



# How Can the New Market Risk Capital Requirements Be Fixed?

Greg Hopper | Sept. 25, 2023

The new market risk component of the Basel III Endgame, the Fundamental Review of the Trading Book (FRTB), is expected to raise market risk capital requirements significantly. These capital increases are not the result of an increase in the underlying risks of the trading activities of banks but are rather the product of excessive conservatism in the FRTB. The upcoming increase in capital requirements without an accompanying expansion of risk will raise the cost of trading and hedging assets. Since the U.S. economy, unlike Europe's, depends very heavily on capital markets to finance and hedge the risks of businesses, the new capital requirements will disproportionately affect the U.S. economy. Moreover, the FRTB's effects on U.S. markets will be significantly amplified by the Fed stress test, which is not implemented in Europe. In the U.S., therefore, FRTB implementation cannot be separated from the Fed stress test. To avoid damaging the U.S. economy, the Federal Reserve should update the Fed stress test and fix the FRTB in a pragmatic way before U.S. Basel III Endgame implementation.

In principle, the new FRTB market risk capital standard is a justifiable regulatory response to the failure of the previous capital standards to capture the full extent of the market risks experienced by banks during the global financial crisis. It replaces the current Basel II.5 market risk model, which was introduced in the immediate aftermath of the GFC, with a new model that measures large, rare risks more effectively. The FRTB also explicitly accounts for differences in marketability of assets, penalizing assets more harshly if they will be harder to trade in a financial crisis. To address a potential breakdown of diversification during a financial crisis, it also gives less credit for diversification of risks.<sup>1</sup>

Although these enhancements are sensible in principle, in practice, the process of defining the new FRTB produced an extremely complex and overly conservative Rube Goldberg-like capital standard. The Basel Committee took over 10 years to develop the methodology. During that time, an array of committees made the components successively more complicated while building in harsher assumptions at each point. The new methodology introduced stringent new requirements that are hard to satisfy and defined complex tests that are hard to pass. If a bank fails to meet the new requirements or pass the tests, it must determine capital by using a stress test or by employing less risk sensitive but much more punitive standardized formulas. Because of the complexity and severity of the requirements and tests, the FRTB will raise market risk capital requirements of large banks over 60%, and the capital requirements of the largest banks, mostly U.S. financial institutions, by almost 70%. The very large increases in market risk capital cannot be tied to increases in underlying risks, suggesting the FRTB ultimately went too far in its complexity and severity.

Excess severity and complexity in the FRTB will asymmetrically affect U.S. markets. In contrast to European debt markets, which are largely bank financed, 75% of U.S. corporate debt is financed by bonds. U.S. equity markets, at

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<sup>1</sup> For a more thorough exposition of the motivation for the FRTB, see the blog post "Why is the FRTB Expected Shortfall Calculation Designed as it Is?" available at <https://bpi.com/why-is-the-frtb-expected-shortfall-calculation-designed-as-it-is/>

1.7x GDP, are broader and more liquid than EU equity markets, at 0.7x GDP. An increase in market risk capital will raise the cost of debt and equity financing in the U.S. despite there having been no increase in the underlying risks.

The FRTB increases capital indirectly. The FRTB capital standard may be thought of as contributing to the definition of a risk pie. The bigger the pie, the bigger the potential risk of the bank, measured in units of risk-weighted assets (RWA). The capital that must be maintained is defined by separate rules that specify how big a piece of the risk pie, i.e., what percentage of RWA, must be reserved as capital. Under current Basel II.5 rules, at least 8% of the RWA pie must be financed by capital. Upon implementation, the FRTB will make the risk pie larger, and so the 8% pie cut will produce a larger capital requirement.

The global market shock (GMS), the market risk component of the Fed stress test, will amplify the FRTB capital increase not indirectly by increasing the size of the pie but rather directly by making the pie cut larger. The GMS attempts to capture a market meltdown by requiring a bank to stress-test its trading assets by an amount that is much larger than seen in any historical financial crisis. U.S. regulators used the GMS to define an extra cut of the RWA pie, termed the stress capital buffer (SCB). The idea behind the SCB is that a bank's capital should include an extra cut of the pie so that it is sufficient to sustain losses from an extreme market shock similar to the GMS during a financial crisis and still be well-capitalized enough to continue lending. Thus, capitalization of a market meltdown is included in the FRTB, because it makes the RWA pie bigger, but also included in the GMS, because the SCB makes the cut of the pie larger.

Given the uncertainties, it is justifiable to include conservatism when capitalizing the risk of a market meltdown. The problem, however, is that the current Basel III Endgame proposal is to include excessive severity to capture the risk of a market meltdown in the FRTB and then also to impose excessive severity for the same risk—a market meltdown—in the GMS. From a supervisory risk perspective, the GMS would better complement the FRTB if it captured a different risk than the FRTB. Moreover, the EU and the UK do not have a GMS and so are not requiring a larger piece of the RWA pie be financed by capital. To maintain a level playing field for U.S. markets and to make the GMS work better with the FRTB, U.S. regulators should reduce the extreme severity of the GMS and update it to capture different risks. There are many options the Fed could easily employ to reduce the extreme severity of the GMS:<sup>2</sup>

- ▶ Remove private equity from the GMS
- ▶ Do not stress again in the GMS any assets that have already been put into FRTB stress tests
- ▶ Reduce the shocks on investment-grade and high-yield credit assets

To moderate the excessive conservatism and complexity of the FRTB, U.S. regulators could also look for practical adjustments that are at their discretion or are simple changes to parameters or formulas that will not produce knock-on effects elsewhere in the framework. For example, the FRTB has a complex set of statistical tests that must be satisfied. Failure of these tests obligates a bank to switch to a punitive capital formula. The Fed at its discretion could allow banks more time to satisfy those tests without rolling over to punitive standardized formulas, provided banks can demonstrate that the test failures do not indicate fundamental risk management problems. U.S. regulators could also modify FRTB formulas that have arbitrary parameters. For example, the FRTB arbitrarily weights equally a diversified and undiversified calculation. The weighting factor could be easily changed to give more benefits to diversification between assets such as FX rates and interest rates that are more likely to maintain some diversification benefits during a financial crisis.

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<sup>2</sup> For more detail on updating the GMS as well as the pros and cons of the suggested options, see the blog post “How Can the Global Market Shock More Effectively Complement the Fundamental Review of the Trading Book?” available at <https://bpi.com/how-can-the-global-market-shock-more-effectively-complement-the-fundamental-review-of-the-trading-book/>

Proponents of FRTB implementation as planned may argue that the costs to the U.S. economy are worth it to further reduce systemic risk in the U.S. financial system. However, when taken too far, increasing capital requirements will make the U.S. financial system less safe. Banks with robust trading businesses earn additional revenues when market volatility is high, providing a natural risk-reducing buffer during a financial crisis. In addition, unjustified increases in market risk capital become a catch-22: the capital increases damage market liquidity, making the liquidity risks that the FRTB and GMS were designed to control a self-fulfilling prophecy. FRTB implementation should not make banks riskier by discouraging them from having trading businesses.

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