



CRITICAL THINKING AT THE CRITICAL TIME™

The Model Question: Internal or Standardised?

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Whether to pursue approval for internal models or adopt the standardised approach proposed by regulators is one of the key conundrums for banks today, particularly the major players in OTC markets. It's a decision with major implications for business processes, conduct and costs. In this article, Bruno Campana, managing director at FTI Consulting, considers some of the most pressing questions that flow from this debate.

Why opt for IMM (internal model method) approval instead of relying on standardised approaches?

Regulators scrutinise capital, transparency and consistency of reporting across the industry. Investors focus on returns on capital, but also board statements on banks' risk appetites and resulting management actions to ensure strategic consistency and clarity on key performance indicators. Clearly, institutions with potentially expensive businesses from a standard capital modelling standpoint will benefit from implementing IMMs, but this is not without costs.

In this context, decisions about IMMs are strategic, particularly for banks running global operations and/or those dealing with a substantial volume of bilateral OTC (over-the-counter) trading activity.

In the long run, the reality of regulatory requirements, structure of OTC markets and shape of industry competition might bring some convergence between IMMs and advanced approaches, particularly for market and credit risk, but in the short term IMMs can be a valuable, although sometimes expensive option. Standardised approaches have their own costs and limitations, and require substantial changes in processes and operations.

For example, under Basel III the standardised approach for counterparty credit risk (SA-CCR) replaces both the current exposure method (CEM) and the standardised method (SM) in the Basel II capital framework. One of the drawbacks of this approach is supervisory add-on and correlations are constant factors, so do not recognise specific historical, expected or market-implied volatilities and co-dependencies. Beyond its technical limitations, SA-CCR involves substantial implementation costs. Furthermore, it might not capture the

more sophisticated risks of some banks and they could well decide to embark on the IMM approval journey.

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What are the practical organisational challenges when seeking approval for IMMs for first, second and third lines of defence?

Since the financial crisis, regulators have become less open to IMMs, often viewing them as black boxes. Helping them understand the recipe of an IMM is fundamental for getting approvals.

Obtaining IMM approval requires substantial changes in processes and models, often at relatively high costs. Multiple steps are required to gain IMM approval. Most important is the ability for operations to demonstrate adaptability to more complex processes and quantitative models, not to mention regulator post-implementation back-test or stress-tests.

Demonstrating a clear understanding of a model's functionalities and limitations, computational costs and assumptions are the keys to a successful implementation. But these alone are not enough. Technology, data availability and quality, and efficient governance of processes and policies are also drivers of success. Outsourcing is often a wiser move than in-house development and implementation, particularly when it comes to costs, uncertainty and project management risk. The human factor and key man risk are the most important causes of projects' failure.

There are numerous competing software solutions available which can be tailored to compute banks' various risk measures at transactions or risk class levels. These can connect across an organisation and distribute the information relevant to each

desk from front to back office and in accordance with the institution's risk mandate and appetite. Proving able to quickly reconcile information at various levels and functions is vital during this period.

Regulators expect organisations to demonstrate consistency of vision across risk management, compliance, group audit, governance, conduct, accounting and trading, etc. The quality of information reported to senior management is pivotal. For this reason, regulators are generally very closely involved throughout the implementation of IMMs. Approval is a long process, not only because of the development and implementation phases but also because models must be tested for one year before they can be used for reporting under Pillar III.

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What are the implications of seeking approval and using IMMs for risk budgeting decisions?

Obtaining IMM approval indicates a bank's risk budgeting and risk management has become more sophisticated. A bank's model is typically approved when regulators are comfortable it improves the institution's understanding of risks and how they are being or need to be managed.

A bank using IMMs should expect repercussions on how business is conducted, particularly with respect to managing counterparty risk (for banks reporting both under IMM and CEM), and margining on OTC derivatives. They should expect to align internal policies with strategic decisions on capital at risk. IMMs may allow a more transparent and efficient reporting to senior management (i.e. allow a more tailored approach for key exposures). This is very relevant for risk management and approvals of unusual, illiquid or complex transactions for

which standard regulatory capital assessment is a challenge.

Nothing is granted from obtaining IMM approval, there are numerous maintenance and compliance requirements post-implementation. Banks should expect regulators to monitor the framework for IMMs closely. Risk budgeting is often a key focus for regulators, particularly from a governance and trading standpoint. Banks must ensure traders' incentives are in line with the risk limits budgeted for their roles and, more importantly, that trading desks operate in a controlled risk environment with flags and management actions where risk limits are breached. Reconciliation between IMMs and risk frameworks is essential.

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What are the benefits and limitations of running CVA (credit value adjustment) desks?

CVA may increase capital charges, particularly on OTC derivatives. Banks can (under advanced and standardised approaches) reduce CVA exposures via credit derivatives such as CDS (credit default swaps). "Tranched" or nth to default CDS, for example, are not eligible for CVA capital relief.

Running a CVA desk to then hedge away CVA charges can help, but only manage a certain amount of credit risk. Lack of data or proxies can limit its benefits. So decisions on whether to use a CVA desk or not mostly depend on the nature and size of a bank's business, flow of financial instruments and derivatives, services and counterparties. A bank must also decide whether it will operate a CVA risk on the basis risk neutral probabilities (implied from CDS prices) and/or real world probabilities (e.g. obtaining probability of default measures based on internal or external ratings). This will often inform strategic decisions on the extent to which a CVA desk is helpful and how to organise it. CVA desks often operate at a book level, on the basis of implied probabilities complemented by some long-term, real world adjustment depending on the nature of a book or particular position in that book.



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The emergence of new instruments such as recovery locks – contracts where the parties agree to exchange the initially fixed recovery rate and actual recovery rate in a default event – can also help define the scope of CVA desks (i.e. hedging recovery or default, or both, via combinations of fixed recovery and standard swaps).

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Are CCPs a substitute for CVA desks?

CCPs (central counterparty clearing houses) are considered as negligible CCR from a capital standpoint. Therefore transactions with CCPs typically have little to no impact on CVA capital charges. Quantifying and actively managing CCR remains important for institutions with major exposures to OTC markets or banks not systematically trading through CCPs. Banks dealing OTC derivatives on a bilateral basis and through a CCP should also be concerned about contagion risk not only from other banks, but also from institutions that could be overexposed to a CCP, or from the CCP itself. For example:

Regarding CCPs, some banks try to quantify their exposure to CCPs, although this is very complex and such assessments tend to rely on fundamentally conservative assumptions about the quality of a CCP’s risk management (i.e. default risk, resolution and recovery).

Regarding counterparty risk, debt value adjustment perfectly illustrates the perverse effects of credit quality deterioration. Viewing CCPs as a substitute for CVA desks would be oversimplistic.

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