FRTB: Better Get Your Skates On

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FRTB: Better Get Your Skates On

Risk Reward Ltd CEO Dennis Cox pens a critical review of the new BIS FRTB Paper, the challenges banks face in meeting its requirements & notice to get your FRTB project preparatory skates on

If you have been following the approach taken by Risk Reward Limited over recent years to the developing regulatory framework you will see that we have been broadly supportive even when the mathematical techniques applied by the regulators has been at best questionable. We have followed the standardised approach to credit risk which probably reduced the quality of credit risk management. We have followed the operational risk capital calculation and approaches which required unnecessary and pointless analysis of loss data. We have event followed Basel 2.5 which both confuses stress risk and adds figures together which have nothing to do with each other.

In considering the balance of these requirements the increase in requirements for quantitative risk management and governance becomes clear. As a quantitative risk management house we of course welcome this but want the metrics to add value to management, not result in unintended consequences.

Now there is FRTB, the Fundamental Review of the Trading Book. Until this paper all the materials that have been produced by the Bank for International Settlements (BIS) have been intelligible to banks and risk management functions so long as they have at least some quantitative staff. Increasingly it has become difficult to explain these to the Boards, internal audit and control staff. The consequence of this has been that the Board and senior management have limited ability to understand the levers hat impact the production of these figures.

What has become increasingly difficult is not totally impossible with the advent of the Fundamental Review of the Trading Book which changes the calculation of the risk calculation for the trading book including currency risk.

The People

Many banks will not have anyone that can do the calculations or even reading the paper. The problems of Value at Risk (VaR) had been well documented, but most of these have resulted from the BIS using single illogical VaR values as opposed to calculating the area under the curve supplemented by maximum potential loss which is the real basis that should be applied. By replacing a difficult concept with an impossible and illogical concept this time there are significant
problems. Firstly, from our modelling we have doubts that this calculation will properly calculate the capital risk requirements.

Secondly there are often not the people to calculate, assess, view, validate or control this. They just may not exist.

**The Timetable**

Firms have three years to implement these complex rules. The project will commence with conducting a gap analysis and quickly banks will recognise that they will require new systems to populate as well as cleansed data. Do not underestimate this project. From our first reviews three years is likely to be extremely tight so the timetable will likely be extended.

**The Approaches**

There are two main approaches included within the FRTB paper. Probably only a few if any firms will seek to adopt the more advanced approach in the next 10 years. It has a level of complexity that cannot be justified for the limited amount of capital that it is calculating and again; it seems doubtful that it even comes up with a sensible metric. Accordingly, in the rest of this article the focus is purely on the standardised approach. Notice is hereby given it too is not in any way simple.

**Risk Sensitivities**

Even in the standardised approach risk sensitivities need to be calculated. In market risk you tend to think that we have high quality long run data – but do we? The economic cycle of the last 50 years has come to an end and we have been essentially in an interest rate declining environment since 1982. That means that all the data we have is based upon this interest rate declining environment and application to the end of the cycle period as well as the future interest rate rising environment is at best brave. The consequence of this is that firms will need to critically assess the instruments and markets where they require information and try to synthetically design appropriate data. No easy task.

The banks also must calculate delta, vega and curvature sensitivities. At present we have non-normal yield curves as we leave the trend of downward interest rates. The short-term decline in interest rates within the next year will in our opinion promptly reverse leading to the upward interest rate environment and this of course will change yield curves. At present it is not possible to calculate the required curvature sensitivity with any level of precision.

**Scope and Scale of the Change**

Currently there are around 200 – 400 calculations to do for a bank. Under these new rules this moves to perhaps 12,000. That is not our estimate but is a well stablished market estimate. At 200 you may well use Excel or other techniques to do the modelling, relying on manual intervention. At 12,000 you need a system, a thoroughly tested well understood system. Few banks have this.

You will need to reconsider both your treasury and ALCO modelling systems as well as how this interacts with your core banking systems. You will need to validate elements sitting on reconciliations and assess the impact they will have on the capital calculations. This will mean changing both treasury and core systems as well as regulatory reporting. Curvature risk is a completely new calculation and requires recalculation for every instrument.
There is also a requirement to bring this into P&L calculations so changes to management and financial reporting will also ensue.

**Reporting**

A likely scenario is that most banks will need to change the way that they record and hold risk data. At present many firms still think Excel can be used for modelling. This article hopes to make clear that those days are over, if they ever existed. Banks will need to consider the data they have and need in depth and then design flexible data systems to hold this new risk data.

This is coming into force during the interest rate rising environment, an economic climate that is negative and in which non-performing loan rates tend to increase pressuring credit capital. Bringing in a way of calculating market risks which probably will only increase or decrease market risk capital by around 0.20% for most banks seems a rather expensive and unnecessary cost at this stage.

**Getting Ready**

You will need to find your advisors quickly. Given that this is being implemented globally at the same time there will be insufficient advisors to go around hence staff training needs to be promptly acquired and supporting consultants identified. Click [here](#) to view a sample programme to get started

*The author invites comments via email to DWC@riskrewardlimited.com*