

The New Risk Era:

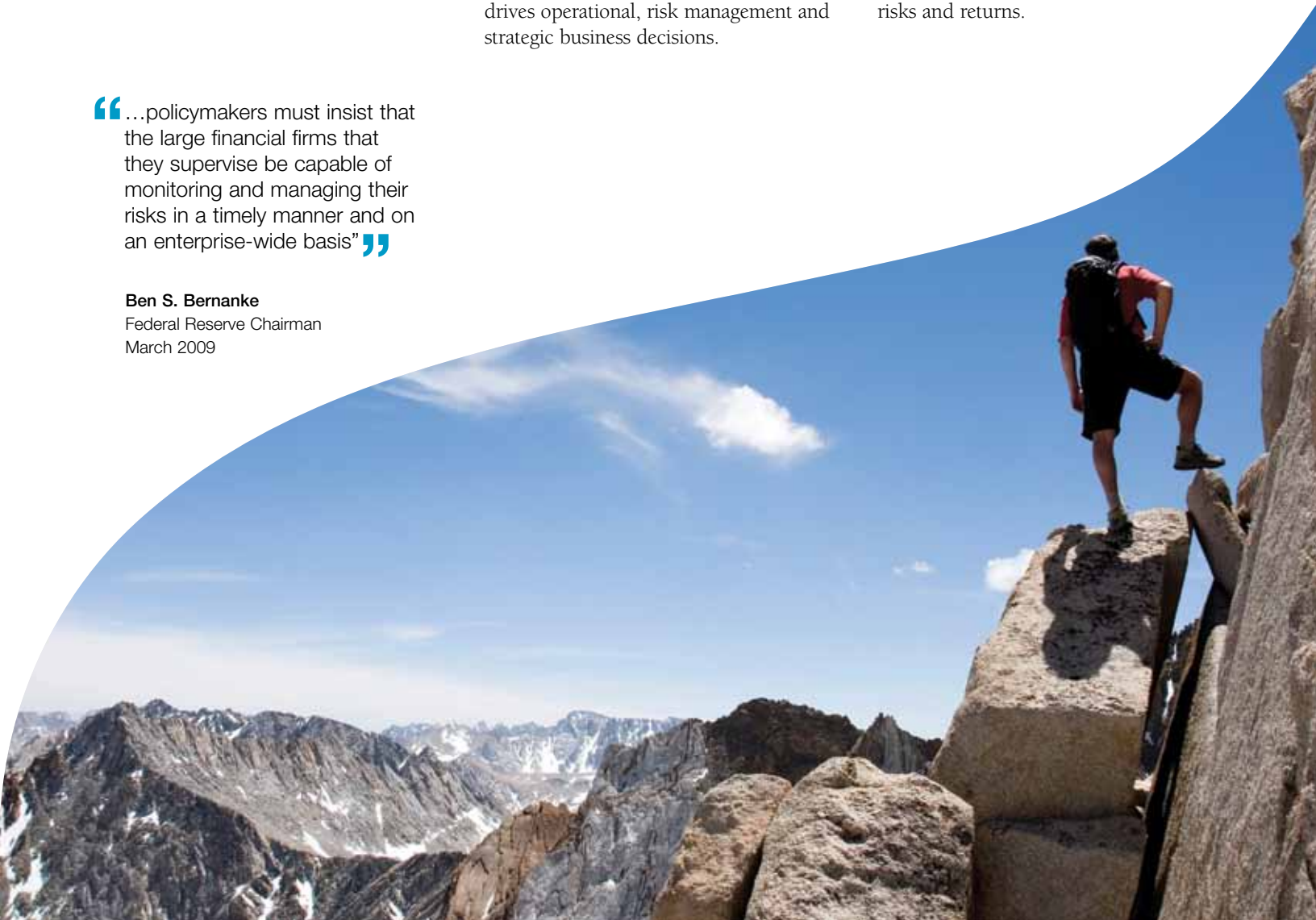
Capturing the Whole Picture

Over the years, enterprise risk management (ERM) has had its naysayers. But as the dust begins to settle on the financial crisis, it has become clear ERM must be woven into the DNA of banks going forward. ERM, also known as firm-wide or integrated risk management, is an approach to risk management which allows banks to analyze current, evolving and potential risks across the whole firm. This analysis drives operational, risk management and strategic business decisions.

