

The bigger picture

Enterprise risk management in financial services organisations

A report from the Economist Intelligence Unit



Sponsored by SAS





About the research

The bigger picture: Enterprise risk management in financial services organisations is an Economist Intelligence Unit report that explores the evolution of enterprise risk management (ERM) and risk practices among financial services companies. The report is sponsored by SAS. Christopher Watts was the author of the report and Kim Benjamin was the editor.

The Economist Intelligence Unit bears sole responsibility for the content of this report. Our editorial team executed the online survey, conducted the interviews and wrote the report. The findings and views expressed in this report do not necessarily reflect the views of the sponsor.

Our research for this report drew on two main initiatives.

- We conducted an online survey of 316 senior executives from around the world in July 2008. The survey included companies of a variety of sizes from the financial services industry. All respondents have a primary focus on risk management.
- To supplement the survey results, the Economist Intelligence Unit also conducted a programme of qualitative research, comprising a series of in-depth interviews with industry experts.

We would like to thank the many people who helped with this research.

September 2008



Executive summary

It has been more than a year since the first signs of the credit crisis emerged, but its repercussions can still be felt far and wide. The crisis has triggered well over US\$400bn¹ of asset write-downs among financial services companies, and led to spectacular implosions at Bear Stearns in the US, Northern Rock in the UK and IKB in Germany.

As senior managers in financial services firms continue to face the prospect of uncertain economic and market conditions, many are subjecting their risk management discipline and function to intense scrutiny. More often than not this is leading to a growing emphasis on enterprise risk management (ERM) or firm-wide risk management. ERM refers to an approach whereby all categories of risk across each business unit and geography are aggregated at the enterprise level and treated holistically, while at the same time recognising the need to maintain levels of granularity. Many financial services providers are implementing such an approach to achieve a more consistent and coherent view of their risk exposure across different parts of the business.

In July 2008 the Economist Intelligence Unit conducted a global survey on behalf of SAS to gain insight into ERM strategies and their supporting elements. The survey attracted 316 senior participants from across the financial services industry. The report that follows presents the highlights of those survey findings along with related additional insights drawn from interviews with industry experts and commentators.

Financial services firms are placing a growing emphasis on enterprise-wide or firm-wide risk management, but for many implementation is still in the early stages.

The credit crisis highlighted failures in risk management at financial services firms and, in our survey, 59% of respondents say that the credit crisis has forced them to scrutinise their risk management practices in greater detail. More often than not, this is leading to a growing emphasis on enterprise-wide risk management. Putting such emphasis into practice, however, still remains a challenge, as 71% of surveyed firms that have an ERM strategy in place say that they have not yet fully implemented it.

¹Institute of International Finance report on Principles of Conduct and Best Practice Recommendations, July 2008



An expectation of growing regulatory pressure is one factor driving the implementation of enterprise-wide risk management.

In the wake of recent recommendations from a number of high-profile industry groups, regulators and rating agencies are likely to step up the pressure on firms to adopt best practice in risk management systems and processes, particularly in stress-testing. This is an area, however, that firms are likely to find challenging. In our survey, only 27% of executives indicate that they have full confidence in their own stress-testing practices.

Lack of relevant data is hampering financial services firms' approaches to risk management.

For many executives at financial services firms, access to relevant, timely and consistent data is an obstacle to implementing an enterprise-wide risk management strategy and to using risk management tools such as credit scoring, stress-testing and economic capital. While a sophisticated infrastructure is necessary to handle risk data, executives in our survey also emphasise the importance of human judgement in risk management.

Creating a culture for risk management is a challenging proposition for most firms.

One of the keys to successful enterprise risk management is embedding risk management within the company culture, but for surveyed executives this was the most widely encountered challenge, cited by almost one-half of respondents. Organisational structures play an important role in developing this culture, as do the strength of reporting lines and other communication channels.



