



Fundamental Review of the Trading Book: Internal Models Approach Adoption

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1. EXECUTIVE SUMMARY

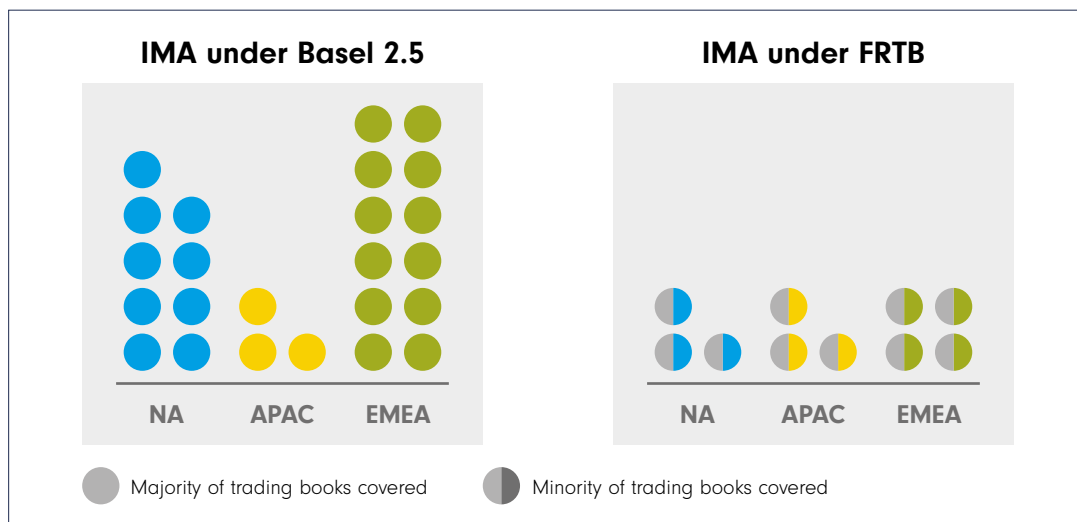
As implementation of the Fundamental Review of the Trading Book (FRTB) standards for market risk capital progresses in jurisdictions around the world, many banks appear to be reducing their use of the internal models approach (IMA)¹.

A significant number of banks that currently use the IMA under the Basel 2.5 framework plan to transition entirely to the standardized approach (SA) under the FRTB. Banks that intend to use the IMA under the FRTB generally only expect to do so for a limited number of trading desks. Several banks plan to adopt the IMA on a phased basis, initially implementing the SA and transitioning to the IMA only once they have made a compelling business case and developed the necessary capabilities for the relevant trading desks.

To understand these trends in more detail, ISDA and Ernst & Young LLP (EY) engaged with FRTB executive sponsors from 26 global banks with trading operations across all major global jurisdictions (Europe, the Middle East and Africa including the UK, North America and Asia Pacific). The discussion focused on the drivers of capital model adoption, bank-specific and broader industry implications of adopting the IMA and the potential steps they believe could be taken to incentivize increased IMA adoption.

The reduced use of internal models was not always expected. During the initial consultation on the FRTB standards in 2012, most banks using the IMA under Basel 2.5 intended to transition to the FRTB-IMA on a like-for-like basis in terms of trading book coverage. Figure 1 presents the evolution of participating banks' use of internal models under Basel 2.5 and the proposed adoption of the FRTB-IMA across major jurisdictions.

Figure 1: IMA transition for banks under Basel 2.5 and the FRTB²
(all transitions to FRTB-IMA are partial)



Banks acknowledged the significant evolution and increased risk sensitivity of the SA under the FRTB, but many noted there is insufficient benefit for them to implement and maintain the IMA, given the significant costs and resources required to do so.

