

CRD 5: The Capital Framework for Trading Activities (Market Risk)

March 2017

1 - Overview of Key Messages

1. Significance and potential impacts

In a context where the EU is aiming at fostering the ability of its capital markets to support growth, the new capital rules for trading activities are particularly significant.

These proposed rules are based on the new market risk framework designed by the Basel Committee through its "Fundamental Review of the Trading Book" (FRTB)

Trading activities are crucially important for the EU economy

Bank trading activities are fundamental for the functioning of European capital markets, as they support: **Capital formation** (entrepreneurs or governments can fund new projects by issuing shares or debt); **Market-making** (banks create liquidity in markets and lower the cost of capital formation, by using their own capital to hold an inventory of assets, eliminating frictions between buyer and seller's needs); **Hedging solutions** (banks perform important risk-management services; they allow end-users - corporates, governments, investors - to diversify and hedge risks). Importantly, given the strong economies of scale and scope in these activities, the role of larger and globally active banks is central.

Balanced capital requirements are a precondition for a successful CMU

Banks' intermediation role in capital markets is particularly important in the EU, where capital markets, and end-users' ability to have direct access to them, are not fully developed. Disproportionate increases in capital requirements for certain trading activities would undermine the CMU project, including the objective of reducing excessive reliance on bank loans.

Preserving market liquidity needs to be a key objective

Disproportionate capital requirements would lead to banks reducing the balance sheet capacity they allocate to trading and/or to additional costs for end-users. This would result in reduced liquidity and depth in capital markets, leading to higher volatility and increased systemic risk. More broadly, ripple effects across all segments of the global economy would be created. For instance, reduced liquidity and higher volatility in government bonds markets would result in higher funding costs for governments; as these instruments are also key for the broader financial system (e.g. they are by banks as liquidity buffers and are important as financial collateral) this would create financial stability issues.

2. Industry Recommendations

The above listed crucial pitfalls should be avoided by adopting the following recommendations:

Ensuring full understanding of the capital impacts and appropriate calibration.

Quantitative assessments conducted so far have been at high level: impacts on the various products or regions need to be understood. At the same time, as highlighted in the EC impact assessment "analyses suggest that the overall calibration of the FRTB framework could be too conservative". In this respect, we welcome the phase-in period proposed by the EC, and the proposed mandates for the EBA to assess key elements of the framework.

Promoting a reconsideration at Basel level to preserve global consistency.

Significant design and calibration issues with the Basel FRTB framework have been identified. Particularly prominent issues to be reconsidered at Basel level include:

- For the internal models approach (IMA): methodology for, and calibration of, the "profit and loss attribution (P&L) test"; appropriate solutions for the modellability of risk factors;
- For the standardized approach (SA): recalibration to avoid cliff effects in case internal models cannot be used (particularly for FX, equities, covered bonds, US agencies securities).

Implementation timelines need to be realistic to avoid disruptions. We welcome the fact that the EBA would be developing key regulatory technical standards (RTSs), taking into account international developments. However, the proposed timeframe seems unrealistic: firms would only have few months between adoption of RTSs and their application.

3. Assessment of EC proposals

The EC legislative proposals acknowledge the validity of the concerns explained above and includes some positive steps. At the same time, important questions remain unaddressed and they require further consideration.

Potential detrimental impacts have been acknowledged by the EC

As stated in the impact assessment accompanying the proposals, the EC believes that the simple implementation of the FRTB Basel standard “could have a detrimental impact on the functioning of the EU financial markets via an excessive level of capital required for certain product types that could lead to increased prices, reduced trading volumes and restricted access to capital market for certain actors of the economy”.

General recalibration and phase-in: 65% multiplier during a 3-year period to offset excessive capital increase

The EC is proposing a phased implementation of the FRTB requirements by applying a 65% multiplicative factor to the capital requirements over a 3-year period. This would broadly offset the estimated average increase in capital requirements, respecting the commitment to avoid significant increases in capital requirements. We welcome this approach, which allows further work on the calibration of the framework to be undertaken also at Basel level.

