUR/USD that almost neutralizes the gamma exposure on USD → short USD/ccy1, …, short USD/ccyN + long EUR/USD

	USD	**EUR**	**ccy1**	**…**	**ccyN**
« Gamma »	-N/5	+4N/5	-1	-1	-1

For this portfolio, a bank would expect the very long gamma position on EUR/USD to offset the many short gamma exposures on foreign currencies, regardless on the reporting currency (EUR or USD). BCBS formula works this way for USD reporting banks as soon as N is large enough, but does not work for EUR reporting banks where the capital charge gets increasing with N.

	BCBS		Box1		Box1++
	reporting USD	reporting EUR	reporting USD	reporting EUR	level playing field
N=1	0.65	1.09	0.38	0.65	0.35
N=5	0.00	4.10	0.00	0.59	0.00
N=10	0.00	7.80	0.00	0.00	0.00

Box1 solves the issue for EUR reporting bank, but not as efficiently as expected due to the broken hedges induced on the USD gamma exposure.

Box1++ does not create broken hedge and fully benefits from positive gamma exposures. It is also more simple to compute.

c. Other items not directly covered by the consultation

i. Revisions to capital requirements for linear instruments

Some instruments exhibit a non-linear behaviour even though they are not optional. Some desks may actively hedge the convexity of their options with such non-optional instruments. This is typically the case of the swaptions desk which actively manage its portfolio convexity with swaps.

For an appropriate risk representation, granting some capital relief for desks which are mitigating their convexity risk with linear instruments[1], we recommend that banks have the option for such desks to include linear instruments in the curvature risk charge calculation. This may also ease the operational processes since current stress-test are currently launched on the full trading desks' position.

ii. RRAO (volatility swaps)

It is unclear whether volatility and variance swaps should or should not have a Vega and Curvature risk charge. On one hand "*instruments without optionality are not subject to Vega risk and Curvature Risk*" [BCBS d352, §49(a)], on the other hand "*instruments with non-zero vega sensitivities are subject to vega and curvature risk*" [BCBS d395, §1.2 Q2]. It is our view that since volatility and variance swaps have sensitivities to implied volatilities and are risk managed accordingly they should attract a Vega and Curvature risk charges.

However volatility and variance swaps seem to also attract a residual risk add-on of 1% for exotic underlying. Indeed Footnote 14 of BCBS d352 lists "*realised volatility*" as an example of exotic underlying. We consider that this exotic underlying risk add-on is unwarranted since the sensitivity to volatility is already captured in the Vega and Curvature risk charges.

We therefore recommend that volatility and variance swaps are excluded from the scope of the exotic underlying RRAO.

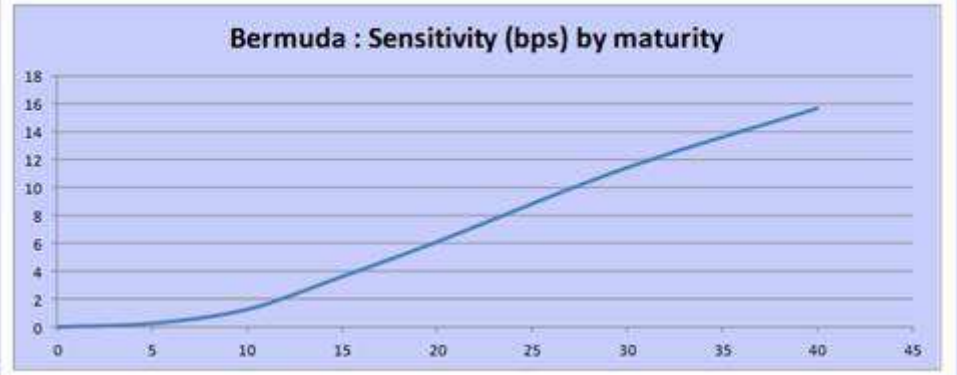
[1] Instruments with zero Vega sensitivities

iii. RRAO (spread options)

In our answer to the EBA note of December 2017 for the implementation of FRTB we have highlighted the fact that the definition of notional or the applied weight of the RRAO computation should be adapted in order to get a measure as risk sensitive as possible for some common so called "*exotic*" products. To achieve this we have suggested:

- That he notional be capped by the maximum loss if this last quantity is bounded;
- That appropriated weights be defined for leveraged products;
- That the weights increase with the time to maturity, explained by materiality considerations. This last point is illustrated here under on the correlation risk of Bermudan options, where sensitivities in basis points by maturity are given for a 1% shock on the Bermuda market correlation, and where it is shown also how the RRAO should increase as a time to maturity function up to the 10 years threshold:

Maturity	0	5	10	15	20	30	40
Sensitivity in bps	0	0.25	1.246602	3.607526	6.09928	11.41182	15.65097



Those considerations apply to spread options which are leveraged products in the sense that their payoff is related on a second order variations, more precisely on slope variations.

Following this we suggest that:

- The leverage should not be the base of the notional computation, only the par face value of the option should be taken into account;
- The RRAO notional multiplicator should linearly increases from 0,0% to a 0,1% cap as expiries increases from 0Y to 10Y.

iv. Securitisation and correlation trading portfolio (CTP)

The current rules for CTP do not meet the objective of risk sensitivity. They will produce uneconomic overall capital which may ultimately incentivise banks to break economic hedges in order to reduce capital which should not be an aim of a regulatory capital framework. Moreover, their lack of clarity will result in limited own funds requirements comparability between banks.

A dedicated section (IV-. Securitisation) addresses the topic of CTP in detail as well securitisations other than CTP."

II- Internal model approach

a. P&L attribution test (PLAT)

i. PLA test input data

We welcome the clarification of the hypothetical P&L (HPL) and risk-theoretical P&L (RTPL) definitions as well as the flexibility granted to institutions to align input data between HPL and RTPL for the purpose of the P&L attribution test.

ii. PLA test metric design

We support the PLA test proposal as a way to address model performance features: the frequency at which the test is to be conducted, the length of the time series and the design of the test metrics themselves.

Regarding the alternative between the "*Kolmogorov-Smirnov (KS) test metric*" and the "*Chi-squared test metric*":

The French Banking Federation welcomes the revision proposal regarding test metrics. However, in the absence of a long term monitoring exercises using real data, we have no clear and definitive appreciation on the respective merits of the two proposals.

