finarch

Finarch masterclass

FinArch is a market leader in integrated Risk and Finance solutions. Here, the firm's Head of Risk and Capital Management, Nancy Masschelein, and Chief Commercial Officer, Nigel Lee, address your questions on managing liquidity in an integrated risk return management framework.

NANCY MASSCHELEIN, HEAD OF RISK AND CAPITAL MANAGEMENT, FINARCH

NIGEL LEE, CHIEF COMMERCIAL OFFICER, FINARCH

Nancy Masschelein: The recent crisis has demonstrated the need for a solid liquidity risk measurement and management system. In fact, this should be central to a bank's integrated risk management framework. Such a framework should provide them with a common data architecture in which to store, manage and enrich data from all parts of the business. This common data architecture is essential if banks wish to maximise their return. In this respect, we should even speak of a common uniform 'risk return measurement framework'. Central to the framework should be the calculation of not only liquidity risk, but also other risk types such as credit risk, market risk, operational risk…. It should even move beyond that: a solid framework should support both regulatory and internal risk calculations, such as Economic Capital calculations. And, in order to be fully efficient, the measurement of liquidity risk and other all risks is should be supported by a uniform Cash Flow Engine and a Fair Value Engine.

Such a framework should also cover aggregation functionality allowing aggregation of risks taking account diversification benefits and allowing to analyse the interconnection between different risk types. A Simulation Engine and Analysis Engine should work in parallel with all risk types, not just liquidity risk.

In addition, to be able to speak of a company-wide encompassing risk return framework, it should provide comprehensive functionality for Fund Transfer Pricing ('FTP'). Only then, bankers will gain a profound understanding of the sources of profitability and Risk Adjusted Performance measurement. FinArch has built such a complete 'risk return measurement framework', fully tailored to the specifics of the banking sector. FinArch's Risk Return Framework is part of Financial Studio ('FinStudio'), the leading solution for integrated reporting, risk and finance software for the financial services industry. We have already seen that our clients that have finished implementing this framework - some of them are leading international banks – really have a deeper insight in all their risks, and, as a result, are able to make well-grounded decisions.

HOW IMPORTANT ARE BANKING RELATIONSHIPS TO AVOID ANOTHER GLOBAL MELTDOWN AND HOW CAN FINARCH HELP WITH THIS?

Nigel Lee: Banking relationships are fundamental to avoiding any crisis in the financial markets. The fortunes of one institution can very often depend on the fortunes of another. This is called 'interconnectedness'. The global regulatory framework is driving towards transparency across markets and therefore the international nature of the market, the European Commission and the G20 both make grand promises to address the issue of 'interconnectedness' through regulations in and around regulatory capital, liquidity and International Financial Reporting Standards. However, this is not working.

It is therefore up to the individual institution to deploy best practice at a firm level in order to avoid financial

crisis. FinArch can help here, as I will explain in a moment.

The management of interconnectedness is not working from a regulatory stand point because of the lack of willingness on the part of national regulators and national administrations to embrace certain regulatory regimes, namely Basel II, Liquidity Risk Reporting and IFRS. This is particularly the case when one considers the USA. It is rather unfortunate then to observe that global interconnectedness with USA based institutions was a significant contributory factor in the cause and effect of the most recent crisis.

Banks, by themselves, must employ a powerful simulation engine in order to assess the risks of interconnectedness. Effective stress testing of all risk measures across a unified simulation framework should be employed in order to understand and manage the outcome of all possible scenarios. Such a framework must facilitate the stressing of individual risk measures as well as providing a comprehensive aggregation and allocation capability. Such value is provided by Financial Architects Risk Return Framework. Such a powerful tool will enable institutions to 'stress' the effects of interconnectedness by simulating a variety of different factors, e.g. the ratings downgrade of certain counterparties, the defaulting of certain institutions or even nations. Furthermore, it is crucial to simulate beyond the bounds of reasonable possibility.

The Financial Studio Simulation Engine takes away 'anecdotal' measurement of risk, the 'Lehmans is a safe bet' attitude that was neither proven nor effectively measured. It replaces 'expert opinion' and 'self assessment' approaches popular with uninformed risk management with sound quantitative analysis.

