

# Three Under-Appreciated Mandates for Enterprise Risk Management in the Next Decade

## How can the lessons of the current mortgage crisis lead risk managers to change?

World financial markets have been rocked recently by a credit crisis with origins in the US home mortgage market. These markets have weathered similar credit crises in the past: the large corporate bankruptcies in 2001 and 2002 and the Commercial Real Estate (CRE) and Savings & Loan losses in the early 1990s are good examples.

But this crisis is different. It is more pervasive due to the greater integration of different financial markets across the world. It is also the first crisis which is driven by consumer confidence.

Banks can learn from each crisis and improve upon their risk management skills. The CRE crises led to changes in lending practices. The large corporate bankruptcies led to improvements in default prediction modeling and the emergence of credit hedging instruments. The question is how will the lessons of the current mortgage crisis lead risk managers to change?



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**Using econometric models in concert with traditional roll rates and time-series models will give bank managers more accuracy and confidence in predicting losses.**

Capgemini believes the next generation of risk management practices will focus on a more holistic approach in the use of risk analytics and information. This will produce a true Enterprise Risk Management capability which can meet the new risk management imperatives that will emerge from the present global crisis. We see three underappreciated mandates for Enterprise Risk Management that leading banks must embrace in the decade ahead.

### **1. To ensure transparency, a foundation of enterprise risk information must be established**

Modern risk management relies heavily on data. As the mortgage crisis has made evident, lack of transparency and accuracy in underlying credit risk factors can destroy the confidence in markets and longstanding institutions.

Bank managers must go beyond Basel II compliance and aggregate a broad range of risk data in a multi-year time series that is useful for both advanced analytics and rapid, ad hoc analysis— in addition to traditional management reporting. This data must be linked through the customer lifecycle so information is available at the account level from origination, through servicing, all the way through recovery.

This linkage through the lifecycle provides a foundation for key analytics such as Probability of Default and Loss Given Default. Market risk data must be better managed and should not be 'trapped' within the confines of the trading desk in spreadsheets and local databases. Banks should formally address the integration between credit and market risk and analyze the impact of potential losses spilling from credit to market and market to credit.

Special efforts need to be made to develop a unique global identifier for counterparties, with appropriate models to assess the total enterprise exposure to counterparties across the trading and banking book. Customer relationships and hierarchies should be managed centrally—as part of a master data system—upstream of archive data and typical data warehouse implementations. Additionally, tracing a customer across on- and off-balance sheet assets as well as across structured and static instruments is a necessity.

Likewise, reference data and common 'dimensions'—such as product type, asset type, collateral type, geography and cost center—must be managed centrally in the master data process. Changes to definitions or additions of products or codes should be centrally governed within a controlled workflow.

### **2. Excellent risk data governance and quality should become a strategic business objective**

Too often, independent lines of business do not agree on common business definitions such as 'yield' or 'default.' When there is agreement, sloppy management at origination and changes to the data through undocumented processes can seriously impact the reliability and credibility of the information.

Capgemini recommends a *Data Governance Organization* with executive oversight; and a key component being the standing Data Governance Council, which is responsible for managing data quality. Management of data definitions should not be relegated to the IT staff but rather identified as a core business responsibility in partnership with IT.

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We are helping several global institutions implement a central risk business data dictionary that defines the taxonomy of risk information, providing clarity to both IT and business users. This dictionary helps define and communicate conceptual and logical data models as part of an Integrated Modeling Framework. The framework becomes a reference tool for all levels of the organization, from programmers to senior management.

Leading organizations will manage the central dictionary, the models and other reference information with metadata management technology which lets banks manage reference information about the data. Metadata tools are crucial in establishing the lineage of information and quickly determining how data changes as it passes from front-end systems through database transformations and ultimately to users in the way of reporting.

New data standards have emerged that allow these tools to track and visualize how data changes as it passes through the organization. These metadata tools manage critical information such as who touched the data, the responsible data steward, the relationship to other data elements, data types and definitions.

### **3. Armed with integrated, reliable data, risk applications must be adopted at all levels of management**

Without question, Basel II has been a catalyst for major advancements in risk management practices. At the same time, many institutions have taken a narrow view and made investments to comply with the regulatory minimum, producing capital adequacy reporting for regulators with minimal value to the business and leaving information silos untouched between retail credit, commercial credit, market and operational risk areas.

For 2009 and 2010, we see the following four major trends emerging that will require enterprise risk applications.

#### **Financial Services Institutions (FSIs) must deliver integrated views of portfolio concentrations and be able to shock and stress test these concentrations for adverse economic events.**

High concentrations in residential real estate have become the global story, but similar unhealthy concentrations to certain manufacturing segments or retail segments will become next year's story as a global recession continues. Concentration analysis and stress testing, leading to adjustments in the loss allowance, are sure to be critical applications over the next few years.

#### **FSIs needs to deliver risk-adjusted measures as operational tools, not just backward-looking analysis.**

Risk-adjusted return on capital (RAROC) and Economic Capital applications should be better integrated and embraced by executive management. These applications can provide active capital budgeting and risk-adjusted pricing and assess the impact to the portfolio for each deal. Incentive structures should be inclusive of short- and long-term risks of transactions. They need to include the impact of loan holding versus origination strategies and the effective transfer of risk and returns.



**More predictive, forward-looking loss models are required that incorporate multiple model types to reduce model risk.**

Capgemini recommends a loss model that uses dozens of forward-looking economic indicators and 'self-corrects' by determining the best fit each period. Using econometric models in concert with traditional roll rates and time-series models will give bank managers more accuracy and confidence in predicting losses.

**Loan origination should be structured and consistent across the organization.**

Origination models should be designed to include qualitative and quantitative factors. Models should also pass through a well-defined model validation plan to minimize model risk. Model validation should also explicitly evaluate the validity of the model to the current and potential market conditions to ensure that models do not become obsolete.

Capgemini Financial Services can help you fast-forward your enterprise risk management initiative with a comprehensive suite of services and solutions. The [Capgemini Enterprise Risk Framework](#) addresses strategic risk and compliance imperatives such as Loss Forecasting, Basel II Readiness, Mortgage Modification, Risk-Based Capital Allocation and Risk-Based pricing. We create operational solutions by transforming the underlying data at the root of the problem. Our clients can meet more specific IT-related needs by selecting from a comprehensive set of services such as Data Governance, Risk Data Architecture, Meta Data Management and Risk Data Quality. We can help you ensure the transparency of your solution using advanced dashboard and reporting technologies.

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Register for a 30-minute, no-obligation introductory meeting with Capgemini Enterprise Risk Management consultants at [www.capgemini.com/riskmanagementframework](http://www.capgemini.com/riskmanagementframework)

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Backed by over three decades of industry and service experience, the Collaborative Business Experience is designed to help our clients achieve better, faster, more sustainable results through seamless access to our network of world-leading technology partners and collaboration-

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