The Basel Committee should set a revue clause in the final Basel framework for market risk. This revue should be based on real data with sufficiently long history to decide on the alternative between the "*Kolmogorov-Smirnov (KS) test metric*" and the "*Chi-squared test metric*" as well as calibrate the thresholds.

iii. PLA test failure consequences

We support the "traffic light" approach applying to trading desks that failed the PLA test. Nevertheless, we would like to stress to the Committee that the smoothness of the new approach could be further improved. Indeed, although we note the Committee continue to monitor the calibration of the thresholds to ensure their appropriateness, we regret that a trading desk that fell in the "red zone" cannot move back into the "amber zone" but instead has to meet all the requirements to comply with the "green zone". It would make sense to reflect model improvements made by a firm sooner, as soon as PLA metrics fall back to the "amber zone".

Therefore, we ask for a symmetrical traffic light approach that permits trading desks to switch from the "red" to the "amber" to the "green", similar to how desks in the "green zone" switch from "green" to "amber" to "red".

The lack of progressivity also results from an "amber zone" capital surcharge equal to half the difference between the IMA and SA capital irrespective to the severity of the PLA failing. Moving to the "red zone" will exclude the desk from IMA and have dearer effects, with an overall firm wide capital that may be in excess to what it would be if the whole trading book was capitalised in the standardised approach. We consider that a bank should not be penalised for having an internal model compared to

a bank that is on the standardised approach, hence its capital charge should not exceed, i.e. be capped, the capital fully calculated in the standardised approach.

➔ Industry Proposal for a more progressive traffic light approach:

Our proposal rest upon the following principles:

(i) Test failure should only lead to a higher capital charge;
(ii) Under no circumstances should the resulting capital charge exceed what it would be if all desks were in SA (except if IMA is above SA for the full portfolio);
(iii) Diversification benefits should be preserved;
(iv) Cliff effect should be limited.

A well designed traffic light approach may meet all the above principles, reducing cliff effect. To do so the test outcome is compared to thresholds:

- Below a threshold λ_{amber}, in the "green zone", the desk is eligible to IMA, and there is no capital increase;
- Above λ_{amber} and below λ_{red}, in the "amber zone", a capital add-on applies progressively;
- Above λ_{red}, in the "red zone", the add-on is at its maximum.

And the capital charge is a linear ramp-up between the capital charge all desks in IMA and the capital charge all desks in SA:

$$MR\ Capital = \text{Max}\left\{\begin{matrix} IMA_{IMA\ Desks} + SA_{SA\ only\ desks} \\ (1-k)\cdot\left(IMA_{IMA\ Desks} + SA_{SA\ only\ desks}\right) + k\cdot SA_{All\ desks}\end{matrix}\right\}$$

In the very unlikely event where the $IMA_{IMA\ desks}$ is greater than $SA_{IMA\ desks}$, to $SA_{All\ desks}$ is added the difference between $IMA_{IMA\ desks}$ and $SA_{IMA\ desks}$ to satisfy principle(i).

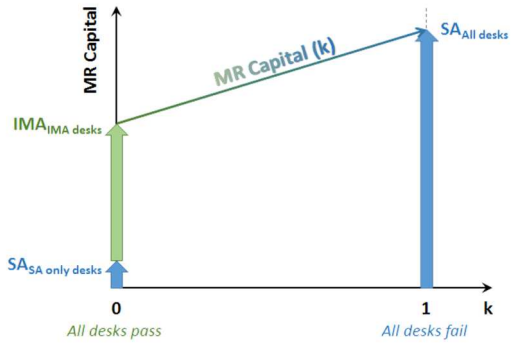
The factor 'k' is the regression parameter between the IMA charge of all desks and the SA charge of all desks. It captures both the number of desks failing the PLA test and for each of those the severity of the failure.

$$k = \frac{\sum_{IMA\ desks} U(\tau_i)\cdot SA_i}{\sum_{IMA\ desks} SA_i}$$

Where SA_i is the standalone SA capital charge of desk 'i' while $U(\tau_i)$ measures by how much the test fails and is defines as follow:

$$U(\tau) = \text{Max}\left\{0;\ \text{Min}\left\{1;\ \frac{\tau - \lambda_{amber}}{\lambda_{red} - \lambda_{amber}}\right\}\right\}$$

This approach ensures progressivity and does not require any extra calculations since all the parameters are already required by FRTB: U is the outcome of the PLA test and the desks standalone standardised approach capital charges, SA_i, are required for reporting purposes [BCBS d352, §184].



iv. Trading desk requirements

We welcome the softening inception allowing a bank to assign an individual trader to work across two trading desks, after the approval of the supervisor. It could be however noticed that this limitiation could be unapplicable in small branches / subsidiaries and may lead to ask for some exemptions.

b. Non-modellable risk factors (NMRF)

i. Process for satisfying modellability requirements and expectations for internal model calibration

First, it is important to underline that the concept of NMRF remains unclear for us. There seems to be interchangeable definitions:

- Risk factors with poor observability: Does the definition lead necessarily to non-modellability, in particular when it comes to idiosyncratic risks? Multi-factor models, which are appropriately calibrated using representative historical data to capture both systemic and idiosyncratic risks, should be recognised, leading to both types of risk classified as modellable.
- Risk factors with poor liquidity: Does the definition require exclusion from the internal model when liquidity horizons could simply be bumped within the internal model?

Moreover, the whole NMRF framework is operationally complex and goes prudentially far from a commensurate and sensitive risk assessment.

As regards "Annex B" of the consultative document:

- B.2 Revisions to risk factor modellability: If we consider the 2 alternatives:
  - Alternative 1 - Banks must define the buckets they will use, in accordance with the granularity of their ES and PLA;
  - Alternative 2 - Banks must use exogenously specified buckets, at a minimum, those from the Standardised Approach.

We support Alternative 2. That being said, alternative 2 needs the following useful clarifications:

- For interest rate options, it should be specified that the bucketing of the underlying swap maturity is 6 as given in the SBM vega GIRR;
- Parametric models may be used to describe the strike dependency in the volatility structure (eg SABR model) and the mapping to the 8 proposed buckets for strike dimension is not relevant. In this case, each model parameter should be considered as a single risk factor, and modellability evidenced via the 6 or 6x6 underlying buckets described above as soon as the parameter is time-dependent;
- The same bucketing logic shoud apply on the calculation of SES also. Indeed those buckets are the recognition of that fact that high correlations exist on the given buckets (on maturities or strikes);
- When the internal model risk factors are less granular than the buckets proposed by the Alternative 2, the buckets must be defined by the risk factors themselves.

As regards "Annex D" of the consultative document:

- Preamble: It should be made very clear that the principles apply only to RFs that are already included in the ES model. RNIM do not need to be capitalised if the model without them passes PLA and BT. See in particular for Principle 2 below, regarding idiosyncratic risk.