¹ ISDA Responds to Prudential Regulation Authority Consultation on Basel 3.1 Implementation, March 31, 2023, www.isda.org/2023/03/31/isda-responds-to-pra-consultation-on-basel-3-1-implementation

² There were two banks in the cohort of banks interviewed for this paper that use the standardized approach under Basel 2.5

Further challenges noted by banks that have informed their decisions on capital modelling under the FRTB include:

- **Regulatory uncertainty:** As cross-jurisdictional timelines have been extended and diverged, the momentum of FRTB implementation at many banks has slowed down, with resources and funding diverted to other priorities. This has led to a more cautious approach to implementation, focusing on the SA rather than the IMA.
- **Framework complexity and capital volatility:** Methodological complexities of the IMA framework, especially with respect to non-modellable risk factors (NMRFs) and the profit-and-loss (P&L) attribution test (PLAT) make its implementation and maintenance costly relative to its benefits. In particular, the consequences of failing the PLAT have been cited as a major driver of capital volatility and uncertainty. Even if a bank obtains model approval for a specific trading desk, it cannot be definitively sure it will be able to retain that approval because of the instability of the PLAT and its outcomes.
- **Output floor:** Some banks expect to be bound by the Basel III output floor, which would restrict the potential benefit of the IMA at the ‘top of the house’. This is primarily due to large credit risk exposure within the banking book, which consumes the output floor’s capacity. This means any investment in developing the IMA for market risk would have a minimal impact on group capital.
- **Operational challenges:** Banks cited complexities in operationalizing the new market risk framework, particularly for the IMA, given several complex components of the framework. This is in addition to, in most cases, the need to continue to run business-as-usual (BAU) value-at-risk (VaR) for risk management alongside the FRTB-SA across the entire trading book.
- **Overlap with prudent valuation:** Banks noted the double counting of liquidity impacts captured within prudent valuation (PruVal) versus the risk factor eligibility test (RFET) within the FRTB-IMA framework as being a disincentive to invest in developing internal models for capital.

Banks noted the potential broadening of reliance on the internal capital adequacy assessment process (ICAAP) and economic capital and stress testing to assess capital adequacy and manage economic risk under the new regime. However, they also acknowledged the benefits of using internal models.

These benefits include:

- **Diversification of modelling approaches:** A diversity of internal modelling approaches, together with supervision, can lead to improved capital model diversification, modelling improvements and the development of risk modelling best practices across the industry.
- **Benefits for risk management:** While banks indicated they would continue to manage the economic risks of their trading activity irrespective of whether they adopt the IMA or SA under the FRTB, banks adopting the IMA noted they would benefit from greater risk sensitivity and granularity within the IMA framework to better align capital with economic risks.
 - **Risk coverage and sensitivity:** The IMA, by design, has broader risk coverage and granularity, enabling banks to more accurately capture a broader suite of traded risks relative to the more conservatively calibrated SA.
 - **Alignment with economic risks:** Some banks indicated they would continue to use Basel 2.5 VaR for BAU risk management due to its easier interpretability, while others may adopt new metrics leveraging components of the FRTB-IMA.

Banks noted the greater risk sensitivity and granularity of the IMA would also help to maintain the viability of materially affected business lines and/or trading activities and prevent their restructure, closure or migration to less regulated sectors.

- **Attracting and retaining talent within risk:** Banks noted the adoption of the IMA can be helpful in attracting and retaining risk professionals and can mitigate the risk of resources being re-deployed to other parts of the bank or even moving out of the industry.

To enhance the business case for the IMA under the FRTB, banks highlighted several framework modifications that would better align it with the economics and risks associated with market risk exposures.

- **Recalibration to better align with risk management practices**
 - **PLAT:** Adjusting the test design and parameterization would make it more viable for firms to both implement and manage the IMA in BAU circumstances. This could incentivize banks to move more desks onto the IMA. Banks also indicated that making the test an indicative supervisory monitoring tool would remove its impact on capital volatility and create the opportunity to assess whether the proposed tests are fit for purpose.
 - **RFET:** Banks said this is an area that should be reviewed more fully by regulators globally to enable them to continue to use the IMA to capitalize their risks.
 - **NMRF:** Reconsidering the extremity of shocks, diversification and correlation components within the NMRF framework would reduce the overall capital impact and incentivize greater adoption. In particular, banks noted that a greater level of diversification would reduce the effect of this component.
- **Implement a Cap on the FRTB-IMA:** Banks also noted that capping total FRTB capital (IMA and SA) at the level of the FRTB-SA would provide appropriate incentives for them to invest in the FRTB-IMA, while removing the possibility for capital calculated using the IMA to exceed that of the SA.
- **Output floor:** The capital output floor significantly reduces the incentives for some banks to invest in the IMA. A reform of the output floor as it relates to market risk would increase the benefits of investing in the IMA.
- **Minimum coverage:** Relaxation of the minimum threshold for IMA coverage was also suggested to incentivize IMA adoption.
- **Overlap with the PruVal framework:** Banks noted that the PruVal framework should be reviewed to avoid double capitalization of risks and to incentivize adoption of the IMA.