An effective ERM approach aligns and integrates risk management governance, policies, systems and infrastructure on a firm-wide basis instead of taking the more traditional approach of managing risks only within individual business lines or functions. This means ERM-enabled banks can map, monitor and manage the different dimensions of risk and returns across the whole firm and establish clear accountability for those risks and returns.

“...policymakers must insist that the large financial firms that they supervise be capable of monitoring and managing their risks in a timely manner and on an enterprise-wide basis”

Ben S. Bernanke
Federal Reserve Chairman
March 2009



Moreover, ERM provides banks with a common lens through which senior managers and board directors can establish, discuss and iterate a formal risk ‘appetite’. Once established, this unique risk appetite can be used by decision makers at all levels of the bank to guide their actions. During the most recent crisis, it appears many decision makers:

- didn’t know their bank’s risk appetite;
- failed to adhere to it; or
- failed to fully understand the risks they were taking.

ERM insights can give senior managers and board directors a clearer picture of the full risks and ramifications of pursuing one strategy over another. For instance, ERM intelligence can provide

key stakeholders with ‘stress tested’ scenarios that demonstrate the potential range of outcomes—and the most likely—for a given profit strategy.

Accordingly, these stakeholders can properly evaluate the full implications for the firm as a whole, in terms of both opportunity and risk exposure, and methodically decide whether to pursue or reject that profit strategy, depending on long-term business goals.

These and other benefits of ERM are not lost on regulators. Since early-2008, country regulators, other financial supervisors and industry practitioners have been publicly dissecting the causes of the financial crisis and advocating changes to avoid similar systemic shocks in the future. Integral to their recommendations are improvements in the ability of financial services firms to identify, monitor, report, and manage their risk exposure on an enterprise basis⁽¹⁾. Indeed, the Senior Supervisors Group identified specific firm-wide risk management practices as the differentiating factor for better or worse performance among banks during the crisis.

It seems clear ERM is the only way to properly identify and manage risk in today’s complex and interrelated markets and ensure best practice governance of a firm’s risk-reward strategy. Banks that fail to invest in ERM for the business benefits will soon find themselves falling short on regulatory compliance as ERM standards inevitably become a more formal part of risk oversight standards.

ERM Practitioners Had an Edge in the Crisis

ERM practices were cited as a key differentiator by the Senior Supervisors Group* in its 2008 *Observations on Risk Management Practices during the Recent Market Turbulence*.

Firms that “demonstrated a comprehensive approach to viewing firm-wide exposures and risk, sharing quantitative and qualitative information more effectively across the firm and engaging in more effective dialogue across the management team” tended to deal more successfully with the ongoing market turmoil (at least up to that point), said the group.

More specifically, the SSG stated four firm-wide risk management practices differentiated better performance from worse among banks in the financial crisis. The four practices are:

- Effective firm-wide risk identification and analysis;
- Consistent application of independent and rigorous valuation practices across the firm;
- Effective management of funding liquidity, capital, and the balance sheet; and
- Informative and responsive risk measurement and management reporting.

*As of December 2009, the SSG includes ten supervisory agencies from seven countries: Canada, France, Germany, Japan, Switzerland, United Kingdom, and United States.

Note 1. ERM has been advocated in: *Improving Financial Regulation and Implementation Standards on Compensation*, Reports by the Financial Stability Board to the G20, September 25, 2009; *The Turner Review: A regulatory response to the global banking crisis*, Financial Services Authority (UK), March 2009; *Financial Reform to Address Systemic Risk*, Ben S. Bernanke, speech to the Council on Foreign Relations, March 10, 2009; *Financial Reform: A Framework for Financial Stability*, Group of 30, January 15, 2009; *Containing Systemic Risk: The Road to Reform*, The Report of the CRMPG III, August 6, 2008; *Report of the Financial Stability Forum on Enhancing Market and Institutional Resilience*, April 7, 2008; *Risk Management Lessons from the Global Banking Crisis of 2008*, Senior Supervisors Group, issued, October 21, 2009, http://www.financialstabilityboard.org/publications/r_090925b.pdf.

Enterprise Risk Management is a Necessary Response to the Evolution of Risk

It is worth remembering that the regulatory focus on enterprise risk management is itself a response to market developments. Even before the financial crisis, regulators were well aware that financial innovation and other forces—such as technology, market structure, and investor psychology—have made the products and capital flows of modern day finance extremely complex.

As a result, regulators were nudging banks to improve their ability to identify, monitor and manage risk accordingly. For example, from the onset the Basel II Framework has sought “to improve on the existing rules by aligning regulatory capital requirements more closely to the underlying risks that banks face,” according to the Basel Committee on Banking Supervision. Similarly, Solvency II has sought to hone the treatment of risk by insurers.