No targeted recalibrations per asset class at this stage – Selected adjustments for covered bonds, STS securitisation, EU sovereigns

The EC has privileged the above mentioned general recalibration and avoided at this stage a recalibration at asset class level. Such recalibrations can be achieved in the revision proposed 3 years after the entry into force of the new rules. This is understandable, given the lack of impact analysis at product level. However, we believe in due course this targeted recalibration will be very important to avoid unintended effects on important products (e.g. foreign exchange markets; equities; securitisation; government bonds, US agency securities). In the meantime, we welcome the selected adjustments the EC has proposed for covered bonds, STS securitisations and EU sovereigns.

EBA mandates to define key aspects

- We welcome the fact that the EBA, through regulatory technical standards (RTSs) will be able to define key aspects of the market risk framework, in particular the “P&L attribution test” and the “non-modellable risk factors” (NMRF), taking into account international developments.
- As mentioned previously, the proposed timeframe for the finalization and application of the RTSs seem unrealistic: firms would only have few months between adoption of RTSs and their application, to build models, compile data and getting supervisory approval.

What is the Fundamental Review of the Trading Book (FRTB)?

The global financial crisis highlighted shortcomings in the Basel I and II market risk capital frameworks. As a short-term fix, revisions known as Basel 2.5 took effect in December 2011. The objective of the changes was to increase the amount of capital set against trading book risks under internal market risk models. While the Basel 2.5 dealt with the “capital issue”, the BCBS set out to run a more comprehensive review of the market risk framework (known as the Fundamental Review of the Trading Book) to address some of the broader supervisory concerns revealed by the crisis:

- **Trading book vs banking book boundary:** stringent rules are introduced to limit banks’ ability to move assets or risk from trading book to banking book and vice versa to avoid regulatory arbitrage.
- **Increase supervisory oversight and scrutiny over internal models:** Banks’ internal models will - be subject to stringent backtesting and disclosure requirements and internal models will be approved at a trading desk level instead of for all trading desks in scope for the model application. This will allow supervisors to address model failures where and when they occur without having to move all of the trading desks onto the standard approach.
- **Improve robustness of internal models:** 1) The new model standards require banks to calculate capital based on the expected shortfall (ES) measure, with the objective of better capitalizing for tail risks (or extreme events); 2) The introduction of liquidity horizons in the ES calculation to reflect the period of time required to sell or hedge a given position during a period of stress.
- **A more risk sensitive standard approach:** The new standardised approach is based on price - sensitivities, which is intended to be more risk sensitive compared to the existing standard approach, and therefore become a credible fall back to internal models.

The industry has been supportive of the trading book review and believes that generally the framework is an enhancement to the current rules. However, a number of important questions, summarised also in this note, need to be addressed.

Introduction

The new market risk framework enhances the current rules

With the CRD5 legislative package proposed by the EC in November 2016, the EU is starting the process towards the implementation of the new prudential global standard for market risk, known as the Fundamental Review of the Trading Book (FRTB). The industry has been supportive of the trading book review which is an enhancement to the current rules. At the same time, a number of important design and calibration questions need to be addressed before the FRTB can be implemented, to avoid it resulting in a significant and unjustified increase in capital requirements.

Important aspects of the FRTB need to be reconsidered to avoid a negative impact on financial markets

As clearly acknowledged by the EC in the impact assessment accompanying the legislative proposals, *“although the design of the prudential framework for market risks has been improved with the FRTB standards, it could have a potential detrimental impact on the functioning of the EU financial markets via an excessive level of capital required for certain product types that could lead to increased prices, reduced trading volumes and restricted access to capital market for certain actors of the economy”*. Official as well industry analysis show that the FRTB, in its current form, would result in a minimum 40/50 % overall capital increase and even more in case internal models are not approved. The latest BCBS QIS study on June 2016 data, including a broader set of banks from 22 countries concluded that the weighted average overall capital increase is higher than what they initially observed at 67.2% for group 1 banks, 75.9% for GSIBs and 87.4% for group two banks¹. It should be reminded that the objective of the FRTB has never been to further increase the capital requirements (the previous revision of the market risk rules, “Basel 2.5”, had already addressed the capital issue by increasing significantly the capital requirements) but rather to improve the overall design of the framework.