- Principle 2: The principle should define what is "*idiosyncratic*" and consider a materiality threshold for the idiosyncratic risk, based on the PLA attribution test. As a consequence, principle 2 should be modified as follows: "*If the data used in the model do not reflect either idiosyncratic or general market risk* ***and if the P&L attribution test confirmed the materiality of the idiosyncratic or the general market risk****, the bank must apply an NMRF charge for those aspects that are not adequately captured in its model****.***"

- Principles 3 and 4: In principle 3, in order to reflect volatility and correlation in models, it is required to use "*data […] representative of real price observations (RPOs)*". Nevertheless, RPOs include price adjustment that are not included in mid prices. As a consequence and considering this requirement is already defined in the Guide for the Targeted Review of Internal Models (TRIM) issued by the European Central Bank, the documentation requirement defined in Principle 4 is difficult to set up. RPOs should be limited to specific cases when the credit institutions have all the details on the transaction. We want also stress that the data used for the PLA tests on the Risk Modelling will be extremely close to those used for EOD marking, which is controlled and validated by accounting on a daily basis.

- Principle 5: "*Sufficient frequency*" of model recalibration should be mindful of risk type that is captured in a model. E.g., rare events, like currency de-pegging or rating transitions, should not be subject to the same calibration frequency as market quotes that are changing daily.

- Principle 6: We urge the Basel Committee to calibrate a flexible framework to define the data used to determine stressed expected shortfall (ES) reflective of market prices observed or quoted in the period of stress. Indeed, to some extent, and after the approval of the supervisory authority, proxies should be authorised for the stressed ES model during the stress period. Use of proxies should be acceptable for non-reduced sets, as long as this treatment is authorised by the competent supervisory body. The scaling factor $ES_{F,C}$ / $ES_{R,C}$, should then incorporate any positions missing from $ES_{R,S}$ due to risk factor coverage. The latter is also valid in the cases when there is no "*most suitable risk factor of the reduced set*" for the position to be mapped to.

- Principle 7: It remains conceptualy unclear how "*combinations of modellable risk factors are to be considered as proxies*". The general principle of the original text[2], stating that choice of modelling a single-name (e.g, via multi-factor framework) does not affect the ability to use its actual return in PLA, should be confirmed, with no extra conditions.We thus propose that the requirement of extra capitalisation whenever data proxies are used in RTPL[3] is also dropped.

  We agree that both systemic and idiosyncratic components of Risk Factors should be explained by a Risk Model. However the requirement that "*idiosyncratic risk must be demonstrably uncorrelated across different issuers*" could be operationally difficult to achieve. There is always likely to be residual correlation in a multi-factor model, even estimated from the best available data: small sample size and/or the several volatility regime effects in the observation window would not allow a robust statistical proof.

- Examples 1 to 5: Example 5 looks like a principle and not like an example.

ii. Impact of the NMRF framework of irregular liquidity

Data required by the Basel Committee on risk factor eligibility test (RFET):

The current max gap rule (i.e., a quote at least every 30 days) is biased unfavourably against local markets with periods of traditional prolonged holiday periods, such as China ("Golden Weeks"), Middle East and Gulf countries ("Eid"), Russia (New Year and Orthodox Christmas), etc. Furthermore, prolonged holiday periods in August, as well Christmas and Easter periods may tip over the relatively less liquid European markets into NMRF terrain, despite having ample trading activity throughout the

[2] Basel d352, Appendix B.II.4 , "P&L Attribution"

[3] « If risk factors are represented by proxy data in the ES model, the proxy data representation of the risk factor – not the risk factor itself – must be used in the RTPL unless the bank has identified the basis between the proxy and the actual risk factor and properly capitalised the basis as an NMRF. » (BCBS d436, p. 32-33)

year. The current stringent modellability rules are thus likely to bring heavy capital impact, via punitive SES charges, on the following markets:

- Russia, China and Gulf states (rates and volatility);
- Long-term European treasuries, as well as long-term repos for sovereigns.

The consequences of punitive capital charges will be reduced activity in these markets, which will only aggravate any nascent liquidity issues and reduce, not foster, market depth and diversity. Alternatives to the 30-day max gap rule should thus be considered, in order to give the markets time to react and create more liquidity following a quiet period. "*3-in-90*" or "*weighted average*" gap rules are examples of such alternatives.

We urge the Committee to develop a framework not excluding low liquid capital markets like the European Capital Market Union. A "*one size fits all*" approach could be detrimental to some specialized markets (corporate bonds, commodities, etc.) and exacerbate inequalities.

iii. Increased gap rule flexibility for markets of variable liquidity

As explain above the maximum 30-day max gap rule will force many markets and risk factors to be capitalised as non-modellable. There may be temporary losses of liquidity and we believe that it should not automatically trigger a huge capital charge increase. Own fund requirements may turn very volatile with large shunks of risk factors moving in and out of the non-modellable status.

To add flexibility to the framework and prevent risk factors with temporary loss of liquidity into NMRF status, the 30-day max gap rule could be replaced by a weighted average gap rule (WAG) with a proposed threshold of 30-day as well.

$$WAG(RF_k) = \sum \frac{Gap_{i,k}}{\sum Gap_{i,k}} \cdot Gap_{i,k}$$

Where:

- $WAG(RF_k)$ is the weighted average gap for risk factor 'k'
- $Gap_{i,k}$ is the i^{th} gap for risk factor 'k'
- $Gap_{i,k}/\sum Gap_{i,k}$ is the weight applicable to $Gap_{i,k}$, it is proportional to the gap itself

This rule satisfies the following properties:

- For equally spaced real price observations, i.e. equal gaps, the test will be successful if real price observations are no more than 30 days apart;
- Longer gaps are possible, allowing for temporary loss of liquidity, if real price obervations increase in total. Hence this tolerance for longer gaps is only granted for risk factors exhibiting a sufficiently high level of liquidity outside those temporary period of subdued trading activity;
- The maximimum gap sizes for which the test may still be passed is 1 gap of slightly over 3 months all other gaps being of 1 day (daily real price observations) or 2 gaps of slightly over 2 months all other gaps being of 1 day.

The weighted average gap could be used not only for the risk factor eligibility test (RFET) but as well as a measure of the liquidity horizon at which the risk factor, if determined non-modellable, should be capitalised. The NMRF liquidity horizon would then be the WAG floored at the supervisory LH as defined in BCBS d352 §181:

$$LH(RF_k) = \text{Max}\{Supervisory\ LH(RF_k); WAG(RF_k)\}$$

iv. Impact of NMRF idiosyncratic equity risk

We welcome the Basel Committee proposal to revise exceedingly high capital requirements for equity risk NMRFs. Regarding the materiality of this issue:

- Regarding the risk factors in the scope of the adjustment (spot, forward, volatilities, dividends, repos) we expect that a significant number of them will be non modellable (except for spot).