The FRTB-SA was intended to be a credible backstop to the IMA. However, this will now be the primary capital calculation methodology for many banks due to the complexity and operational challenges of implementing and managing the FRTB-IMA.

To incentivize the adoption of the IMA, banks said they would welcome the opportunity to work with regulators to review the unintended consequences of specific components of the FRTB rules for their businesses and make adjustments to the framework. Banks also noted that the unique features of the FRTB – specifically, the PLAT – should be tested. They suggested there should be a period in which PLAT results are evaluated to ensure the design and calibration of the test is fit for purpose, alongside other elements of the broader capital framework.

2. BACKGROUND

The FRTB capital standards are intended to ensure banks are sufficiently capitalized for the risks they take, while reducing the variability of risk-weighted assets (RWAs) across jurisdictions.

Some of the key differences between the FRTB and the existing Basel 2.5 framework are:

- A more prescriptive and stringent boundary between the trading book and the banking book;
- A new IMA that focuses on tail risks and reflects constrained market liquidity during stressed periods;
- Stringent trading desk-level internal model approval processes, including the PLAT;
- A stressed capital add-on for infrequently traded risk factors known as NMRFs; and
- A new SA that balances simplicity with risk sensitivity and explicitly captures default and other residual risks to serve as a credible fallback for the IMA.

As the published timelines for banks to comply with the FRTB draw closer, it has been observed that banks are reducing their use of the IMA for market risk across jurisdictions. Many banks that are or were on the IMA under Basel 2.5 plan to transition entirely to the SA under the FRTB. Furthermore, those banks transitioning from the IMA under Basel 2.5 to the IMA under the FRTB only plan to do so for a very limited portion of the trading book (15-40% under the FRTB compared to an average of 85% under Basel 2.5).

The move away from the IMA appears to be a relatively recent trend. When the FRTB rules were first issued for consultation in 2012, most banks on the IMA under Basel 2.5 intended to transition to the IMA under the FRTB on a like-for-like basis in terms of their trading book coverage. However, as the rules evolved and banks assessed the cost and impact of implementing and operationalizing the IMA, many have scaled back their ambitions and, in many cases, chosen to transition completely to the SA.

Banks that are retaining internal models plan to prioritize the IMA only for selected trading desks where the choice of IMA desk coverage is dependent on the bank's corresponding business activities and infrastructure readiness.

This whitepaper analyzes the drivers for low IMA adoption across the industry. The themes and views presented are based on discussions with executive sponsors across 26 global trading banks. The paper also reflects banks' perspectives on the key advantages of the IMA, alongside their views on the steps that could be taken to incentivize greater IMA adoption.

Section 3 presents a view of the challenges banks are facing with their capital model strategies under the FRTB, at go live and beyond. Section 4 outlines the key benefits of the IMA. Finally, Section 5 addresses the actions regulators could consider to incentivize greater IMA adoption.

3. FRTB CAPITAL MODEL STRATEGY CHALLENGES

All banks noted that the FRTB-SA is a welcome improvement to the current standardized approach, given it is sensitivity-based and covers a broader suite of market risks. As a sensitivity-based approach, the FRTB-SA aligns more closely with business risk management practices and metrics than the standardized approach under Basel 2.5.

For banks that use or used internal models under Basel 2.5, their capital model strategies under the FRTB are varied and, in several cases, not yet fully defined. However, they generally tend to favor the FRTB-SA, at least in the short to medium term.

Many of these banks consider the FRTB-SA to be a simpler, more transparent and more stable capital model. They noted it is less prone to procyclicality and, when combined with economic capital and/or Pillar 2 components, represents an effective capital modelling approach, relative to the IMA.

Key drivers for the preference for the FRTB-SA include:

- Regulatory timeline uncertainty;
- Framework complexity and capital volatility;
- Output floor;
- Operational challenges;
- Model maintenance and ongoing regulatory compliance costs;
- Overlap with PruVal.