Banks intermediation role in markets is closely linked to the efforts to build the CMU...

As part of the efforts to boost jobs, growth and investment across the EU, the Capital Markets Union action plan, aims at developing more integrated capital markets and at offering corporates and investors more diversified sources of financing, complementary to bank loans. In this respect, banks’ intermediation activities are fundamentally important to functioning of the European capital markets that facilitate investment across the region. The following activities heavily rely on banks’ intermediation role in capital markets:

- *Capital formation* - entrepreneurs or governments can fund new projects by issuing shares or debt;
- *Market-making* – banks, acting as market-makers, create liquidity in markets and lower the cost of capital formation, by using their own capital to hold an inventory of assets, eliminating frictions between buyer and seller’s preferences and needs;
- *Hedging solutions* - banks perform important risk-management services; they allow end-users - corporates, governments, pension funds, insurers, asset managers - to diversify and hedge risks.

...and to financial stability

These activities are also closely linked to the market liquidity: if, as a result of disproportionate capital requirements, banks are forced to reduce them the negative impact on market liquidity would result not only in higher funding and hedging costs for end-users, but also in increased market volatility and systemic risk.

Importantly, given the strong economies of scale and scope in these activities, the role of larger and globally active banks is central. While, at aggregated level, assets in the trading books represent around 5% of all banks risk weighted assets, for globally active banks

¹ <http://www.bis.org/bcbis/publ/d397.pdf>

with strong capital markets activities that proportion is often well beyond 15/20%. Disproportionate capital requirements will hit particularly heavily these banks, which represent the biggest contributors to market making and to market liquidity.

All markets and EU Member States are impacted

It is important to stress that an inappropriately calibrated and disproportionate prudential treatment of market risk would have impact in all countries, no matter the size of their local markets or whether they are home to banks with significant capital market activities: first of all, efforts to develop capital markets, including at local level, would be undermined. Secondly, international banks provide liquidity for sovereign bonds issued by all EU States, large and small, and a reduced liquidity resulting from punitive capital requirements will increase the cost of funding for all States (and proportionately more for the smaller ones, whose sovereign debt instruments might be relatively less liquid, compared to the larger ones). Similar considerations can be applied to corporate bonds.

We welcome the proposal to ensure a more proportional treatment for smaller banks with limited trading books activities and limited market risk exposures; at the same time, we stress the crucial importance of the role played by larger, global banks and their ability to provide market liquidity and access to finance and to investment opportunities.

Industry views and recommendations

Industry's priority concerns in the area of market risk focus on the following main areas:

- I. **Ensuring full understanding of the capital impacts and adequate calibration;**
- II. **Promoting a reconsideration at Basel level to preserve global consistency;**
- III. **Implementation timelines need to be realistic to avoid disruptions;**
- IV. **Other issues;**

I. Ensuring full understanding of the capital impacts and adequate calibration

Limited analyses have been carried out

As highlighted also by the EC's impact assessment, only limited data analyses have been carried out to assess the capital impacts of the FRTB. Quantitative assessments have so far mainly completed at a high level, while impacts on specific products and on geographic regions remain to a significant extent unexplored and some aspects of the framework untested (e.g. P&L Attribution test). As mentioned in previous sections, the high-level analyses show a very significant potential capital increase for trading activities.

This detailed evidence and granular analysis is necessary in order to understand the impact at product level, and to be able to achieve a targeted recalibration per asset class. This needs to be done not only at EU level but also at Basel level (for instance, as part of the "coherence and calibration" initiative run by the FSB and BCBS in order to achieve a better calibration of the various components of the global prudential framework).

