

## Banking

Building an enterprise risk management program for the banking and financial services is an evolutionary process, not a singular event. Building such a program is doomed to failure if it is not endorsed, promoted, and sustained by a sound governance structure that involves the entire organization, starting at the top.

Banks and financial institutions have always been regulated in one form or another, even before there was currency. We all remember the barter system, don't we? But the current global credit crunch resulting from the subprime lending crises is a clear indication that we all need to do a better job at managing economic capital and risk. In the financial risk management game of chess, capital is king, and all the other players have one goal - protect the king.

The recent economic uncertainties have prompted in several questions: How did we get here? When (and where) will the current financial crises end? And how will regulators and financial institutions change policies and procedures in their attempt to prevent a reoccurrence of the same or similar crises. All good questions, and in this Thanksgiving week, 2007, answers already have been proposed and acted upon which seem to offer a realistic approach to finding a way through the quagmire. You can read all about it on the Internet. We won't digress any further here except to say, the pain isn't over yet.

But perhaps that's the other part of the problem. When times are good, when the economy is strong, people tend to get lazy and greedy. Good times tend to bring out the worst in us. We are blinded by the reward and lose sight of the risk. Then, when the bottom starts to drop out, people blow the dust off the risk management manual and turn to the chapter on "Now What Do We Do?"

Of course there's more to it than that. On November 19, 2007, Freddie Mac announced that they had suffered a \$2 billion loss for the 3rd quarter. Industry analysts continued to scratch their heads while asking, "How could this have happened?" Conventional wisdom held that government sponsored companies such as Freddie Mac and Fannie Mae should be immune from the worst excesses of high-risk subprime mortgage defaults. After all, Freddie Mac had ample economic capital in reserve, estimated at over \$500 million above the mandatory 30% capital surplus set by federal regulators. But it wasn't enough, not by a long shot - a situation that was repeated throughout the industry.

Freddie Mac's CFO, Buddy Pizel, said Freddie Mac was moving to stem losses. "We have begun raising prices, tightened our credit standards and enhanced our risk management practices. We also continue to improve our internal controls." For the most part, banks and other lending institutions did have credible risk management programs in place. So why did so many CFOs and CROs underestimate their requirements for economic capital.

To answer that question, we need to look at the securitization of financial instruments that has become increasingly popular since the bullish 1980s. And we need to look at the financial risk modeling tools and methodologies used for quantitative analysis, especially where derivatives and other structured investment vehicles are involved. Securitization can be defined as the process of packaging risks into debt or equity instruments that can be traded in financial markets. Over the last 10 years, the securitization bandwagon has become a tsunami, which now appears to be one of the causes of the current mortgage foreclosure tsunami. This turned out to be a huge risk that had not been identified.

Unfortunately, the risk analytics and control mechanisms used with most risk management programs had not been re-structured to address the market realities associated with the ubiquitous securitized financial instruments. To a large extent, risk modeling had failed to capture the essence of the securitization model. And traditional models such as Value-at-Risk (VaR) and stress testing had been exposed for a critical inherent weakness - the worst case scenario had not been predicted. Extreme key risk indicators had not been identified nor assessed. The VaR model is used for quantitative risk management in the short run, but VaR provides little information about the severity of loss in the long run. Thus, economic capital requirements are difficult to calculate. Due to the unpredictable and complex nature of securitization, improved methods for stress testing and scenario analysis must be established. Investors and regulators need a more pragmatic way to monitor and measure risk and predict worst case scenarios. For this to happen, quantitative formulas need to be augmented with subjective, qualitative analysis.

A properly designed and deployed risk management program could have lessened the impact, duration and magnitude of the current credit crunch. Ironically, the most recent revisions to the Basel II Capital Accord were implemented as necessary guidelines for Banks to use in updating their risk management programs. "The improvements in risk management under Basel II will be valuable and important in promoting the resiliency of the banking and financial systems," said Federal Reserve Board Governor Randall S. Kroszner. However, there continues to be much debate among industry analysts as to the verisimilitude of this statement.

The reason why risk management programs fail is because they are not set up and managed properly. The goal of risk management is to find the optimal balance between risk and return (reward). The goal of risk management is to maximize returns relative to risk. Risk management programs should recognize core functional requirements for credit, market, liquidity, and operational risk. Current best practices for enterprise risk management need to view internal controls as more than simply mechanisms for risk mitigation. Controls now are structured and applied as value enablers through optimization of performance metrics. The more complex the financial instruments, the more complex the risk management framework must be. More importantly, though, is the need to balance quantitative risk measurement with qualitative professional judgment. And this "balance" must be a function built into any risk management framework. It's a matter of balancing people with process and quantitative analysis with qualitative judgment.

The good news is there are a few good examples of risk management and compliance software on the market that have been built and modified to meet the Banking industry's need for risk management as described above. Several companies have designed and developed their risk management applications in recognition of the need for standardization of risk terminology and technology, and consolidation and convergence of risk management best practices.

Software development is an on-going process, just like the programs it supports and automates. The point is, to do it right, you must understand the business process as an evolutionary process and understand technology as a tool that is only as valuable as the intelligence behind it. I see my job as staying on top of these developments and working with my clients to develop a plan for implementing these methodologies as best business practices for organizational excellence.