

waters

A Clear View of Risk

A year after the global meltdown gathered momentum, firms still face challenges in implementing risk solutions. What is fogging up their picture of their risk exposure?

By Phil Albinus



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This time last year, it seemed as though the world were coming to an end. The global financial markets followed the lead of the US and started an unstoppable descent into a recession. Once the bleeding stopped by the end of 2008—with Lehman Brothers and Bear Stearns in ruins and entire economies bouncing along the bottom—investment firms began taking stock of their risk practices.

So far, the consensus has been clear: Economists, politicians, TV pundits, and everyday citizens point fingers at mortgage-backed securities, credit default swaps, the teetering housing market, rampant credit card debt and other heedless practices for causing this meltdown.

And yet despite the fact that risk was the watchword on everyone’s tongue, CIOs are not overhauling their risk technology systems. If anything, observers close to the risk and technology teams inside major investment firms say the firms are simply fine-tuning to their risk systems. Others note that the banks are awaiting new regulatory oversight from the Obama administration and the Securities and Exchange Commission (SEC) in the US, the UK Financial Services Authority (FSA) and the European Commission.

The consensus seems to be that the collapse of the economy was not the fault of risk technology; rather,

people avoided the blinking red light.

A former CIO for the investment arm of a major US bank who requests anonymity says that banks are looking at the risk practices more than upgrading their risk technology. When they do look at their technology, however, they are faced with stubborn challenges that prevent them from getting a clear picture of their firm’s risk exposure.

THE RISK HURDLES

As is the case when implementing any technology, risk measurement and mitigation presents its own unique challenges that have only grown more complex with time. As workstations and servers become faster and more efficient—your risk system will need a grid network to calculate hundreds or thousands of risk positions overnight—the risk technology becomes more dense and at times unreliable.

According to Mike Everall, a former security risk officer for Dresdner Kleinwort Wasserstein and HSBC, risk falls into four basic buckets: financial, operational, regulatory and reputational. “Unfortunately, the asset classes tend to

sup from all of them—not just one,” Everall says.

Usually a “risk” is highlighted only in one area and fixed with a tactical and often standalone solution thrown at the problem. “The trouble is that folks rarely ever look at all of the risk buckets in a holistic manner due to time, resource, budget or awareness constraints,” says Everall. He adds that the end results soon resemble “a mishmash of reports, alerts, variances, data streams, databases,” and so on.

Another inhibiting factor, thanks in large part to two decades of mergers and acquisitions, is the mess of back-office systems—many of which remain in silos with their own protocols and standards. “It was hard for people to bring this all together into one platform. As the firms have grown by acquisition, they become so large that one system cannot do it all,” says Amir Khwaja, director of risk management at Calypso, a risk management software provider.

It also doesn’t help that investment firms have multiple systems depending on the assets and procedures they need to monitor. According to Sandeep Vishnu, a

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partner with Capco's global finance division, a firm can have anywhere from 10 risk systems all the way up to 100 for a large-scale firm that operates across the globe with multiple asset classes and trading desks. "It depends on specific definition of what you call a risk system. If you use common sense to apply simple rules to what you call a risk system and call it anything that allows you to determine exposures—risk is an academic process that shows when losses occur—it's not a small number," he says.

THE DATA AFTER

Along with vast horsepower from high compute server farms, investment firms need access to clean and reliable data to measure risk. "Data is like a five year-old boy in the garden: rarely clean and astonishingly noisy," says Everall. "If you build all your risk systems in a planned manner with full end-to-end integration, data normalization, common input-output formatting, and a common underlying rule base, then your end result will be cleaner."

Observers note that this rarely happens in the real world, which is why a large data warehouse and normalization engine underpins the disparate appliances, reports, systems and processes. "It's never cheap and has to be continually maintained as new environments, risks, and models come online.



Grid, virtualization and cloud computing can provide CIOs with the flexibility and extent of processing and controls you need," Everall says.

Otherwise, without clean data, it reverts to the classic chestnut, garbage in, garbage out (GiGo). Any problems that occur with data only grow and expand as it moves to a bank's servers and portfolio modeling and risk scenario tools. "Data might not be the be-all and end-all but it has the potential to be the problem downstream when you are making decisions," says Vishnu.

Another challenge for getting a true risk picture is political; risk management is not a cheap problem to solve and it doesn't create revenue. In fact, traders view risk officers as barriers to rewards. "As with all data issues, everyone says they are important, but until this type of unprecedented market collapse occurred, they said, 'This is not going to lift my revenue,'" says the former CIO. This is when a large-scale risk project can hit the skids.

THE 'ME-TOO' RISK BANDWAGON

It doesn't help that nearly every trading tool, from the largest platform to the lowliest gadget, claims to perform some sort of risk mitigation. According to George Michaels, principal with consultancy G2 Systems, everyone hopping on the risk solution bandwagon just adds more frustration to the already harried CIO. "It is difficult to separate the wheat from the chaff with all of the marketing [nonsense]. You have to do your homework and find out the origins of the risk systems, what they focus on and what has been added on by the marketing team," he says, adding that in the risk space, so-called vaporware—software that never materializes but which was hyped and promoted by the vendor that had planned to build it—is rampant.

According to John Jay, an analyst with Aite Group, this glut of software and

systems purporting to tackle risk—vaporware or otherwise—brings further integration issues to the enterprise. "These systems include disparate data sets and outputs that were developed to meet specific market opportunities and conditions and functional area mandates, which make it difficult to produce a common platform to measure overall risk," he says.

