Insight

Chartis

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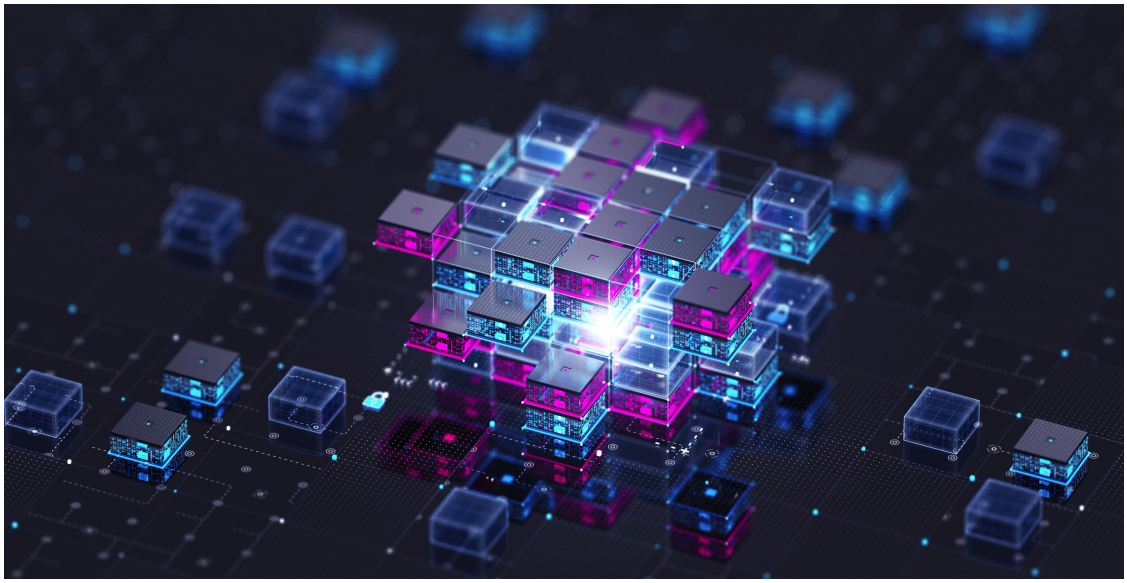
What's Driving the ALM Resurgence? Key Differentiators and Core Analytics



A collaborative paper by Chartis and Wolters Kluwer

Introduction

Asset and liability management (ALM) has always been a core element of banks' operating behavior. Now, however, it is undergoing a shift, adopting more advanced technology and responding to a much broader mandate. In this paper, we examine the drivers and characteristics of a modern ALM framework or platform, although what constitutes 'modern' depends on the lens of the user.

Expectations for what a 'modern' ALM function can or should achieve have evolved significantly. ALM is expanding beyond managing interest rate gaps, duration mismatches and reporting requirements to become a strategy-focused decision support and performance analysis framework. Increasingly, its focus is on aligning a bank's risk profile with its strategic risk appetite. Modern systems now integrate credit spreads, funding risk, behavioral assumptions and forward-looking cash flow analytics more dynamically.

The drivers of this change include an evolving market environment and the growing availability of suitable tools and techniques. While persistent macroeconomic volatility and market conditions remain foundational, the current resurgence in ALM is also being driven by increasing credit complexity, deteriorating credit quality and more fragmented funding markets in some geographies/sectors. Institutions now face growing credit exposure across sectors, prompting the need for more integrated models capable of reflecting repayment delays, declining counterparties and shifting market prices.

ALM's expanding mandate

The ALM function has always resembled a jigsaw puzzle. 'ALM analytics' is largely a grab bag or mix of analytics and complex sets of quantitative disciplines with diverse but related requirements. In recent times, however, there has been a significant expansion of the mandate of the ALM function. Several factors have contributed to this, including:

- Increasing uncertainty and market volatility.
- Severe economic shifts in specific sectors.
- Adjustments – often controversial – caused by government policies.
- Less predictable consumer attitudes.
- Rapid shifts in market structure (specifically major structural shifts in the credit provisioning ecosystem).
- A rapidly growing range of available tools and techniques.

Consequently, there has been a strong resurgence of ALM as both an art and a science, led by the following dynamics:

- ALM is evolving from addressing basic interest rates, durational mismatches and simple reporting requirements to a more strategic decision-support capability. It is increasingly becoming a framework that underpins the processes by which banks define their risk appetite and strategy.
- This mandate is increasingly directed toward integrating whole credit loss and credit dynamics. Examining credit loss and evolving credit dynamics, and analyzing their impact with stress testing, scenario analysis and simulation, are core activities for banks (and for many non-banks that increasingly are taking on more central roles in the credit provision landscape).
- By integrating credit loss elements with embedded options and liquidity planning, institutions can perform risk analytics on the current balance sheet and also on possible future/forecast balance sheets. Among other elements, this involves forecasting the performance of different business lines by individuals in the front office and treasury department.
- The range of available toolsets is evolving, and analytics are becoming increasingly sophisticated. A broader range of tools is now available in such areas as reverse stress testing, while other, more well-established approaches (such as stress testing and simulation) have become more flexible and accessible. Moreover, increasingly sophisticated analytics are now more computationally efficient (incorporating, for example, the cloud and analytical optimization).
- In the area of behavioral modeling tools, in particular, we have seen greater use of a broad set of statistical tools, including nonlinear heuristics. These can take disaggregated retail behavior and aggregate it appropriately to align wholesale dynamics in the balance sheet. For most retail-focused institutions, aligning retail products with the wholesale side of the balance sheet is a complex art that requires aggregation of the retail products. Many retail products, however, have complex embedded optionality that's difficult to model and value.