3.1 Regulatory Timeline Uncertainty

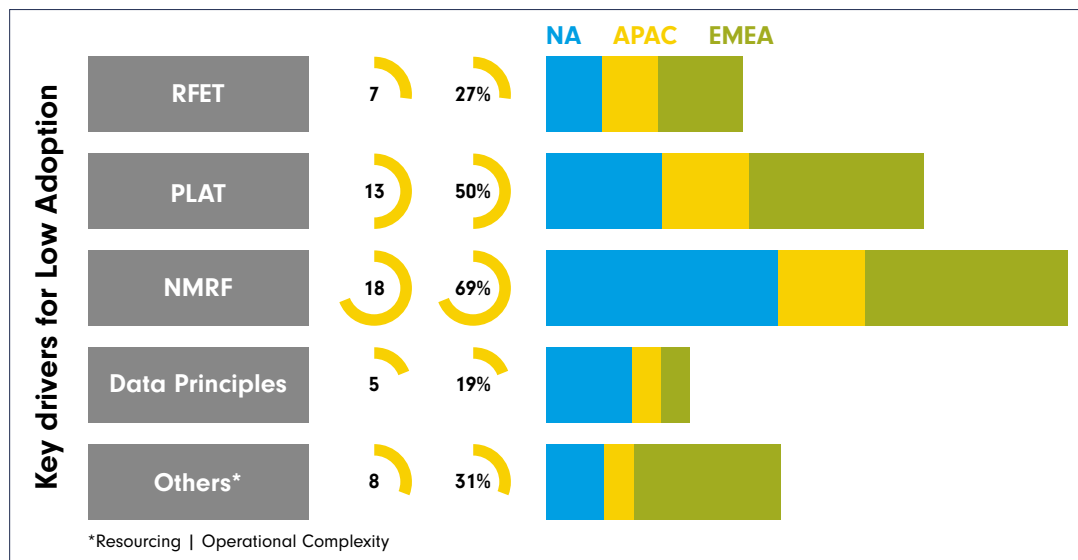
Several of the Basel 2.5 internal model banks were early movers in their FRTB compliance efforts, investing heavily in building foundational FRTB capabilities with the aim of transitioning to the IMA once implemented. These foundational capabilities included transition from sensitivity or grid-based VaR to full revaluation, replacement of Monte Carlo with historical simulation VaR, alignment and rationalization of front-office and risk systems and analytics, and consolidation and cleansing of enterprise data repositories used for risk measurement and management.

However, as timelines extended and diverged across multiple jurisdictions, compliance momentum has slowed, with resources and funding being diverted to other priorities. This has led to a more cautious approach that has focused on adoption of the SA rather than the IMA, pending greater regulatory clarity.

3.2 Framework Complexity and Capital Volatility

Almost all participating banks raised concerns about the complexity of the methodology for the IMA framework that makes its implementation and maintenance costly relative to its benefits and can drive significant capital volatility and uncertainty.

Figure 2: Key drivers of low IMA adoption in terms of core IMA capital components



Banks indicated the RFET calculations are difficult to implement and operationalize. Data challenges include the purchase of historical real-price observation data to perform the calculations, the cost of which is not deemed to be proportionate to the risk. Overall, the capital impact of NMRFs is considered to be disproportionately large and unpredictable.

It was also noted that the extent to which an individual bank can model a given risk factor under the RFET requirements is linked to its access to real-price observation data for that risk factor, rather than the inherent risk of that risk factor. Therefore, two banks with identical exposures, running the same risk, could have different capital outcomes simply due to their access to relevant data.

With respect to the PLAT, even if a bank invests significant time and resources to apply and obtain IMA approval for a given desk(s), it is impossible to reasonably predict its ongoing ability to use its internal model due to the shortcomings and variability of the PLAT. Further challenges were noted in relation to the design of the test, as small differences in granularity, convexity capture or differences in holiday calendars between the hypothetical P&L and risk theoretical P&L may result in failure of the test. In contrast, backtesting is less affected by these minor deviations. In addition, the PLAT was considered particularly difficult to pass for well-hedged vanilla portfolios, which is not a reflection of the quality of the internal model.

The approach to capitalizing NMRFs, alongside the shortcomings of the PLAT approach and impacts of PLAT failure, were seen as core drivers of potential capital volatility and resulting uncertainty.