- We also expect that after elimination of the general market risk (through the application of footnote 40) they will be mostly uncorrelated.

  It could remain a statistically significant correlation for a small set of risk factor pairs, with a very small impact on the risk of the portfolio. We recommend that the statistical "*pair by pair*" approach currently given in example in the text (and which represents a significant burden) is replaced by the verification at portfolio level that the square-root-sum-of-squares aggregation leads to an adequate capital charge.

  This can be done for example based on the empirical covariance matrix of the risk factors (in this case it will be the covariance of the residual idiosyncratic risk after application of footnote 40). To test that the risk factors are "globally 0-correlated" we can compare the Sqrt(Sumsq) aggregation and the aggregation using the actual covariance matrix for various portfolios.

  To this end one can generate a large sample of portfolios (Monte Carlo approach) with different concentration profiles, and different long or short positions, and get the distribution of the ratio between the two aggregations. If for a high level of confidence the percentile of the ratio stays close to 1 then it can be claimed that Sqrt(Sumsq) is appropriate (See APPENDIX I for a stylized example).

- Consequently the proposed aggregation scheme is expected to reduce significantly the SES charge on the equity risk class, even if some non idiosyncratic equity risk will remain (notably those linked to exotic risk factors).

Moreover, we would like to stress the Basel Committee that this issue is not only a model design issue but also a political concern impacting some geographical zones. Indeed, if the banks cannot benefit of this more suitable and economically sound amendment, this will prevent small and mid-sized corporates from access to capital markets.

v. Aggregation of other NMRFs

The simple sum aggregation of other NMRFs is overly penalizing, and is not related to any risk management / risk sensitiveness approach. This is particularly true given the high number of non modellable risk factors (the simple sum aggregation corresponds to a scenario where each risk factor moves in the adverse way for the bank) and given the fact that each NMRF is allowed to be represented as a MRF proxy plus a NMRF basis, leading to non perfectly correlated (relatively low correlated indeed) behaviours: the probability of the underlying scenario is more than extremely small.

This should also be viewed in a context where a lot of uncertainty remains on what will be the exact scope of NMRFs[4] with a risk that the SES charge may be multiple times the ES+DRC charge IMA, and moreover induces a great variability of IMA from time to time not reflective of actual risk.

Those concerns can be addressed with a simple aggregation mechanism, inspired from the "*Basic Approach for CVA*", where the SES charge would be the sum of the idiosyncratic credit spread risk charge, the idiosyncratic equity risk charge, and an aggregation of the other NMRFs:

$$SES = \sqrt{\sum_{i=1}^{I} ISES_{NM,i}^2} + \sqrt{\sum_{j=1}^{J} ISES_{NM,j}^2} + \sqrt{(\boldsymbol{\rho} * \sum \boldsymbol{SESs\ of\ all\ other\ NMRFs})^2 + (\mathbf{1} - \boldsymbol{\rho}^2) * \sum(\boldsymbol{SESs\ of\ all\ other\ NMRFs})^2}$$

This mechanism is based on a single parameter rhô that can be interpreted as an average correlation across non modellable risk factors. Quoting / adapting the regulatory text (BCBS d424): "*In the formula above, the effect of ρ is to recognise the fact that the NMRF risk [CVA risk] to which a bank is exposed is less that the sum of the NMRFs risk for each risk factor [CVA risk for each counterparty], given that the NMRFs [credit spreads of counterparties] are typically not perfectly correlated.*"

Additionally to the economical soundness brought by this recognition of the lowering of the correlation after application of footnote 40, it is worth noting that the parameter rhô provides the regulator a flexible lever to regulate the impact of NMRFs. The calibration of rhô may be done after a monitoring phase.

c) Other items not directly covered by the consultation

i. Cap on liquidity horizons

The industry believes capping the LH for a risk factor "*at the maturity of the related instrument*" [BCBS d352 §181(k)] should be an option, and not a requirement. Indeed, from a theoretical standpoint, this maturity cap traduces some sort of "*constant position*" assumption whereby no position shall be renewed beyond its expiry. It seems **inconsistent with the general "*constant risk*" assumption** prevailing in the ES formula itself, where the intensity of risk factors (from 0d to 10d, from 10d to 20d, from 20d to 40d, etc.) is deemed constant throughout the life of the positions in spite of the portfolio ageing. Added to that, it has to be noted using the word "*should*" in last sentence of para 181(k)

[4] In particular, it is too early to assess the real benefits of data pooling; we can also expect seasonality effects...

contradicts with the rest of that paragraph, especially the allowance to increase the LH of a broad risk factor category at the desk level to avoid breaking of hedges.

In short, as currently written, on one hand the paragraph implies that the prescribed LHs are to be treated as floors**,** and on the other hand, it talks about capping that floor**.** In addition, if mandatory in all cases, this capping requirement will create added operational/computational burdens to implement as well, and hence the industry believes that the word "should" in the last sentence of para 181(k) needs to be replaced with "*may*" in the final rule text.

We ask for the following adjustments in the last sentence of Para 181(k): *"Furthermore, liquidity horizons **may** ~~should~~ be capped at the maturity of the related instrument".*

ii. Liquidity horizons for multi-sector indices

We believe the March 2018 FAQ (i.e. BCBS d437) response requiring that LH for multi-sector indices should be determined using the weighted average LH of the constituents is problematic. As for the cap of liquidity horizon in Expected Shortall, it imposes further operational and computational burdens. On top of that, it can lead to situations where even one constituent of an IG index being downgraded will result in the weighted average LH to become slightly greater than 20 days, and at that point, the LH of the entire index will have to be switched to the next highest LH, i.e. 40 days, although the index is economically more liquid than its components.

Thus, the industry recommends that, for multi-sector indices:

- When the composition of the index is standardised, the liquidity horizon should be determined consistently with the nature of the entire index. For example, a corporate IG index would be mapped to a liquidity horizon of 40 days and a corporate HY index would be mapped to a liquidity horizon of 60 days;
- Otherwise, the weighted average liquidity horizon may be used and assigned to the closest corresponding liquidity horizon (out of 10, 20, 40, 60 and 120 days). For example if the weighted average liquidity horizon is 26 days, the liquidity horizon of the index would be 20 days and if the weighted average liquidity horizon is 33 days, it would be 40 days.

This approach would accurately reflect that indices are economically more liquid than their components.

III- Boundary between the trading book and the banking book

The Consultative Paper introduces some flexibility in terms of treatment of Equity investment in funds but remains not aligned with economical practices. Indeed, the industry argues that funds that are held for trading purposes should remain within the trading book.