The financial crisis simply proved exactly how complex and interrelated risk had become and uncovered how ill-prepared many banks were to monitor their own exposures, especially across the entire institution. In the most recent crisis, for instance, credit risks turned into market risks, which soon became liquidity risks. More traditional siloed methods of quantifying and monitoring risk were unable to adequately deal with this kind of metamorphosis, spot the resulting risk contagion, or gauge the gravity of firm-wide exposures—let alone provide any kind of heat map or early warning system for priority remedial actions.

Traditional risk management approaches also proved inadequate for managing the risks created by products such as credit default swaps. These derivative products relied on complex and interrelated webs of counterparties. Traditional approaches failed to anticipate the widespread threat to all participants when conditions changed for the underlying assets. While traditional risk systems were able to track aggregate exposures at, for example, the legal entity level, banks remained in the dark about their gross and net firm-wide exposures to different counterparties.

The crisis also revealed fundamental failures in the systematic governance of risk, with many firms seemingly turning a blind eye to risks in favor of exploiting the market’s exuberance. This short-sighted approach prompted many firms to take on disproportionate amounts of risk, deliberately or inadvertently, by stretching existing risk standards or failing to establish, review and adhere to risk standards as time passed and circumstances changed. Many firms also lacked (or failed to enforce) any mechanism to ensure activities pursued by individual business lines were in the best interests of the firm as a whole.

These failures of risk governance kept many banks unaware of their risk exposure, especially those that did not share intelligence across the enterprise. And it was these types of governance failures that allowed banks to amass sub-prime loan and other high risk assets beyond practical limits—even when red flags, such as the decline in housing prices, should have prompted them to apply the brakes. Additionally,

risk governance protocols did not exist, or were ignored, as banks invested heavily in collateralized debt obligations (CDOs). These decisions failed to acknowledge (or maybe recognize) that their firms were essentially doubling up their risk exposure to tap into asset price bubbles without giving due consideration to the longer-term ramifications for firm-wide risk exposure.

Given the changing shape of global finance and risk, it is perhaps not surprising that day-to-day risk-management practices have failed to keep pace. But banks that neglect to take to heart the risk lessons learned from this financial crisis will be ill-prepared for the next.

Of course, the most recent crisis is unlikely to repeat itself exactly, but the types of forces that caused the crisis could easily recur. Most recently, those forces included the concentration of counterparties, the systemic exuberance that helped to inflate leverage and asset values, and the widespread belief that ample liquidity could somehow endure indefinitely. These and other potent market forces pose a grave threat to any bank that fails to monitor the degree to which the entire firm is exposed at any one time, and over time.

As stated by the private-sector Counterparty Risk Management Policy Group III, "...the most sophisticated risk management models and metrics are only as good as the ability of individual institutions to monitor all positions and risk exposures on a timely basis." Banks therefore need to make sure they can account for all risk dimensions across businesses and can monitor and report the whole picture in an accessible way. Those monitoring and reporting processes should also be dynamic enough to account for changing conditions while incorporating some facility to set automatic 'red flag' warnings or other advisories when conditions warrant further review by decision-makers.

Going forward, this whole-picture risk view will become a requirement for banks wanting to make good business decisions and sustain profitable growth—and regulators plan to make sure banks make the necessary improvements to support systemic health. In the words of U.S. Federal Reserve Chairman Ben Bernanke, "policymakers must insist that the large financial firms they supervise be capable of monitoring and managing their risks in a timely manner and on an enterprise-wide basis."



CROs and CFOs Recognize the Risk Imperatives But are Challenged on Execution

In the face of the market and regulatory realities, the case for enterprise risk management seems overwhelming, but the evolving risk landscape has clearly created enormous challenges for the Chief Risk Officers (CROs) and Chief Financial Officers (CFOs) who are charged with the actual implementation of new risk systems or the recalibration of existing ones.

There are numerous strategic risk issues keeping bank CROs and CFOs awake at night, but issues of information transparency and data strategy underlie almost all of these concerns. In fact, to address strategic risk imperatives most banks—whether they already have an enterprise risk system in place or not—need to:

1. **Achieve greater transparency** into the risk and return of business decisions based on a reliable foundation of enterprise risk information;

2. **Elevate risk data governance** to a strategic business objective; and
3. **Institutionalize integrated, reliable risk applications** at all levels of management.