3.3 Output Floor

The output floor is intended to be applied at a group/top-of-house level across all risk types under Pillar 1. Banks in certain jurisdictions will be constrained by the output floor due to significantly larger credit portfolios relative to their trading footprint, which tends to dominate floor consumption. As a result, the potential benefit from the trading book capital component is generally limited and the benefits of a more sophisticated risk modelling approach are capped. Banks noted that this removes the incentive for them to invest in the IMA, as the return on investment in terms of capital efficiency is generally negligible in the context of the output floor. The output floor is to be phased in for most jurisdictions (eg, over approximately five years in the UK and EU), but there is no phase-in for some jurisdictions such as Canada, making the IMA an even less attractive option.

3.4 Operational Challenges

Banks that opted to apply for the IMA for selected trading books noted that they have continued to face operational challenges relating to certain IMA components, including data, PLAT, expected shortfall (ES) and NMRFs (RFET and stressed expected shortfall (SES)).

This includes aspects such as:

- Establishing a robust operating model and governance framework to deliver the capital calculation outcomes for such a complex framework:
 - Banks will need to establish new processes – ownership, governance, protocols of communications and sign off and internal communications between front office, risk and finance, including at local levels where banks operate across several jurisdictions. This is seen as very complex for the IMA.
- Managing and mitigating desk eligibility performance and desk transition between the IMA and SA on an ongoing basis:
 - This was considered to be very complex, with the need to predict potential PLAT and RFET failure drivers so they can be managed and mitigated before they materialize.
- Transparency of the IMA output:
 - A further operational challenge is the ability to quickly attribute and communicate the drivers of IMA capital to wider organizational stakeholders, due to the complexity of the number in terms of its component parts and their volatile behavior.

3.5 Model Maintenance and Ongoing Regulatory Compliance Costs

Most regulators have raised their expectations on internal model approval standards in recent years and have also defined more detailed and prescriptive model risk requirements. Examples include the Federal Reserve Board's SR11-7³, the Prudential Regulation Authority's SS1/23⁴ and the European Central Bank's guide to internal models⁵.

As such, the cost of developing, maintaining and governing sophisticated models is significant. Moreover, where banks operate in multiple jurisdictions and undertake complex trading activities, the potential use of the IMA is seen as an expensive proposition given the need to satisfy significant individual regulatory requirements and demands on internal models.

³ SR 11-7: Guidance on Model Risk Management, Board of Governors of the Federal Reserve System, April 4, 2011, www.federalreserve.gov/supervisionreg/srletters/sr1107.htm

⁴ SS1/23 – Model risk management principles for banks, Prudential Regulation Authority, May 17, 2023, www.bankofengland.co.uk/prudential-regulation/publication/2023/may/model-risk-management-principles-for-banks-ss

⁵ Guide to internal models, European Central Bank, February 19, 2024, www.bankingsupervision.europa.eu/press/publications/html/ssm.faq_guide_internal_models_2023~f48af4cf68.en.html

3.6 Overlap with PruVal

Some jurisdictions are required to comply with PruVal rules^{6,7}, reflecting uncertainty in the valuation of fair value positions. Additional valuation adjustments (AVAs) are calculated across a range of valuation uncertainty drivers, including market price uncertainty and model risk. AVAs are calculated and applied to fair value positions.

Under the FRTB-IMA requirements, the RFET assesses the liquidity of risk factors and whether they should be capitalized using ES or the very punitive NMRF framework. This overlaps with elements of the PruVal framework, which already applies a capital charge for these positions when there is perceived model risk, illiquidity and/or uncertainty. This double count was highlighted by banks as disincentivizing investment in the IMA.

⁶ Regulatory Technical Standards on prudent valuation, European Banking Authority, www.eba.europa.eu/activities/single-rulebook/regulatory-activities/market-counterparty-and-cva-risk/regulatory-2?version=2014#activity-versions

⁷ Rules Supplementing Article 105 on Standards for Prudential Valuation (previously Regulation (EU) No 2016/101), Prudential Regulation Authority, June 6, 2024, www.prarulebook.co.uk/prarules/trading-book-crr/4-rules-supplementing-article-105-on-standards-for-prudential-valuation-previously-regulation-eu-no/12-06-2024?p=1

4. BENEFITS OF AN INTERNAL MODELS APPROACH

Irrespective of whether they plan to adopt the SA or IMA under the FRTB, most banks acknowledged the benefits of using internal models from the perspective of diversification in modelling practices, BAU risk management and talent attraction and retention.

