

- Julia:** Hello and welcome to this DerivSource podcast.  
**I'm Julia Schieffer, the founder and editor of DerivSource.com**  
**Now, BCBS, or The Basel Committee on Banking Supervision, kicked off this year by publishing the long awaited revised standards for minimum capital requirements for market risk.**  
**Industry participants hope that this is the last chapter of the Fundamental Review of the Trading Book (FRTB), but for many banks the work has just begun in terms of reviewing their operational processes and restructuring trading desks.**  
**In this DerivSource podcast we speak to Zeshan Choudhry, partner at Deloitte and Daniel Mayer a manager in Deloitte's risk advisory business about FRTB revisions and what the impact on derivatives and firms' operational processes will be.**  
**Here is DerivSource reporter, Lynn Strongin Dodds.**
- Lynn:** Hi. We are here to talk about the FRTB with Zeshan Choudhry, partner at Deloitte, and his colleague, Daniel Mayer, manager in Deloitte's risk advisory business. Thank you very much for taking part. Can you please begin with a short introduction of yourself.
- Zeshan:** Hi. This is Zeshan Choudhry, I'm a partner within our risk advisory practice. I'm responsible for financial risk management advice that we provide to our clients.
- Daniel:** Hi, I'm Daniel Mayer, I work on Zeshan's team. I lead the FRTB proposition for Deloitte.
- Lynn:** **The first question really focuses on a brief introduction to the FRTB.**
- Zeshan:** The Fundamental Review of the Trading Book (FRTB) is essentially a fundamental overhaul of the market risk framework. The finalisation of the reforms through the Trading Book regulation was promised by the G20 in the immediate aftermath of the crisis. The intention is for a more coherent set of models, really bringing together Basel 2.5 reforms, and a more standardised and harmonised internal models approach to the more complex risk sensitive approach that all banks must calculate.
- We generally see three intertwined challenges relating to FRTB and these are:
1. Capital impact;
  2. Front-to-Back framework challenges;
  3. Relating to the models, methodology data and IT.
- Lynn:** **What will the revisions mean for trading and derivatives?**
- Zeshan:** From a capital point of view, derivatives will be hit harder than linear products. Complex derivatives will be hit harder than more vanilla ones, and the difference in capital treatment between the internal models and the standardised model is greater for more complex products than it is for more linear, simpler ones.
- From a process point of view, derivatives (complex ones in particular) will find

it harder to pass the desk level tests and may need more effort from finance to pass, as well as tougher IT work. So they are less likely to pass P&L attribution since the Greeks, the measures of risk when taking a trade position in an option, are less likely to capture the full market moves for these products. If they do make it onto internal models, the challenges are liquidity horizons, which are higher for volatility risk factors than for spot prices. This means derivatives tend to be capitalised more punitively, and non-moderable risk factors. Risks, like correlation and volatility, skew where there's not many observable market price points, and will be capitalised more punitively as well.

These derivatives will be hit harder in the internal models, and if they do fail the P&L attribution test (which, as mentioned, they're more likely to do), then on the standardised model these derivatives will get a far, far higher charge. That's the result of lack of diversification benefits between delta and vega risk; the curvature risk charge which could present an implementation challenge for some banks, and has some strange effects. This is particularly so for digital and the residual risk add-on which penalises products if they have, what is called in the rules, 'an exotic underlying'. Whether derivatives are mortality swaps or realised volatility swaps, they are all penalised very hard by the standardised model.

So, overall for derivatives it leads to a higher capital charge and greater framework challenges.

**Lynn: On the operational front, what changes will banks have to make if they have to keep, or want to keep their internal models?**

Daniel: The key here is that in the old world, internal models approval was done across the whole bank, whereas in the new world it's done on a desk-by-desk basis. Really, the operational challenges come from meeting the desk level tests that will maintain internal model approvals. So it's not so much a matter of the bank will be in or out of internal models, but which desks will be in or out. And to pass these tests and P&L attribution there needs to be better links between risk, finance and front office, and links in terms of both governance and data. There are particular challenges around adjustments made by financing, because these can lead to failure if the data isn't fed through to risk and back to front office. There are challenges, particularly for derivatives, around whether full evaluation is needed to pass P&L attribution. Full evaluation is something that some models use, which present greater challenges in IT and implementation, and needs more efficient infrastructure.

There's also the fact that the trading desk structure of the bank itself, needs to be approved by regulators. There is room for banks to choose a desk structure that optimises IMA eligibility performance, but there's also a need for the desk structure to fit with what regulators say they expect - for head traders to have regular risk management reports. There's also a rule that each trader can only be aligned to a single desk.

The operational challenges really come around desk structure and desk level approvals.

**Lynn: Is that the same for the standardised model?**

Daniel: The standardised model is simpler, since there is less chance of failing these desk-level tests. For the desks that do, however, some challenges remain, particularly for smaller banks. Some extra fees will be required for the standardised models. They'll possibly need to provide vega, looking differently to how it looks at the moment. For basket derivatives some banks have found problems in the quantitative impact studies in the preparatory work for the FRTB and will need to implement these now in practice.

The curvature charge in particular requires a bank to bump a risk value and risk factor a position using the front office valuation model. The bump, though, is quite big and could be beyond the range of some models. Your models will need to be able to handle a 70% change in equity price, or 1200 bips change in credit spread as a result. Some IT work is required by the standardised model, but the framework challenge is less than the internal models.

**Lynn: Apart from the models, are there any other operational challenges?**

Daniel: Non-modellable risk factors and P&L attribution are the key other challenges in the rules. For P&L, attribution is the test that allows you to pass and gain internal models approval but it requires the re-pricing used by the VAR model to be very similar to the front office model. In quantitative impact studies conducted so far, many banks would fail P&L attribution for most desks. There's certainly an implementation challenge there, but there's also an organisational challenge of making sure finance, risk and front office communicate with each other, to ensure data quality type adjustments don't get in the way of passing this test.

The other problem for banks is non-modellable risk factors where they need to document how many observable prices go into forming a risk factor time series. You need to know whether your trader marking the volatility skew is marking it based on a real, observed price, or not. This is a real data challenge that some banks still haven't worked out how they're going to meet.

**Lynn: Finally, for those banks that are not prepared, what steps should they be taking now?**

Daniel: I think the first key step is to understand the impact from a regulation perspective and, in terms of financial impact first of all on capital, and then secondly on your infrastructure. By doing a robust capital analysis on the regulation it gives you a good view and insight with regards to what the impact would be on your business. I think that's the first step.

The second would be to take that a step further and understand, from a process and framework perspective, what the rules would mean to the business and to each of the key functions impacted by the regulation. Once banks have a good handle on the size of the task and the effort, they then think about some of the key design considerations. They can then start to plan accordingly, with regards to what effort needs to be undertaken in order to meet and comply with the requirements.

**Lynn: Thank you very much for your time and explaining the FRTB to us.**

Zeshan: Thank you.

Daniel: Thank you.

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# **FRTB Podcast**

March 2016

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**Julia:** Thank you to Zeshan and Daniel from Deloitte for joining us in this podcast.

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