While FRTB does not define the term market-making, such term has been generally construed broadly across various jurisdictions (see Appendix 2 of the CGFS study on "market making and proprietary trading giving an extensive panorama of market making definitions"[5] - see pages 47 & following). Regarding the European Union, the MIFID II Directive gives also a generic definition of what constitutes market making, also with no limitation of assets on which market making activities can be conducted. Most pertinent here, the term "**market-making" is central as an exemption to the prohibition on proprietary trading in financial instruments under the Volcker Rule and French Banking Law**. In the Volcker Rule, an exemption for market-making is also available for certain covered fund activities.

Among other activities, the following can be classified as market making activities under the Volcker trading exemption so long as all compliance requirements of that trading exemption are met, along with, where applicable, an appropriate covered fund exemption:

- acting as a market maker in liquid fund interests;
- acting as a market maker in fund-linked products and engaging in related hedging activity involving fund interests;
- acting as a market maker for derivative products (such as prepaid forwards) as a means for extending financing to funds of hedge funds, collateralized by hedge funds shares;
- acting as a market maker in gap puts linked to a basket of hedge fund shares.

Among other activities, the following can be classified as market making activities or furniture of services to clients under the French Banking Law trading exemption so long as all compliance requirements of that trading exemptions are met:

- acting as a market maker in fund-linked products and engaging in related hedging activity involving fund interests;
- acting as a market maker for derivative products (such as prepaid forwards) as a means for extending financing to funds of hedge funds, collateralized by hedge funds shares;
- acting as a market maker in gap puts linked to a basket of hedge fund shares.

If further flexibility is granted to align with Market practices, industry understands that current framework does not discuss in detail how such funds without daily look-through should be capitalised.

As such, we propose very little modification to current rules to be able to correctly capitalise those activities. In that context, we believe that it is important to remind the following computation frequencies:

(i) ES and SES are computed daily;
(ii) DRC IMA is computed on a weekly basis;
(iii) SA (SBM, DRC and RRAO) are computed on a monthly basis.

[5] http://www.bis.org/publ/cgfs52.pdf

In this context, and specifically where look-through is not available daily, the frequency of the availability is key to design a proper capitalisation approach.

We thus propose the following which in practice implies very little modifications of the current framework:

- Standard Approach:
    1. When look-through or benchmark's look-through is available at least on a monthly basis, the fund may be looked through with the last available composition and capitalised accordingly;
    2. When look-through and benchmark's look-through is not available with sufficient frequency (monthly), the fund shall be assigned to the Equity "Other" bucket for SBM capital charge. Given the fund diversification and resulting lower volatility, a lower supervisory risk weight could be attributed to funds within the Equity "Other" bucket;
    3. The default risk charge (DRC) of funds with insufficient look through or benchmark's look-through frequency (less than monthly), the fund position could be treated as a single distinct issuer, the jump to default calculated with a low supervisory LGD [d352 §144] to reflect the low fund loss of value resulting from the default of one of its constituent, and a supervisory risk weight [d352 §152] no higher than the one assigned to unrated issuer (15%).

- Internal Model Approach:
    1. When look-through or benchmark's look-through is available at least on a weekly basis, the fund may be looked through with the last available composition and capitalised accordingly;
    2. For DRC purposes, funds with an insufficient look-through or benchmark's look-through frequency (less than weekly) may be treated as a single distinct issuer with a PD reflecting a higher degree of default occurrence (probability of any of the fund constituent issuer defaulting) and a lower loss given default (the losses resulting from one of the fund constituent default are limited).

IV- Securitisations

a. Default risk charge (DRC) for securitisations other than correlation trading portfolio

The Basel standard for market risk [BCBS d352[6]] describes in paragraph 161 the SA-DRC methodology for securitisations (non-CTP) as similar to the methodology given for non-securitisation credits but with specific risk weights that are given in the Basel standard on the revision of the securitization framework (BCBS d374[7]).

Among other precisions it asks that the hierarchy of approaches given in this last BCBS be respected.

The problem is that only the SEC-ERBA approach is actually similar to the market risk approach, that is to say, is based on risk weights that depend on ratings and that are applied to notional exposures. Moreover, the other approaches require data that are not systematically available on the trading perimeter. For all these reasons we would like to ask at least for flexibility to use the SEC-ERBA for the trading book in the context of the FRTB SA-DRC.

b. Correlation trading portfolio (CTP)

The Correlation Trading Portfolio (CTP) is a Credit business focused on issuance of synthetic credit securitizations, with the aim of providing vanilla credit market returns to investors, tailored for risk appetite – either leveraged for a higher risk/return profile (junior tranches) or de-leveraged for lower risk/return (senior tranches). Unlike traditional securitization markets, synthetic securitizations use market traded CDS in the underlying collateral pool, and so can be valued and risk managed based on the underlying risk drivers.

Bespoke trades are either based on Standard index baskets with customized features such as Fixed Recovery payoffs, non-standard tranching or maturities or based on bespoke baskets sometimes. As The standard indices don't change massively at the bi-annual roll, this ensures a fair liquidity even for off-the-run indices.

The benefits of this market include greater liquidity for the CDS market, and increased investor base for the corporate debt market, and ultimately, improved funding conditions for corporate issuers.

The CTP business is key for the French Banks and it represents a fairly big part of our clients requests. Furthermore, CTP is not anymore used for arbitraging credit rating agencies.

The current rules **do not meet the objective of risk sensitivity.** They will produce **uneconomic overall capital** which may ultimately incentivise banks to **break economic hedges** in order to reduce capital which should not be an aim of a regulatory capital framework. Moreover, their lack of clarity will result in **limited own funds requirements comparability between banks**.

The framework for CTP exposure capitalisation is:

- **Excessively conservative**: multiple layers of conservatism within the FRTB
  - Lower SBM basis correlation, 99% instead of 99.9% for non securitisations [BCBS d352, §91]
  - Higher SBM Delta risk weights, compared to CSR Non-SEC [BCBS d352, §90]

[6] https://www.bis.org/bcbs/publ/d352.pdf
[7] https://www.bis.org/bcbs/publ/d374.pdf

- A SBM curvature risk charge on all CTP securitisations [BCBS d352, §68(c)(iii)]
- A residual risk add-on (RRAO) of 0.1% on all CTP securitisations [BCBS d352, §58(e)(ii)]
- A default risk charge (DRC) calculated independently from Non-Securitisations [BCBS d352, §136] and conservatively [BCBS d352, §170-175]

- **Overly complex**:
  - For the purpose of CSR, indices and index tranches may not be decomposed in single name exposures while basket tranches may [BCBS d437, Sect 1.6 Q2]
  - The default risk charge (DRC) decomposition in single name jump to default (JtD) exposures is unclear [BCBS d352, §169(a)]

- **Sometimes inconsistent:**
  - DRC decomposition in single name exposure should be at zero recovery whereas it is at 25% (for senior debt) for Non-Securitisations [BCBS d352, §169(a)]
  - Tranche products are attributed a curvature charge while non-tranched hedges are not leading to an apparent convexity opened position [BCBS d352, §68(c)(iii)]

i. Default Risk Charge for CTP

The default risk charge (DRC) for CTP is **unclear**, **complex**, does not reflect how risks are managed thus will result in **non-risk sensitive results** and generally **overstated capital charge**.