These three initiatives form critical building blocks in developing a sound ERM approach. Ultimately, establishing an effective ERM approach requires defining risk appetite, measuring risk, analyzing pertinent data, and taking necessary actions. That process cannot succeed without these three building blocks.

Let’s illustrate the benefits of ERM by considering how these building blocks can better position a bank to meet three potential risk objectives:

- Quantifying current and future value/ threat to the balance sheet of firm-wide risk exposures;
- Articulating, communicating and institutionalizing risk appetite; and
- Better aligning compensation and risk appetite.

8 Key Risk Questions Haunt Today’s Bank CROs and CFOs	
1.	Has our firm adequately articulated and communicated its appetite for risk?
2.	Do we know which activities are already, or may become, inconsistent with that risk appetite? How robust and granular is our risk data? Does the quality of our data threaten the validity of e.g., our stress tests?
3.	How can we better align compensation with our risk appetite?
4.	Can we properly quantify the threat to the balance sheet of all the firm’s different types of risk exposure (credit, market, operational, contagion, liquidity, reputational)?
5.	How will the gaps in our own capabilities (e.g., in our risk compliance, organization, modeling and measurement, infrastructure, and reporting) affect our ability to properly monitor and manage each type of risk?
6.	Is risk concentrated in a way we cannot see e.g., across counterparties, products, regions?
7.	Can we adequately test how future conditions will change our risk exposures?
8.	Is our information technology (IT) infrastructure up to the task?

Quantifying the Value and Threat of Risks to the Balance Sheet

To date, even firms that embrace the concept of ERM in theory have found it difficult to achieve the required level of transparency into firm-wide risk exposures. In most cases, this is a result of two combined forces: technology and lack of governance. IT infrastructure is often predisposed to gathering “static” data and locking it into silos. More fundamentally, though, many banks lack the strategic imperative to demand that data be integrated and dynamically accessible.

In fact, disaggregated data exists in all organizations to some degree. This can occur for many reasons. For example, certain products, lines of business, or other stakeholders may have been excluded from data-integration initiatives, or multiple proprietary systems may endure after institutions merge. Sometimes, different functions—such as a control function and a trading center—have separate systems that gather and house the same information while using different formats and tags.

Some data-privacy laws have rules on how data is gathered, stored, and shared, leading to duplication.

Whatever the specific reasons, many banks have a limited ability to view, let alone actively monitor, exposures across businesses, counterparties and risk dimensions. This opacity limits a bank’s ability to extract maximum value from each assumed risk, identify the degree to which any risk exposure needs to be actively managed, or spot concentrations and other high risk exposures that exist—or could emerge as circumstances change.

An effective ERM approach institutionalizes the goal of achieving and maintaining an integrated and firm-wide risk picture. ERM processes and systems can consistently map risk dimensions and automate business-decision “flags” (e.g., when risks become concentrated) so business leaders can take prompt action. Moreover, an effective ERM system is flexible, allowing risk managers and business leaders to drill down into different risk exposures and understand how those exposures change with time and circumstances.

Banks Concede Key Risk Information is Trapped within their Firms

The 2008 report by the Counterparty Risk Management Policy Group (CRMPG) III notes that, despite all of the complexities of risk management, at its essence lies a simple imperative: “getting the right information, at the right time, to the right people, such that those people can make the most informed judgments possible.” The 2009 SSG report shows financial firms concede such information is not as accessible as it should be. For instance, of the 20 firms interviewed:

- Two-thirds indicated they were only partially aligned with regulatory recommendations with regard to the capacity to estimate *within hours* asset class concentrations and institutional counterparty exposures;
- Two-thirds responded that they were only partially aligned with the recommendations that credit risks be viewed *in aggregate*, that consideration be given to the effects of *correlations* between exposures, and that *counterparty* risk consider the size and direction of positions a counterparty has with other firms; and
- One firm noted it had the ability to aggregate data to a *single* large counterparty within a day, but the SSG noted that during some periods in the fall of 2008, information was needed on a dozen or more counterparties at a time.

ERM allows a bank to decide as a whole which exposures are immaterial, which risks are worth the potential return or volatility, and which are simply excessive in relation to the potential impact on the balance sheet and profits.

Articulating and Institutionalizing Risk Appetite

The most recent financial crisis revealed an important reality about risk governance in today's complex markets:

Many senior managers and board members did not fully understand the extent or nature of the risks being taken by their banks.