Benefits of an internal models approach include:

- Diversification in modelling approaches;
- Benefits for risk management:
 - Risk coverage and risk sensitivity;
 - Closer alignment to economic risks.
- Attracting and retaining talent within risk.

4.1 Diversification in Modelling Approaches

Banks noted that a broader level of IMA adoption can lead to the development of best practices and methodology improvements over time due to the diversity of modelling approaches across different market participants.

4.2 Benefits for Risk Management

All banks indicated they would continue to prudently manage the economic risks of their trading activity, irrespective of whether they use the SA or IMA for capitalization. Banks anticipate the continued use of metrics such as VaR and many are considering designing new metrics within their BAU risk management frameworks, excluding the RFET and leveraging IMA components such as a simplified and fully diversified ES and stress scenario-based measures. Banks also noted the potential broadening of reliance on ICAAP/economic capital and stress testing to assess capital adequacy and manage economic risk.

Nevertheless, capital under the IMA was cited as having the potential to be more closely aligned with underlying risks, given the application of more risk-sensitive and granular methodology choices. Furthermore, banks noted that the adoption of the IMA may enhance their ability to continue to competitively service their clients. As such, adoption of the IMA could drive greater capital efficiency and serve to mitigate the risk of certain types of bank activity becoming non-competitive and moving outside the regulatory perimeter.

4.2.1 Risk Coverage and Risk Sensitivity

By design, the FRTB-IMA has a broad, granular risk coverage, enabling banks to capture a comprehensive suite of traded risks such as basis risk, event risk and exotic product risks. Given the materiality of these risks within some bank portfolios, the IMA was considered to have a superior risk estimation accuracy.

Furthermore, the IMA was considered to more accurately reflect unexpected and extreme tail events. This is due to the transition to ES under the FRTB-IMA and the ability to recalibrate elements of the model to current market volatility and correlation data, in contrast to the FRTB-SA, which is simpler but calibrated to deliver a more conservative outcome.

4.2.2 Closer Alignment to Economic Risks

In general, banks on internal models under Basel 2.5 have close alignment between their capital and internal BAU risk management models for market risk. Capital metrics like VaR, stressed VaR and the incremental risk charge are typically incorporated into BAU risk management, including for daily limit and risk appetite setting, and monitoring. Furthermore, banks have invested significantly in their internal model frameworks under Basel 2.5, both to improve risk capture and risk management and in response to regulatory requirements.

Under the FRTB, banks indicated that the IMA has the potential to be more closely aligned with underlying market risks, given the application of more risk-sensitive and granular methodology choices. However, a divergence between capital and BAU risks was anticipated. Due to the complexities of the building blocks of the FRTB-IMA, which include ES (with a mix of partial and full diversification), variable liquidity horizons, SES for NMRFs and the interaction with portfolios covered by SA, it may be challenging to interpret aggregated IMA capital values and changes over time in simple economic terms.

4.3 Attracting and Retaining Talent within Risk

The IMA-related modelling practices within leading banks have evolved over the years into sophisticated approaches for the development and implementation of complex risk measurement and management models and methodologies. These require a highly quantitative skillset, product and risk innovation knowledge and capabilities, and broad problem-solving skills.

Some banks noted that the adoption of the IMA would help bank risk functions to retain this talent and knowledge and mitigate the risk of key resources being redeployed to other parts of the bank, or outside the bank altogether to industries such as technology firms, fintechs and artificial intelligence start-ups.

5. INCENTIVIZING IMA ADOPTION

Considering the drivers and impacts of reduced IMA adoption, banks highlighted several framework modifications that could materially enhance the business case for internal models under the FRTB.

IMA adoption could be incentivized in the following ways:

- Recalibrate to better align with risk management practices;
- Reform of the output floor as it relates to market risk;
- Implement a cap on the FRTB-IMA;
- Minimum desk coverage;
- Avoid overlap with the PruVal framework.

5.1 Recalibrate to Better Align with Risk Management Practices

Banks cited complexity, capital volatility and uncertainty as their key reservations in adopting the FRTB-IMA.