The rule as written seems to allow either computation through non-decomposition of tranches using Banking Book risk weights or decomposition into single names. Yet, it **is not clear how such decomposition should be interpreted nor implemented**.

Focusing on the decomposition approach, the current rules lacks clarity and is inconsistent**:**

- Decomposition methodology:
  - Equivalent exposure computation

"...the sum of the decomposed single name amounts must be consistent with the undecomposed value of the securitization"

It is not clear how this should be interpreted nor implemented in practice. Multiple interpretations were explored, among which:

i. JtD computation per issuer scaled proportionally such that the sum is equal to the tranche JTD. (Cf. examples below);
   Such scaling will result in incorrect and inconsistent capital charges, either over or under-capitalisation.
ii. Cumulative sum JtD computation until the tranche is exhausted

➔ we believe that there is no economically sound way to do such decomposition with scaling. Any attempt to scale resultant JTD's to achieve this will produce incorrect capital charges.

  - Choice of LGD: use of a 100% LGD unlike in the Non-Securitisation approach.

- Default risk weight: there are no instructions on which risk weights to assign to decomposed single name exposures.
- Bucketing and Capital Charge calculation:
  - The bucket to which an index product shall be mapped to is unclear.
  - Netting of sensitivities stemming from bespoke products with sensitivities of index products is prevented

Example 1: non-SEC risk weights applied to scaled decomposed JtD

5-name FTD short protection BBB, 20m notional, partially hedged

	FTD JtD per name	Scaled FTD	CDS hedge	Net JtD	Capital
Name 1	20	4	-10	-6	-0.36
Name 2	20	4	-10	-6	-0.36
Name 3	20	4	-10	-6	-0.36
Name 4	20	4	-10	-6	-0.36
Name 5	20	4	-10	-6	-0.36
Captial = Σ(JtD * RW each name) =Σ(-6 * 6%) = -1.8 <0					**0**

In this example, one could expect a capital charge instead of a negative impact (0 capital).

Example 2: non-SEC risk weights applied to scaled decomposed JtD

5-name FTD long protection BBB, 20m notional, default risk hedged

	FTD JtD per name	Scaled FTD	CDS hedge	Net JtD	Capital
Name 1	-20	-4	20	16	0.96
Name 2	-20	-4	20	16	0.96
Name 3	-20	-4	20	16	0.96
Name 4	-20	-4	20	16	0.96
Name 5	-20	-4	20	16	0.96
Captial = Σ(JtD * RW each name) =Σ(16 * 6%) = 4.8 >0					**4.8**

This strategy default-hedged should produce 0 capital whereas it results in an important capital charge.

Example 3: reference index CDX NA HY 2

Right hand side column: one possible interpretation of "consistent with undecomposed value of the securitisation"

	Sum of notional equivalent CDS with zero recovery	Sum of notional equivalent CDS with consistency at tranche level
Equity tranche [0;10%]	**72**	**10**
Junior [10%;20%]	**25**	**10**
Senior [20%;35%]	**9**	**9**
Super Senior [35%	**4**	**4**
Sum of decomposed single name amounts	**110**	**33**
Undecomposed value of the securitisation	**110**	**110**
Consistency check	**0**	**77**

Some banks are considering consistency at tranche level, which would break level playing field and unduly foster selling of equity tranches (right column). FBF advocates to interpret paragraph 169(a) economically (left column)

➔ Industry proposal:

The industry therefore suggests a simple rewrite, with no introduction of new concept or complex formula but simply clarifying:

- Decomposition methodology: All CTP instruments (index and bespoke tranches, single name and index CDS) should be **decomposed into Single Name equivalent exposures**.
  - Equivalent exposure computation: Compute a JtD per reference name as the change in the instrument value (including cash payment due for equity tranches) all other reference names non-defaulting. **No scaling** should be used.
  - Choice of LGD: non-securitisation supervisory LGD could be used; 25% for senior bonds.
- Default Risk Weight: **The Non-Securitisation RW should be applied**.
- Bucketing and Capital Charge calculation should follow the Non-securitisation approach.

It would resolve the issues listed above and remove the need for complex replication/offsetting rules. Further, as the risk factors are the same risk factors as in the non-securitization DRC, following the same methodology is appropriate (Cf. APPENDIX II and APPENDIX III) ; in particular Corporate and Sovereign buckets seem adequate for this metric.

ii. Standardised approach

1) Index tranche treatment

The FAQ [BCBS d437 Sect 1.6 Q2] response seems to indicate **that indices and index tranches cannot be decomposed** whereas **non-index tranches (bespokes) could be decomposed** in single name exposures.

The answer provided adds at best ambiguity and at worst contradicts other parts of the text:

- The CSR CTP defines risk factors as "*the relevant underlying credit spread curves*";
- The bucket to which an index product shall be mapped to is unclear;
- The assigned risk weight will be overstated as set by the index underlying name of highest RW.

Moreover, this is not aligned with market practices resulting in a non-sensitive metric and a punitive capital charge:

- Bespoke instruments (non-index tranches) are hedged with (i) index tranches to hedge correlation risk and (ii) indices or single names to hedge credit spread risk;
- Risk management of such activities is as well aligned to this full look-through approach for credit spread risk management;
- Netting of sensitivities of non-index products with sensitivities of index products is prevented, despite there is generally being a high degree of overlap in the underlying single names of the bespoke tranches and index;
- This fundamentally breaks this hedge relationship and results in higher capital charges when engaging risk-reduction hedging.

Versions of consultative texts prior to the final standard [BCBS 305 Section 2.9 on CTP] provided more guidelines on the above:

> *"Once the standardised approach used sensitivities rather than cash flows as inputs, the Committee considered that a look-through approach could be implemented and the treatment of credit spread with non-securitisations could be aligned as it facilitated the incorporation of hedges."*

➔ Industry proposal

In order to keep risk sensitivity and consistency, industry recommends that **decomposition should be kept for all tranched products be it bespokes or index tranches**.

2) SEC-CTP credit spread

SEC-CTP credit spread risk weights should be identical to those of the Non-SEC perimeter.