Outstanding risk exposures were often inconsistent with the risks key stakeholders believed the firm was taking. Regulators are now urging board members and senior managers to be more proactive in setting risk 'appetite' for their bank—setting and maintaining a stated tolerance for risk.

ERM is a critical tool in framing the risk conversation and helping to ensure different stakeholders across the organization make an informed and joint commitment to identifying, monitoring and managing risk. By delivering actionable information, ERM allows a bank to decide as a whole which exposures are immaterial, which risks are worth the potential return or volatility, and which are simply excessive in relation to the potential impact on the balance sheet and profits.

Every firm must choose the best gauges for its people to watch and the best ways for stakeholders to share the pertinent information, but a good ERM system should be flexible enough to deliver whatever information is necessary in a form that can spark actual decisions. At the same time, ERM provides an overarching view of the risks across the firm, so it can shine a light on risks the firm does not or cannot otherwise evaluate easily, such as those created by the correlation among separate risks or the concentration among counterparties.

Better Aligning Compensation with Risk

Articulating and institutionalizing a firm's risk appetite is the first step in addressing performance-related issues including executive compensation. ERM may not be able to help a firm settle contentious arguments over talent management, ethics, and fairness, but it can help banks establish accountability of risks and revenues in some important ways, based in part on the firm's risk appetite.

Many banks now concede compensation has typically been driven more by revenues than by earnings adjusted for relevant factors such as risk and capital costs. An ERM approach offers greater transparency into the links between business lines, risks and rewards over time. It can even link key risk activities, such as asset valuations, to specific parties. This transparency can help banks align compensation and performance management systems with actual risks.

Banks have also embraced the concept of variable income for employees—much like the variable returns on capital-market products—without embedding the same kind of caps and hedges routinely built into products. In clarifying accountability for risks and returns, an ERM approach can form the basis of a more dynamic compensation strategy. For example, banks could more clearly establish floors for payouts (i.e., make sure there is no payout without performance) and set caps to ensure variable income cannot grow without limits.



In taking a firm-wide approach to risk management, **CROs or CFOs can have a more informed say over business line decisions regarding incentives.**

This will better ensure that incentives for individuals take into account key factors such as the amount and cost of firm capital deployed or the firm liquidity absorbed to generate those returns, not just the returns.

By contributing a forward-looking perspective on evolving risk exposures, **ERM approaches offer a better idea of the optimal timeframes needed for add-on compensation provisions,** such as deferral periods for vesting and payouts. If all else fails, the increased risk/reward accountability achieved through information transparency should provide quantitative measures by which to claw back compensation if results turn negative.



Enterprise Risk Management Delivers Benefits to the Business, the Balance Sheet, Shareholders, and Operations

In considering a few real-life applications, we can see some of the broader benefits of ERM to the business, the balance sheet, shareholders and operations.

The Business

Using ERM improves risk decisions and outcomes. Insights from ERM enable the firm as a whole to better correlate corporate performance to risk exposure (e.g., enhancing risk-return analysis), improve decisions on investment and capital allocation, and identify risk opportunities that could be used for competitive advantage. In short, ERM helps the organization be more perceptive in the full gamut of risk activities by:

- Improving the ability to identify outliers that represent uncharted risks;
- Uncovering situations that require prompt corrective action; or
- Maximizing recovery in the case of a default.

This perceptiveness reaches far beyond basic decisions about which risks to assume and which to avoid. It allows the firm to manage the entirety of its risk profile, in part by improving its ability to predict risk outcomes. This leaves the firm better able to optimize the balance of returns vs. losses on assumed risks.

The Balance Sheet

Financial benefits are derived from better risk decisions, and from cost savings. The balance sheet is ultimately enhanced by the improvements in risk decisions and outcomes and the cost of managing certain risks may also be reduced by a clearer view of risk

accountability and risk types. Moreover, operational costs can be lowered by retiring siloed databases and eliminating manual processes.

Shareholders

As finances and operations improve, shareholders benefit. There is no question that regulators, analysts and investors are looking at risk management when judging the long-term health of banks going forward. An effective ERM approach can make sure the firm extracts as much value as possible from each risk and helps optimize the balance between earnings and losses on risks taken. This, in turn, contributes to shareholder value.

ERM provides a framework with which to explain to shareholders and other stakeholders the intent in pursuing one strategy over another. Articulating risk appetite will be especially important if the strategy appears to diverge from prevailing trends—for example, bypassing near-term opportunities in favor of longer-term objectives. This clarity of message should increase confidence among shareholders and other stakeholders, potentially improving the bank's ability to compete for investor capital.