5.1.1 P&L Attribution Test

The PLAT, which is designed to identify misalignment of P&L between the front office and risk function, is one of the principal drivers of anticipated capital volatility.

While most firms acknowledged that the principle of the test is sound, they noted it is difficult to pass and operationally complex to manage in BAU circumstances. In addition, banks cited the need to ensure P&L adjustments, risk and front-office calculation engines and timings are very closely aligned to maximize the probability of passing the test.

While the PLAT attempts to overcome one limitation of backtesting by measuring both the underestimation and overestimation of risk by a bank's model, it introduces a potentially more significant limitation by testing the risk model over the entire P&L distribution. For example, the test can be considered to reward a bank's risk model for more accurately predicting small P&L gains or losses on days with relatively benign market moves, as may be the case in the Kolmogorov-Smirnov test, while the main objective function of the model should be the accurate prediction of extreme losses during large market shocks.

Under this construct, the PLAT results for a well-hedged vanilla portfolio may lead to test failures. With no regulatory override capability, this may result in very unstable capital outcomes for otherwise largely low-risk portfolios.

The excessive volatility in capital requirements that the PLAT introduces does not provide appropriate incentives for banks to implement the FRTB-IMA. Banks therefore indicated that converting the PLAT to an entirely qualitative requirement used for supervisory monitoring would create an opportunity for supervisors to assess whether the proposed tests are fit for purpose, and whether it is possible to calibrate reasonable and meaningful thresholds for these tests.

5.1.2 Risk Factor Eligibility Test

Another consistent challenge cited by banks was the RFET, which assesses whether a risk factor within the IMA framework is deemed modellable. While regulators have made several revisions to the RFET, the test remains onerous for banks as the rule specifications and mapping logic are complex, and it is challenging and costly to obtain sufficient real-price observations to evidence modellability across trading portfolios.

The challenge of passing the RFET was highlighted as a barrier for firms to apply for IMA approval. Banks said this is an area that should be reviewed more fully by global regulators to support their adoption of the IMA.

5.1.3 Non-modellable Risk Factors

Banks cited NMRFs as one of the most punitive drivers of increased capital within the IMA. Given the extremity of the shocks applied for SES calculations, and the lack of permissible diversification benefits, the resulting capital/RWA charge under the NMRF framework is punitive and significantly increases capital requirements under the IMA. Banks highlighted the limited diversification as part of the SES calculations as an area that should be revisited by global regulators to help incentivize IMA adoption.

A number of banks also cited the current design of the NMRF framework as being less useful in terms of BAU risk management as they do not feel the lack of real-price observation data necessarily implies an inability to model potential loss. Furthermore, the industry had expected vendors to provide broader compliance solutions based on data pooling that would make RFET easier to calculate and pass. However, they noted these have not materialized as originally expected.

From an individual bank perspective, large-scale investment is generally required to collect real price data from different sources, standardize it, design the RFET according to jurisdictional specifications and feed the outputs into capital calculations. Overall, this investment was considered to surpass its perceived benefits.

5.2 Reform of the Output Floor as it Relates to Market Risk

Banks noted the existence of the output floor calculated at the group/top-of-house level limits the benefits of IMA-based capital/RWA. This is especially the case for banks with large credit risk exposure, which generally dominates and consumes output floor capacity. Furthermore, while the current value of 72.5% will be phased in for most jurisdictions through to 2030, the entire floor will be applicable from implementation for others.

Banks noted that a reform of the output floor as it relates to market risk would help to incentivize broader IMA adoption for affected banks.

5.3 Implement a Cap on the FRTB-IMA

Banks noted the significant operational complexities presented by the FRTB-IMA would, in many cases, either introduce excessive capital volatility or further increase capital requirements in a manner that would be inconsistent with the underlying risks. This was noted as a disincentive for banks to implement the IMA. Banks suggested that regulators should consider an overall cap for banks applying for IMA at the level of the FRTB-SA to provide appropriate incentives to invest in internal models.

Furthermore, banks noted that capping the IMA would mitigate some of the risk of extreme capital outcomes that are not aligned with the underlying economics.