Ironically, these disparities can cloud up the overall risk picture for an investment firm, says Capco's Vishnu. "Even if it doesn't result in direct conflict, inconsistency is a very common feature. One says 'X' and the other says 'Y' and you're not quite sure which one is right. It's not that 'X' is the exact opposite of 'Y'—they're just different."

Inconsistency among the systems can lead to profound problems for risk officers and the CIOs who work with them. "It doesn't have to be data inconsistency; it can be rules inconsistency. A simple example is one fairly large multinational firm could have limits set differently on the same system and that changes what is allowable behavior and what is not allowable behavior," says Vishnu.

According to officials with Mereor Investment Management and Advisory, a Paris-based asset management firm, these multiple systems can drown out risk signals and prevent them from getting through to the people who need them: the risk officers. "The plethora of products purporting to provide risk solutions does produce a great deal of white noise when trying to choose a systemic solution that provides adequate risk management functionality. It is the responsibility of the firm's senior management to ensure that the risk management functionality isn't just an add-on to systems when they ticked the correct box on requests for proposals (RFPs) rather than a proper application that will mitigate the firm's risks and allay investor and stakeholder

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concerns,” says Hasan Sabri, COO for Mereor.

The firm focuses on credit and merger arbitrage strategies and recently signed on to use Imagine Software’s Web-based Derivatives.com service for its trade capture, portfolio and risk management functions.

IS TRUE COUNTERPARTY RISK A MYTH?

With these myriad challenges, can a large global investment firm ever get a true, up-to-the-minute picture of their risk exposure? Kevin McPartland, senior analyst of Tabb Group, says it is possible but extremely difficult. He says that if scientists can control a robot on the surface of Mars in real time then banks can calculate risk. “Unfortunately, decades of cultural, business and technology silos need to be worked through and changed before global, on-demand risk can become a reality,” he says.

According to Georges Gedeon, chief investment officer for Mereor, counterparty risk is an issue primarily on over-the-counter (OTC) products—such as loans, credit default swaps (CDSes), and OTC equity derivatives—where there is no central clearing. “As a firm we need to know what our exposure is at any time to a counterparty in OTC products, both gross and net. The aim is to continuously

review that exposure and adjust it accordingly to acceptable levels,” he says. “Also, by being a credit specialist, we are very much attuned to the credit risk perception of our counterparties as can be seen from the CDS spread levels on an almost continuous basis.”

Gedeon says that after the collapse of Lehman Brothers last September, “governments and regulators understand much better the implications of letting a big counterparty institution fail. Therefore, we are of the opinion that such large failures are very unlikely to happen because of the government’s implicit or explicit support. But because one never knows, this risk needs to be continuously monitored.”

What’s to say that this won’t happen with Bank of America–Merrill Lynch or the Royal Bank of Scotland, which have withstood severe body blows when the crisis erupted last fall? “The possibility that things will go wrong and the unlucky few will lose money is part of being in the financial markets. But there are things that can be done to reduce counterparty risk,” says Tabb Group’s McPartland. “Ten years ago, operational risk was a new concept; today it is common and well-measured. Looking forward, I think counterparty risk will progress in the same way.”

While industry analysts like Jay of Aite Group say that counterparty risk is a very difficult issue, it must be tackled. “It depends on the perspective from which one is viewing risk, the risk tolerance of the interested parties, and the business lines that intersect between the counterparties, such as syndicated underwriting,” he says.

Former security risk officer Everall is confident that technology can tame counterparty risk’s erratic behavior. “In theory and with an infinite budget, yes. There tend to be too many competing drivers like time-to-market, business perception, regulatory requirement, process lags, system interdependences, third party interaction, and so on. First, the organization has to fully articulate, document, accept and own its risk appetite, then its risk tolerance—two different beasts—and apply it to its risk exposure. This is attainable, achievable and maintainable with the right people, technology and processes.” ■

Hashing Out a Risk System

What does it take to procure and deploy good risk systems? We asked a former CIO of a major investment bank for insight.

Waters: Who sits at the table when an investment firm picks a risk system?

Former CIO: The CIO, the managing director who manages the market and credit risk technology, the chief risk officer (CRO), and his or her equivalent for the capital markets business. That person does the retail brokerage and the capital markets because you are dealing with the same instruments in those markets. Then there would be the operational aspect—the head of operations and his or her delegate for the capital markets and retail brokerage.

You would have those three and a representative from the trading floor would be the fourth. They would bring the quants, who sit at their desks on the trading floor doing a lot of modeling and what-if scenarios.

Those are the four players looking at functionality requirements, technical platforms and integration of what the CRO wants to look at, what the operations person want to look at and what the trading floor and management want to look at.

That’s at my old firm. At other firms, they might use subsets of those people. And that starts to create problems, because then there is not consistency with what the CRO is looking at and what the trading floor is looking at. You can have different calculations being done, different asset classes and different timings—so the results can get out of phase.

Waters: Did you buy or build?

Former CIO: We built our own risk system. At the larger firms, I have not seen them buy risk solutions off the shelf. They always develop in-house because all of the scenarios and models are all proprietary.

Waters: How long does this take?

Former CIO: It’s not a six-month project, especially if you start from scratch. With our market risk project, it took us about two years.