The applicable CSR risk weights are many times larger than the ones applicable to non-securitisations, 1.33 to 8 times larger. The rational provided is: *"the risk weights and correlations of the Delta CSR non-securitisations are modified to reflect longer liquidity horizons and larger basis risk"* [BCBS d352, §89]

The increased risk weight corresponds to a liquidity horizon increase ranging from x1.8 to x64 which correspond for some buckets to a liquidity horizon exceeding 1 year.

It is important to note that basis risk is already captured through a lower basis correlation (99% instead of 99.9%) [BCBS d352, §91]. A basis correlation (of 99%) applies between CSR sensitivities stemming from multi-underlying instruments and CSR sensitivities of single name instrument, unlike for Non-SEC where full netting is allowed.
"*The sensitivities to constituent risk factors from index instruments and multi-underlying options are allowed to net with sensitivities to single-name instruments without restrictions, although this does not apply to the correlation trading portfolio*" [BCBS d436, §69(a)]

However, the SBM capital charge is risk factor based not instrument based: If instruments themselves may not be sold in stressed market conditions as easily as un-tranched credit instruments, sensitivities to credit spreads may be hedged within the same liquidity horizon as in the non-securitisation perimeter.

iii. Full capital structure and RRAO

A residual risk add-on capital charge of 0.1% applies to all CTP securitisations [BCBS d352, §58(e)(ii)], however, the residual correlation risk extinguishes when tranches replicate the Full Capital Structure. Hence, we are of the view that a collection of tranches economically equivalent to a non-tranched index or a pool of single name CDS, should not be subject to a RRAO charge.

Furthermore, the same rule could be applied to Curvature capital charge.

V- Treatment of structural FX positions

The Basel proposal is welcomed. Nevertheless, we would like to underline the following concerns:

- The structural open FX position depends on a management choice. It is a long term choice with the objective to reduce the sensitivity of the ratio to FX variations.
- It must be possible to hedge the ratios both with cash instrument and with derivatives. Management board should be free to choose the most adequate hedging strategy.
- All FX positions should be considered in the net and structural FX position, whether managed in the trading book or in the banking book and irrespective of the booking (in a branch, in a subsidiary, at operating level or at holding level), the accounting or the underlying instruments.
- The maximum size of the structural position should be determined in reference to the actual or target capital ratios (CET1), in order to fulfil the objective of reducing the ratios volatility to FX movements. Hedging the ratios sensitivity should be constructed as "*reducing*" the FX-sensitivity not as fully neutralising the FX sensitivity. Structural net assets (or net assets equivalent positions in derivatives) that are taken or maintained with a view to reduce this sensitivity must be considered as an acceptable strategy.
- For the demonstration of the efficiency of the protection provided by the net open structural position on the solvency ratio, the close correlation between currencies could be taken into account. For instance, an open structural position in USD can be seen as protecting the ratio from variations of RWA resulting from assets denominated in USD.

We ask for the following adjustments in the Annex E.1:

« *4. […]:*

(a) The risk position is taken or maintained for the purpose of hedging partially or totally against the potential that changes in exchange rates could have an adverse effect on its capital ratio.

(b) The risk position is of a "structural", ie of a ***durable*** ~~*non-dealing*~~*, nature such as positions stemming from:*

- *investments in affiliated* ~~*but not consolidated entities*~~ *denominated in foreign currencies* ***(participations in subsidiaries, branches, non-distributed P/L of these entities…)***; ~~*or*~~

- ~~*investments in consolidated subsidiaries or branches denominated in foreign currencies.*~~

- ***hedges of investments in affiliates denominated in foreign currencies***

- ***tangible & intangible assets***

- ***capital operations***

(c) The exclusion is limited to the amount of the risk position that neutralises the sensitivity of the capital ratio ***(current or target)*** *to movements in exchange rates.*

~~*(d) The exclusion from the calculation is made for at least six months.*~~

(e) The establishment of a structural FX position and any changes in its position must be pre-approved by the national supervisor.

~~*(f) Any exclusion of the risk position needs to be applied consistently, with the exclusionary treatment of the hedge remaining in place for the life of the assets or other items.*~~

(g) The bank is subject to a requirement by the national supervisor to document and have available for supervisory review the positions and amounts to be excluded from market risk capital requirements. »

We ask for:

- The deletion of paragraph (d) because we believe that the reference to this six-month minimum period should be removed. For example, the P&L of the subsidiaries is hedged at year end. In April, most of them will distribute their dividends to their mother companies. Hence at this time, and not at end of June, the FX exclusions must be adjusted;
- Paragraph (e) should be completed with some examples;
- As regards paragraph (f), we do not understand the reason why the hedge should remain in place for the life of the assets. This paragraph remains unclear and we ask for its deletion.

VI- Simplified alternative to the standardised approach

If we agree that the simplified approach should not apply to globally systemically important banks (G-SIBs), it should be considered in the transposition how much this recalibrated version of the Basel II standardised approach should apply to subsidiaries and branches of G-SIB with small trading books, as they meet the other criteria (no use of internal model for determining the market risk capital requirements for part of their trading book and no correlation trading portfolios) on a standalone basis for the calculation of market risk own funds requirements. If subsidiaries and branches are allowed to use this simplified methodology, it should be clarified that RWAs calculated with the simplified approach at the entity level may be considered at the consolidated level of a group.

Appendix I: Idiosyncratic equity risk - Approach for demonstrating 0-correlation at the portfolio level

a) As already presented to the MRG at the 11th of January 2017 meeting, application of footnote 40 reduces dramatically the correlations between idiosyncratic equity risk factors

Full period 2007-2017

Correlation 3Y vol - 20D changes

	ALLIANZ	BNP	LVMH	TOTAL	BAYER	VEOLIA	CAP GEMINI	ABERTIS	TELECOM ITALIA	BOUYGUES
ALLIANZ	1.000	0.739	0.708	0.756	0.779	0.678	0.710	0.548	0.623	0.689
BNP	0.739	1.000	0.767	0.739	0.624	0.690	0.733	0.499	0.566	0.631
LVMH	0.708	0.767	1.000	0.746	0.635	0.675	0.762	0.503	0.492	0.645
TOTAL	0.756	0.739	0.746	1.000	0.744	0.698	0.679	0.535	0.567	0.705
BAYER	0.779	0.624	0.635	0.744	1.000	0.609	0.623	0.594	0.576	0.623
VEOLIA	0.678	0.690	0.675	0.698	0.609	1.000	0.738	0.500	0.552	0.675
CAP GEMINI	0.710	0.733	0.762	0.679	0.623	0.738	1.000	0.519	0.508	0.667
ABERTIS	0.548	0.499	0.503	0.535	0.594	0.500	0.519	1.000	0.514	0.519
TELECOM ITALIA	0.623	0.566	0.492	0.567	0.576	0.552	0.508	0.514	1.000	0.527
BOUYGUES	0.689	0.631	0.645	0.705	0.623	0.675	0.667	0.519	0.527	1.000