Managing credit exposures

The shift that is having the most impact – and that might be considered the 'elephant in the room' – is the challenge firms have in managing their credit exposure and integrating this process into their overall ALM and balance sheet management strategy. Credit risk is, after all, the single largest exposure for most banks. The one element that banks of all sizes and structures have in common is the need to model, manage and control their credit exposure.

In addition to the relatively straightforward exposure generated from their loan books, banks must also address their exposure to other areas, including collateralized credit (and the dynamics of collateral), market-linked credit (such as margin exposures and PFE), guarantees and synthetic risk transfers. Many of these challenges are amplified by the growth of non-banking credit institutions. These introduce not only competition but also new ways and approaches for looking at credit dynamics (including nonstandard covenants, differing duration and differing liability profiles against which these assets must be matched).

For banks of all sizes and business models, achieving reasonable control of their credit exposure in an ALM context involves ensuring that they can model their credit exposure and correlations with scenario-based simulations and stress tests (stress testing and reverse stress testing to gauge the appropriate conditions that may drive specific outcomes). Equally, firms should not just consider the impact of credit but also how the co-evolution of interest rates and credit exposures can and should be embedded into ALM and funding cost management frameworks. Indeed, banks can discover surprising effects from correlations between risk classes and seemingly unrelated portfolios: reducing the risk locally can sometimes increase it on a more global scale.

The key differentiators of modern ALM

The modern ALM function is much more ambitious, aiming to simulate profitability analysis, enable sophisticated stress testing across various elements and employ performance analytics for business lines, portfolios, individuals and teams. Some of these capabilities are still aspirations, and no single ALM platform has them all. Still, these are vital goals on banks' route to an integrated strategic platform. To recap, a modern ALM system must provide:

- Real-time, data-driven forecasting, dynamic hedging and balance sheet strategy support.
- Complex analytical strategies to support multi-dimensional optimization, balance interest rate, credit and liquidity risks, and align with long-term targets (such as regulatory liquidity ratios, capital efficiency and business-line profitability).
- Credit analytics integration to embed credit spread movements, credit exposure and funding costs into firms' ALM strategies. One critical aspect of ALM in this context is managing credit exposure and the exposure of embedded products to ensure they are properly considered.
- Integration of behavioral assumptions, including deposit stickiness, loan prepayment and drawdown behavior. While progress in modeling retail behavior has been accelerated, major structural gaps and significant differences remain between institutional best practice and 'business as usual'. Still, the state of the art has been advancing rapidly. Models can now simulate stress testing and analyze the risk of embedded options in the balance sheet, standard loans and standard deposits in both the retail and wholesale sectors.
- Scenarios, stress testing and simulation, and profitability analysis, using scenario-based ALM models to evaluate risk-adjusted returns, funding impacts, the cost of capital and business-line performance.
- Improved optimization. Although full system optimization remains out of reach, many firms are focusing on manageable subsets, using better-performing technology and soft computing approaches.

Conclusion: ALM as a strategic decisioning control function

For financial institutions, risk-adjusted business planning is a complex mandate. Being able to link business strategy with risk profile and risk appetite, in the context of evolving interest rates and credit markets, is demanding.

There is strong demand for high-level, cross-functional planning that integrates a wide variety of risks into funding, profitability and strategic positioning. Achieving this, however, is easier said than done. There is also a widespread expectation that financial institutions should be able to connect financial planning with a range of drivers beyond market conditions and regulatory expectations, and into sustainability objectives and other operational risks. Quantitative adjustment, however, is a far bigger challenge.

The most important driver in moving from ALM to risk-adjusted business planning is having the core infrastructure in place. This enables more flexible qualification modeling to inject such elements as climate transition risk into the framework. Ensuring a clearly structured framework to incorporate these risks into a firm's risk appetite and overall business plan is crucial.

To conclude, Chartis' view is that the ALM function is evolving toward a more strategic role, driven not only by structural shifts in market structure but also by increasing volatility in the market, as well as the need to create a risk-adjusted view of a firm's overall banking business strategy. Long seen as primarily a regulatory and reporting function, ALM is becoming a strategic capability that requires institutions to manage internal correlations across market risk, credit risk, capital and liquidity.

In achieving this, institutions are evolving at different rates. However, we believe that those that embed credit risk, cost of capital and funding volatility into their ALM frameworks will be best positioned to manage stress, allocate capital effectively and protect their earnings. And as credit markets change and restructure, with non-banks becoming more important in the credit value chain (whether retail or wholesale) and the structure of credit markets becoming increasingly fragmented and regionalized, credit-aware, analytically rich ALM will be essential. Indeed, an ability to integrate credit-focused stress testing/scenario management may be the most important element of all.