5.4 Relax or Remove Minimum Desk Coverage

Most jurisdictions have defined a minimum threshold of desks on IMA to maintain model approval. In most cases, the threshold is 10%, but it is as high as 50% in some jurisdictions, which disincentivizes IMA adoption given the high costs of implementation and maintenance. Moreover, where banks drop below the threshold and are required to transition to the SA – for instance, due to RFET or PLAT failures – they noted this would be a material operational challenge, alongside a potentially significant immediate capital uplift. Banks suggested that relaxation or removal of such thresholds would be a welcome incentive to adopt the IMA.

5.5 Avoid Overlap with the PruVal Framework

Banks noted an overlap in capital requirements between the composition of PruVal standards^{8,9}, which exist in some jurisdictions, and the new Pillar 1 FRTB framework. This is driven by the double counting of liquidity impacts captured within PruVal versus RFET.

Banks noted that this overlap exacerbates the significant increase in the new Pillar 1 FRTB-IMA capital requirements and that a recalibration of the PruVal framework to mitigate and remove the overlap would incentivize further IMA adoption.

⁸ Regulatory Technical Standards on prudent valuation, European Banking Authority, www.eba.europa.eu/activities/single-rulebook/regulatory-activities/market-counterparty-and-cva-risk/regulatory-2?version=2014#activity-versions

⁹ Rules Supplementing Article 105 on Standards for Prudential Valuation (previously Regulation (EU) No 2016/101), Prudential Regulation Authority, June 6, 2024, www.prarulebook.co.uk/prarules/trading-book-crr/4-rules-supplementing-article-105-on-standards-for-prudential-valuation-previously-regulation-eu-no/12-06-2024?p=1

6. CONCLUSION

Following the global financial crisis of 2008-09, regulators developed a more robust and risk-sensitive capital framework. In recent years, the proposed FRTB capital standards have undergone several consultations and quantitative impact studies. This has resulted in a comprehensive yet technically complex and costly market risk capital framework.

Both the proposed FRTB-SA and FRTB-IMA requirements are more stringent and generally more sophisticated relative to the current Basel 2.5 standards. For most banks that are contemplating adopting the IMA, the investment required to comply with the baseline requirements and maintain ongoing approval is prohibitively high relative to its benefits. The adoption of the IMA is therefore expected to be minimal among trading banks, including global systemically important banks that have historically invested heavily in developing sophisticated internal capital models for market risk.

Irrespective of whether they plan to adopt the SA or IMA under the FRTB, most banks acknowledged that they will continue to use internal models for market risk management. The benefits of doing so include diversification of modelling approaches, mitigation of business risks, achieving better risk coverage and sensitivity, closer alignment with economic risks, and attracting and retaining talent within the risk function. These outcomes were noted as aligning with the original objectives of the Basel Committee on Banking Supervision in reviewing the market risk capital framework.

Banks suggested that to incentivize broader adoption of the IMA, the framework should be simplified. For instance, they suggested components such as the PLAT and NMRFs (RFET and SES) should be revisited to review their design and purpose and the extent to which they directly drive material and volatile capital outcomes. Banks noted that the stringency of the PLAT and the capital implications and volatility resulting from test failure make it very costly and impractical to build and manage. For NMRFs, banks raised broad concerns over the design of the framework, which is not deemed to accurately reflect risk factor modellability and results in very punitive capital impacts based on unrealistic stressed market moves in many cases.

In addition, to mitigate excessive volatility in capital requirements that would be inconsistent with applicable risks, banks suggested that FRTB-IMA capital could be capped at the FRTB-SA to provide appropriate incentives to develop IMA capabilities.

Furthermore, the output floor applicable for most banks at group level heavily constrains the benefits of adopting the IMA, particularly if banks hold large credit portfolios. Banks noted that given the required investment to implement and maintain the IMA, consideration should be given to reforming the output floor as it relates to market risk, which would drive a greater incentive to invest in the development of internal models.

Moreover, banks noted that greater flexibility on desk definition and the minimum number of desks permissible to use the IMA would be beneficial for the industry to manage the already heavy operational burden of the IMA framework. This would also prevent volatility in capital outcomes resulting from desks entering and exiting the IMA perimeter.

In general, banks suggested that global regulators should consider reviewing and recalibrating certain components of the FRTB-IMA and broader capital framework, as documented in this paper, to incentivize greater IMA adoption across the industry.

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