What is the EC proposing to avoid excessive capital requirements?

The EC has noted that "although the design of the prudential framework for market risks has been improved with the FRTB standards, it could have a potential detrimental impact on the functioning of the EU financial markets via an excessive level of capital required for certain product types that could lead to increased prices, reduced trading volumes and restricted access to capital market for certain actors of the economy".

In line with this concern, fully shared by the industry, the EC has proposed a three-year phase-in period during which the key mechanics of the FRTB framework would be maintained but the capital requirements are recalibrated by multiplying the FRTB capital outcome by 65%. This approach avoids any immediate capital increases and allows further work, including at Basel level, to achieve a more granular impact assessment and calibration of the rules.

II. Promoting a reconsideration at Basel level to preserve global consistency

Significant design and calibration issues with the Basel FRTB framework have been identified. Particularly prominent issues to be reconsidered at Basel level include:

- For the internal models approach (IMA): methodology for, and calibration of, the “profit and loss attribution (P&L) test”; appropriate solutions for the modellability of risk factors;
- For the standardized approach (SA): recalibration to avoid cliff effects in case internal models cannot be used (particularly for FX, equities, covered bonds, US agencies securities).

The P&L attribution test is the most important outstanding issue

Profit and Loss Attribution Test: This is probably the most important outstanding issue in the FRTB framework. The P&L attribution test is a test banks need to pass in order to be able to use internal models for each of the trading desks. It determines whether a bank’s internal model is sufficiently accurate and appropriately accounts for various types of risks, and involves comparing P&L values generated by the model against actual daily changes in portfolio values. If a trading desk fails it, it will have to determine the capital requirements on the basis of the standardised approach, which would lead to a significant increase in regulatory capital based on its current calibration.

While we agree with the principle of using a test to assess model performance, the Basel rules are not clear on this issue and there is still ongoing work to clarify and calibrate the test: the P&L attribution test has not gone through sufficient testing/QIS and there is evidence that its proposed design will cause well-functioning models to be rejected unnecessarily. If its design is not reconsidered the majority of trading desk are likely to fail the test and fall back to standard rules (resulting, according to industry estimates, in capital requirements up to 2.4 times the current level).

NMRF: potential severe impact on corporate bonds and small cap equity markets

Market liquidity and modellability of risks: The FRTB framework includes strict conditions under which banks are allowed to model various risk factors. This includes a requirement for “real” observations which is defined as 24 observations per year with a maximum interval of 30 days between 2 consecutive observations. If this criterion is not met, the risk factor is classified as “non-modellable” (NMRF – non-modellable risk factor) and a punitive capital add-on is required. Based on industry analysis, even in the US only circa 50% of bond issuers would fulfil this requirement, whereas in the EU and particularly in the smaller Member States/Eastern Europe we expect much smaller proportion of the market to be deemed liquid. Many EU markets tend to exhibit seasonal behaviour, with limited trading during the summer months or at the end of the year. Furthermore, by definition, new issuances will not exhibit the necessary time series of real observations for the first 12 months after issuance.

Being classified as a NMRF significantly increases capital charges under internal models (industry QIS study estimates NMRF at 30% of IMA capital charge) which, in turn, will have a negative impact on market making activities in corporate bonds and decrease the overall liquidity available in the market. This runs counter to the goal of developing European capital markets and reducing reliance on bank funding in the context of the Capital Markets Union. It will also make it particularly harder for smaller European corporates to obtain market based funding.

*A possible solution:
data pooling*

To mitigate some of the effects, the industry is in the process of establishing best practice data pooling solutions to satisfy the modelling criteria. It is essential that such solutions be allowed in the FRTB as otherwise liquidity will be bifurcated between high volume liquid issuances and less frequently-traded products that may become more expensive to issue and trade.