Correlation 3Y vol **basis single name / generic** - 20D changes

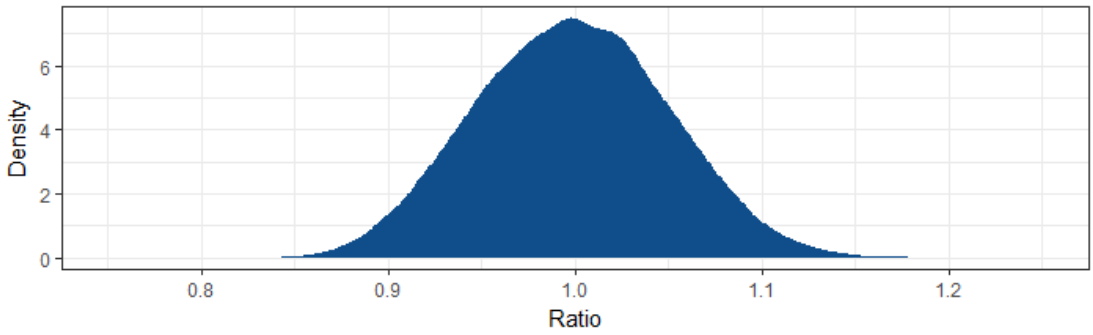
	ALLIANZ	BNP	LVMH	TOTAL	BAYER	VEOLIA	CAP GEMINI	ABERTIS	TELECOM ITALIA	BOUYGUES
ALLIANZ	1.000	0.249	0.026	-0.056	-0.036	0.073	0.086	-0.027	0.096	0.012
BNP	0.249	1.000	0.168	0.040	0.000	0.153	0.150	-0.004	0.077	-0.041
LVMH	0.026	0.168	1.000	0.127	-0.021	0.041	0.193	0.027	-0.131	-0.038
TOTAL	-0.056	0.040	0.127	1.000	0.087	0.091	-0.058	0.010	-0.065	0.139
BAYER	-0.036	0.000	-0.021	0.087	1.000	0.060	0.056	0.164	0.045	-0.065
VEOLIA	0.073	0.153	0.041	0.091	0.060	1.000	0.197	0.054	0.095	0.118
CAP GEMINI	0.086	0.150	0.193	-0.058	0.056	0.197	1.000	0.008	-0.055	-0.056
ABERTIS	-0.027	-0.004	0.027	0.010	0.164	0.054	0.008	1.000	0.176	0.038
TELECOM ITALIA	0.096	0.077	-0.131	-0.065	0.045	0.095	-0.055	0.176	1.000	0.015
BOUYGUES	0.012	-0.041	-0.038	0.139	-0.065	0.118	-0.056	0.038	0.015	1.000

- Equity volatilities are strongly positively correlated, but the NMRFs measured as basis over generic risk factors from other shares have low correlation
- This is measured for 20d differences over 10 years and there is a 95% chance that a process with zero correlation would have the range -0.179 to 0.179. Correlations outside this range in this example are highlighted.

b) Even if some pairs are slighty above the 95% confidence level threshold, aggregation in Sqrt(Sumsq) remains appropriate, as the ratio between empirical aggregation and 0-correlated aggregation is contained near 1:

Distribution of the ratio between aggregation actual correlation / aggregation Sqrt(Sumsq)

(50 000 random portfolios with long and short positions)



Percentiles:

Q01	Q05	Q25	Q50	Q75	Q95	Q99
0.887	0.915	0.962	0.999	1.034	1.083	1.116

Appendix II: DRC CTP – Industry proposal rewording

1) Gross Jump-to-default risk positions (gross JTD)

166. For the computation of gross JTD on securitisations in the CTP, a decomposition approach should be used, such that a JTD is computed for each reference name in the securitization portfolio. The JTD is defined as the total P&L incurred by the instrument on the occurrence of a default event in each reference name. In detail, the JTD is computed as follows:

a. A reference name is defaulted, with recovery set consistent with the LGD prescribed for Non-SEC in paragraph 144 – i.e. 25% for senior, 0% for non-senior.

b. The change in market value of the instrument is calculated.

c. Any cash payment due is calculated (generally applicable to equity tranches and first-to-default positions).

d. b and c above are summed to produce the total JTD for that reference name.

e. The steps above are repeated for each name, in turn and in isolation, to produce a JTD for every name in the underlying portfolio.

167. The definition of JTD for non-securitisations in the CTP (ie single-name and index hedges) positions is the instrument's sensitivity to a default of a reference name. For instance, for an index CDS position, the JTD is defined as the total P&L incurred by the Index CDS position on the occurrence of a default event. The total P&L will be comprised of both the change in the market value of the instrument, and any cash payment due as a result of the default. The recovery used in this calculation should be consistent with the LGD used for non-securitisations in paragraph 144.

2) Net Jump-to-default risk positions (net JTD)

168. Once all securitization positions have been decomposed to produce single name JTD exposures, they should be netted using the same approach as that used for non-securitisations, as outlined in paragraphs 150-151.

3) Default risk charge for securitisations (CTP)

169. The default risk charge should be calculated using the same approach as that used for non-securitisations, as outlined in paragraphs 152-156.

Appendix III: CTP - Examples with industry proposal

Example 1: non-SEC risk weights applied to scaled decomposed JtD

5-name FTDshort protection BBB, 20m notional, partially hedged

					Scaling approach	Industry proposal	
	FTD JtD per name	Scaled FTD	CDS hedge	Net JtD	Capital through scaling	Net JtD	Capital
Name 1	20	4	-10	-6	-0.36	10	0.6
Name 2	20	4	-10	-6	-0.36	10	0.6
Name 3	20	4	-10	-6	-0.36	10	0.6
Name 4	20	4	-10	-6	-0.36	10	0.6
Name 5	20	4	-10	-6	-0.36	10	0.6
Captial = Σ(JtD * RW each name)					**0**		**3**

Example 2: non-SEC risk weights applied to scaled decomposed JtD

5-name FTD long protection BBB, 20m notional, default risk hedged

					Scaling approach	Industry proposal	
	FTD JtD per name	Scaled FTD	CDS hedge	Net JtD	Capital	Net JtD	Capital
Name 1	-20	-4	20	16	0.96	0	0
Name 2	-20	-4	20	16	0.96	0	0
Name 3	-20	-4	20	16	0.96	0	0
Name 4	-20	-4	20	16	0.96	0	0
Name 5	-20	-4	20	16	0.96	0	0
Captial = Σ(JtD * RW each name)					**4.8**		**0**