Key points

- The credit crisis has prompted senior executives in financial services to scrutinise their risk management practices in greater detail
- Some financial services firms are moving away from a silo-focused approach to risk management and adopting a more sophisticated, holistic system
- An expectation of growing regulatory pressure is one factor prompting an increased awareness of enterprise-wide risk management

Appetite for ERM

Despite a growing appetite for enterprise-wide risk management among the world’s largest financial services providers, there is some way to go before such practices are fully rolled out and operational. Just 18% of senior financial executives who responded to our survey say that they have an ERM strategy that is well-formulated across the business and is fully implemented. A further 71% of respondents indicate that they have an ERM strategy in place that is being implemented, or will be shortly, while 8% say that they have no such policy in place, but plan to introduce one in the short-term. This discrepancy between appetite for ERM and low levels of completed implementation may be explained by the fact that the move to an enterprise-wide risk management approach is lengthy and often involves a shift in corporate culture. In some ways ERM is a journey rather than a destination.

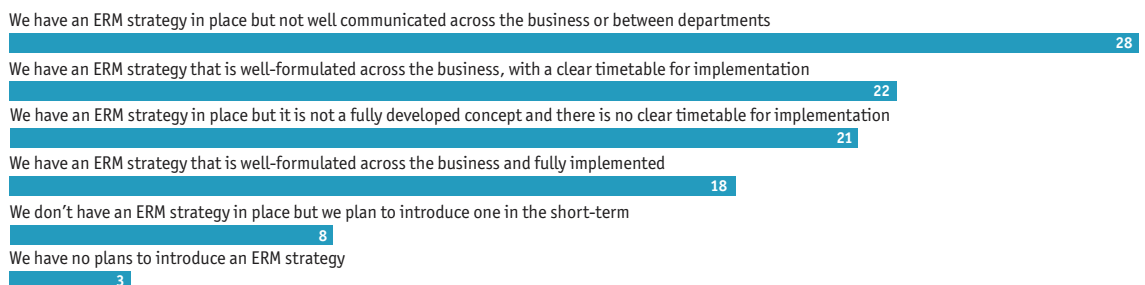
Some institutions are moving from traditional silo-focused systems to a more sophisticated, holistic approach, while others are busy fine-tuning an enterprise-wide approach that has been developed over the past decade. It is clear, however, that many firms are tackling the risk management issue at an enterprise-wide level for the first time. One such institution is Dubai-based investment bank, Shuaa Capital.

The shift to ERM is most visible where the problems have been greatest.

Nick Hill, bank rating team, Standard & Poor’s

Which of the following best describes your company’s approach to ERM?

(% respondents)





“Complexity of products in the Gulf region will grow in the coming years,” says Oliver Lee, the firm’s head of risk management. “We are setting up risk management systems to be ahead of the development.”

Nick Hill, who tracks ERM for Standard & Poor’s bank rating team in London, says that he sees a pattern among those firms taking a critical look at their risk management strategies in the wake of the credit crisis: “The [recent] shift to ERM is most visible where the problems have been greatest,” he says. In other words a focus on enterprise risk management is most evident in those large, complex US and European banks. Their previous approaches to risk management exposed them to losses as the credit crisis unfolded.

Survey results on a regional level indicate that just 11% of those respondents based in Asia-Pacific have an ERM strategy in place that is well-formulated across the business and fully implemented, compared with 15% in North America and 21% in western and eastern Europe. These regional variations are fairly modest, but may be partly as a result of differences in regulatory focus between the US and Europe. Company size also has a part to play. Of those working for companies with assets of US\$100bn and under, 15% say that they have an ERM strategy that is well-formulated across the business and fully implemented, while 27% in companies with assets of US\$100bn and more say that this is true.

Those surveyed for this report believe that the losses stemming from the credit crisis were largely as a result of failures to address risk management issues. In some organisations it may have been that the risk function was kept too separate from the business units, or that there was no firm-wide or enterprise-wide view; in others, there was perhaps too much reliance on pure modelling and too little understanding of the limitations of these models. Weak liquidity risk controls were also a common source of problems faced by many in the aftermath of the credit crunch.