Asset Class	SBM to ES
Interest rate risk	3.3
Credit Spread risk	1.7
Equity risk	4.2
Foreign Exchange	3.6
Commodity risk	3.3

Recalibration of the standardised approach: A large gap exists between the required capital for the internal models approach (IMA) and the standardised approach (SA).

As shown in the table (industry BCBS QIS analysis²), this is particularly acute in some asset classes including foreign exchange (FX) and equities. This means that if a bank loses internal model approval for a trading desk, that would result in a very large jump in the capital requirements and therefore undermining the standard rules as credible fall back scenario to internal models³.

*What is the EC
proposing on: P&L
attribution test,
NMRF,
standardised
approach?*

On the P&L attribution test, the EC proposals include a mandate to the EBA to produce, by six months after entry into force of the revised CRR, technical standards to define the P&L attribution requirements, in light of international regulatory developments. This is a positive development, which would allow adequate analysis and consideration, also at Basel level. However, as explained below, the timeframe for the development of the EBA draft technical and their application seems not realistic as it would not allow sufficient time for firms and supervisors to implement.

On the NMRF, at this stage the EC is asking the EBA to develop technical standards for calculating the stress scenario risk measure for all NMRFs and also report, by five years after entry into force of the revised CRR, on the assessment of the modellability of risk factors.

On the possible recalibration of the standardised approach, the EC proposal does not provide a clear path for incorporating any BCBS revisions.

III. Implementation timelines need to be realistic to avoid disruptions

The EC proposal gives EBA a mandate to develop a number of key technical standards, taking international developments into account. This is a sensible and positive approach as it allows more in depth technical analyses and more time to understand the implications of the various aspects of the new rules (including, for instance, the design and the impact of the P&L attribution test).

However, we are concerned the timeframe for the finalisation of these technical standards and their application might not provide firms (to build models and compile data requirements) and supervisors (to assess the models) with sufficient time. Assuming an entry into force of the revised CRR in January 2019, EBA will have six months to complete the draft RTS (by July 2019) and then several months (probably around 6 months, potentially more) will be necessary, for the EC to endorse the RTS. Assuming an application date of January 2021 (i.e. entry into force + 2 years) only a few months (maybe one year, potentially less) will be available for firms to build models and compile supporting data, and for supervisors to process a high concentration of model applications. We believe the timeframe is not realistic and therefore suggest at the minimum three year implementation period (possibly a 1 Jan 2022 FRTB go-live date) would be necessary to avoid a rushed process and likely disruptions.

² Comparison of the SA to the IMA at the asset class level does not take into account the cross-asset diversification benefit under IMA, the regulatory multiplier is included in the IMA figures and certain banks contributed data with earlier reference data of 31st December 2015.

³ The BCBS is also contemplating applying a standardised approach based capital floor on internally modelled capital, which would likely result in significant further increases in capital requirements.

At this stage, the EC proposal, does not take into account the time and resources consuming process that firms and supervisors will have to undertake before the implementation of the level 1 rules and of the technical standards.

IV. Other issues

The following additional specific areas need to be considered:

Recognition of tail risk hedges in the SA: An overarching issue across all asset classes in the SA under FRTB relates to the lack of protection against losses if markets move violently- or “positive gamma” - on reducing risk. While in many ways the improvements in the FRTB for internally modelled capital requirements particularly relate to capturing the tail risk, it is counterintuitive that hedging instruments that specifically provide protection against such losses are not recognised under the SA. This can cause the ratio of RWA calculated by SA to IMA to be very large, which is inconsistent with the FRTB’s intended goal of making the SA more risk sensitive and a credible fall back to the internal models. By not recognizing the effect of positive gamma for reducing tail losses for each risk class, and/or as a macro-hedge of the bank as whole against losses from future systemic stress shocks, the proposed rules undermine the incentive for banks to hedge tail risk.