HOW IMPORTANT IS MEASURING VARIOUS LIQUIDITY RISK MEASURES?

Nancy Masschelein: The current financial crisis is no different than the banking crises which occurred in the past. Each of them has highlighted the crucial role of funding liquidity. In all of them, the central banks around the world had to come to rescue. Not surprisingly, recent regulations introduced by Basel, the UK Financial Services Authority and the US regulators have all focused on the importance of establishing a robust quantitative liquidity risk management framework. And, the centre piece of a quantitative liquidity risk measurement framework is indeed the gap analysis. Through the gap analysis, the liquidity surplus or shortfall for each observed projection period is shown, for instance each individual day, or on individual reference dates which can be reporting over one week, one month or even one year. Cash inflows and outflows are compared according to their respective contractual maturities. In addition to a "business as usual scenario", all banks forecast a liquidity gap under certain stress conditions (for more details see question 4.). On the basis of this quantitative analysis, firms are required to set liquidity risk tolerance levels and to maintain adequate levels of liquidity through a cushion of liquid assets. In addition to this deterministic analysis, some institutions use FinStudio stochastic models, which estimate the expected net payment requirement, which will, with a given probability, not be exceeded, based on historical surpluses from a bank's autonomous payments.

WHAT ROLE DOES STRESS TESTING PLAY WITHIN THE LIQUIDITY RISK ENVIRONMENT?

Nancy Masschelein: Actually, a very central role. Stress testing and scenario analysis is far more important for liquidity risk measurement and management than for credit risk, market risk or operational risk. Different banking institutions have different needs for liquidity. The range of potential risk scenarios is far more varied for liquidity risk than for other risk types. Both the depth and the characteristics of a liquidity event vary by scenario. Also, management actions that work in some scenarios are often constrained and sometimes unavailable in others. In recent months, many institutions have begun to review their stress testing and scenario analysis capabilities in order to ensure they have the ability to model variety firm institution-specific and market-wide stress scenarios. In fact, we see an increase in banks requesting us to assess the potential impact of stress scenarios their liquidity, earnings and solvency positions. And the focus is clearly shifting from siloed risk-based analysis to integrated stress-testing capabilities across all types of risks.

We also see that regulators are currently having difficulties with the appropriate approaches to guidance for stress testing. In many cases, they merely point to the guidance provided by the Basel Committee on Banking Supervision in its paper, Principles for Sound Liquidity Risk Management and Supervision, as well as the paper it issued in January 2009, Principles of Sound Stress Testing Practices and Supervision. We have been able to assist many banks in these matters as FinStudio's simulation engine allows banks to run the same scenarios on all risk types taking account of diversification effect.

WHAT IS THE FUTURE OF THE LIQUIDITY RISK LANDSCAPE AND WHAT CHANGES COULD BE MADE FOR THE BETTER?

Nigel Lee: The future of the Liquidity Risk landscape is a simple tale. It has to be uniformly and universally adopted as part of a globalised approach to effective risk management. Fundamental is the necessity to stress the results of Liquidity Risk calculations (in fact all risk measures for that matter). This is a key element of the recent emphasis on Liquidity Risk from the European Commission. For the first time, it appears that a regulatory initiative has to be self fulfilling. It is no longer the case that banks can just apply a formula to calculate regulatory capital. They have instead to calculate liquidity risk, stress liquidity risk factors, and all this via a robust, repeatable, automated and systematic solution. In effect, they have to prove that their liquidity Risk Management system actually works. We will see, that the future of Liquidity Risk Management, and in fact Risk Management as a whole will be the ability to prove that, firm by firm, it works. The future in fact will be to have a risk return framework in place to measure all risk types, stress all risk types and all via a comprehensive firm wide simulation framework. I have yet to be convinced that the banking community will take this approach unless mandated to do so via regulation. Why? Because I've yet to see a firm that lists as an 'operational risk' that their Credit Risk and Liquidity Risk solutions are not proven to work.