Operations

Operations can be optimized around a single view of risk appetite and exposures. ERM establishes an effective framework for linking strategic goals to operational plans, performance management, and balanced scorecard frameworks. It provides a single, consistent prism through which risk appetite is discussed, communicated and integrated into business lines and decisions and reduces the firm's reliance on legacy systems and individual

contributors. ERM establishes a common language and organizational understanding about risk and its inter-relationships, providing a pragmatic way to align behavior and ensure effective decision-making. In providing an early warning capability, ERM also enables firms to take pre-emptive action to manage risk and exploit opportunities. ERM also helps deliver more immediate answers to ad hoc risk questions such as those related to concentration and stress test scenarios.

Conclusion

The benefits of enterprise risk management—and particularly the data and information that form the bedrock of ERM—have become especially clear since the financial crisis. Not only do regulators want banks to see the whole risk picture across their firms, banks must use those firm-wide insights to drive improvements to risk governance, make better business decisions, maximize returns from risks, and minimize the losses. The benefits to the business, operations, the balance sheet, and shareholders are tangible, but most banks still have a considerable amount of work left to do.

If your bank can answer ‘No’ to any of the following questions, it can benefit from establishing a formal ERM approach or re-evaluating the existing one:

- Are your risk and compliance requirements properly integrated with your business priorities?
- Is your risk management process aligned with your strategic decision-making process and existing performance measures?

- Is your risk framework properly calibrated to recent market developments?
- Does your current risk framework drive timely, top-notch decision-making?
- Can you proactively analyze the changes in exposures to your financial performance?
- Is your risk management process coordinated and consistent across the entire enterprise? Does everyone use the same definition of risk?
- Is risk data accessible to anyone who needs to see it, in a form they need to see, when they need to see it?
- Are you ahead of your competitors in meeting regulatory expectations about firm-wide risk reporting and monitoring?

While large, integrated institutions face the highest risk from failing to establish ERM, even smaller institutions can benefit since the financial markets have themselves become so complicated. And while IT infrastructure investments are inevitable, it is important to remember it is the strategic commitment to ERM that is the most important and serves as the first step for successful ERM execution.



About Capgemini's Global Risk Management & Compliance Center of Excellence

Capgemini Financial Services offers a set of integrated business and technology services to control, manage and predict risk. We offer unparalleled intellectual property which accelerates projects and time to market while reducing costs and risks.



Within the last two years, Capgemini has delivered over **500** risk and compliance projects and **100** Basel projects.

Capgemini's network for risk and compliance includes over **400** risk management and compliance experts and **1,800** business intelligence specialists.

Our services cover four areas:

Enterprise Risk Management

With Sigma Map™ and our Enterprise Risk Management Maturity framework, financial institutions gain an enterprise-wide view of risk across each dimension mapped to the balance sheet. This holistic view provides your institution with the total risk exposure and impact on key financials and stock price valuations.

Market Risk Management

Capgemini's Market Risk Management solutions help firms establish a framework, address the integration between credit and market risk, and analyze the impact of potential losses spilling from credit to market and market to credit. Our services include:

- Reference Data & Semantics
- Enterprise Models & Methodologies
- Analytics Models & Methods such as Value at Risk (VaR)
- Economic Capital and Risk Adjusted Return On Capital (RAROC)
- Information Strategy & Architecture
- Governance & Metadata
- Customer Data Integration & Master Data

Credit Risk Management

Together with several top 50 banks, Capgemini developed a Credit Risk Framework for institutions looking to proactively manage credit risk across the enterprise. We can help build an effective Credit Risk Management program by:

- Designing and implementing a Credit Risk Framework
- Performing a Credit Risk Assessment
- Building Credit Risk Scoring Models and Credit Risk Reporting Dashboards
- Forecasting Loan Loss

Operational Risk Management

With so many sources of operational risk, firms need to target efforts to be most effective. Our tailored methodology brings banks into compliance while delivering the right information for managers to create value. Capgemini can show you how to decrease your operational risk losses with services that include:

- Operational Risk Assessment
- Operational Risk Management Software Selection & Implementation



To learn more about Capgemini's Risk Management and Compliance services, contact our Center of Excellence at riskandcompliance.fsgbu@capgemini.com.



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Capgemini, one of the world's foremost providers of Consulting, Technology and Outsourcing services, has a unique way of working with its clients, called the Collaborative Business Experience.

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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