Foreign Exchange (FX) market: At a time where FX market is undergoing fundamental changes (e.g. reduced global volumes) and upward pressure on end-users’ costs for hedging products, two issues need to be addressed:

- FX calibration should be revisited under both the Standardised Approach and Internal Models Approach to avoid significant cliff effects between the two approaches.
- The triangle rule⁴ must be allowed: if two currency pairs have a liquid market, this implies a liquid market for the third, “overlapping” pair. Unless the triangle rule is allowed, most EUR cross pairs will be subject to a flat 30% risk weight and a 20 day liquidity horizon.
- Under the standardised approach the FX risk factor is defined in relation to the banks reporting currency. European banks whose reporting currency is not the USD will be penalised under the current FRTB SA as their own and client-related FX hedging transactions will attract more capital than banks with USD as their reporting currency.
- For interest rates risk under both the IMA and SA preferential treatment is given to a banks domestic reporting currency⁵. These rules will inadvertently penalise banks operating with a significant presence in several countries and (home) currencies and in doing so create a barrier for international and EU banks to have significant participation in certain EU markets. This is especially the case for the non-Euro EU markets⁶. We believe the rules are at odds with the concept of a single EU market, as they create an un-level playing field and may directly lead to a reduction of liquidity in these markets.

Securitisations: The Basel FRTB framework does not allow exposures to securitisations in the trading books to be internally modelled. This risk insensitive approach could lead to significant withdrawal of market making capacity. Based on industry analysis, market making in securitisations would become unprofitable at such high capital levels.

Covered bonds: In terms of credit spread risk, covered bonds are highly correlated with government bonds rather than with bonds issued by financial institutions. Their risk

⁴ For example, if EUR/USD and USD/NOK are both liquid markets; it is therefore possible to trade EUR/NOK via the two liquid USD markets implying that EUR/NOK is also liquid. This is known as the ‘triangle rule’.

⁵ Interest rate risk in a bank’s domestic (reporting) currency is considered to belong to the most liquid (10 day) bucket under IMA and under SA receives a reduction in the risk weight by dividing the risk weight by the square root of 2.

⁶ For example, a bank whose reporting currency is Danish Krone would be able to put DKK interest rate risk in the 10 day liquidity horizon bucket under IMA, while a bank whose reporting currency is EUR (even those with significant presences in the Danish market) would have to put DKK interest rate risk in the 20 day bucket, even though the risk is the same.

weighting should therefore not mirror the credit risk of the issuing institution but the quality of the assets and the over collateralisation of the covered pool.

In the Commission's proposal, covered bonds issued in the Member States receive a beneficial treatment. While the Commission's proposal represents an improvement from the BCBSs calibration, the revised risk weights still dramatically overstate the credit spread risk for the EUs largest covered bond markets. Also, we believe that additional granularity could be built into the framework to achieve an adequate level of risk sensitivity.

US agencies securities: Similarly, to covered bonds, the treatment of US agencies (Fannie Mae and Freddie Mac) secured debt is overly conservative, damaging the market and EU banks' ability to intermediate in these securities or hold them for US dollar liquidity purposes.

Government bonds: Sovereign exposures are held by banks for several different purposes primarily linked to the management of their liquidity and their business with clients. The Basel FRTB rules overstate capital requirements for these exposures which could result in reduced liquidity of sovereign debt and increased funding costs for governments.

Disclosures: the industry has noted an increased number of reporting and disclosure requirements which are more stringent than the requirements previously outlined by the BCBS. The industry would recommend that the EU do not front-run the Basel Committee when drafting the recommended future reporting and disclosure standards.

Trading/Banking book boundary: while the industry supports the increased clarity on the distinction between trading and banking books in the Basel standards, the Commission's proposal to further detail⁷ the boundary is expected to bring operational burden for both banks as well as regulators.

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⁷ For larger banks, the proposed products measured at fair value to be included in the trading book by default, will lead to major documentation effort to prove that these products should remain in the banking book. Additionally, this does not align with IFRS9. For smaller banks, the limitation of traders who may only be assigned to one desk hampers the availability of backup traders.