Executives, however, now appear to be paying attention: 59% of survey respondents say that the credit crisis has prompted them to scrutinise their risk management practices in greater detail and, in anticipation of a sharper regulatory focus, many are revisiting their risk management practices. In a recent speech, the chairman of the board of governors of the Federal Reserve (the US’s central bank),

CASE STUDY Lessons learned

Most financial services companies are exposed to a wide range of risks. For insurers, though, the main exposure is often in two areas: premium and reserving risk (the core insurance risk); and asset/liability management risk (the risk associated with the firm’s investments in the capital markets).

It is no wonder, then, that the terrorist attacks on the US on September 11th 2001 marked a bad day for insurers. Not only did the industry face deep insurance losses as a direct result of the attacks, it also suffered investment losses during the stockmarket downturn that followed. “Most companies were relatively badly prepared,” recalls Axel Lehmann, chief risk officer at Swiss insurance provider, Zurich Financial Services.

Zurich itself was one of these companies. Up until that time

Zurich’s business model was built around extracting incremental returns out of the capital markets on the back of investment of policyholders’ cash. This capital markets activity subsidised Zurich’s core underwriting business. “We took huge amounts of asset/liability management risk and our premium and reserving risk was in relative terms slightly on the low side,” explains Dr Lehmann.

Zurich’s response offers a lesson to those in the insurance industry—and perhaps to firms in other financial sectors. In the wake of the financial market turbulence that followed the September 11th terrorist attacks, the group embraced an enterprise-wide approach to risk that helped to put the group’s relative risks and returns in perspective. The result has been such that over the past five years, the group has focused on its core underwriting business. “We have allocated more capabilities, capacity and capital to the core insurance business, and are taking fewer bets on the capital market,” says Dr Lehmann. “The risk profile is following the strategy of the rest of the group.”



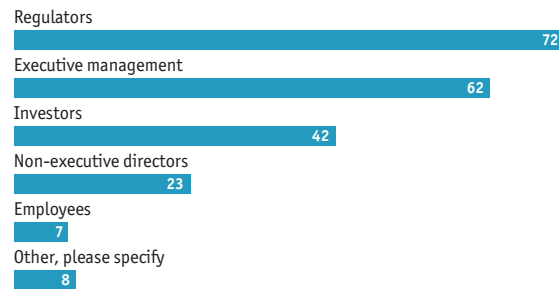
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Economist Intelligence Unit 2008

Which of the following stakeholders are currently exerting pressure on your organisation to implement or refine an ERM strategy?

(% respondents)



Which of the following do you believe are the most important potential benefits of an ERM strategy?

(% respondents)



Ben Bernanke, said that he is considering “further emphasis on the need for an enterprise-wide perspective when assessing risk”. In addition, the Basel II recommendations on banking regulation worldwide and the more recent Solvency II regulatory requirements for insurers operating within the EU are shifting the regulatory focus from traditional geographic indicators to a more holistic, risk-based capital view.

Recent reports by the Financial Stability Forum (FSF), the members of which include a number of regulatory and governmental bodies, and the Institute for International Finance (IIF), an association of financial institutions, are now calling for closer scrutiny of the risk management process. The FSF has recommended the strengthening of guidance for the firm-wide management of concentration risks to individual borrowers, overall sectors, geographic regions and economic risk factors. For its part the IIF has emphasised the importance of a holistic approach to risk management. In a July 2008 report it stated that “a robust and pervasive risk culture throughout the firm is essential. This risk culture should be embedded in the way the firm operates and should cover all areas and activities, with particular care not to limit risk management to specific business areas or to have it operate only as an audit or control function.”

It comes as no surprise then that regulators are the stakeholders that are most often cited by survey respondents as currently exerting pressure to implement or refine an ERM strategy. Some 72% of executives surveyed say that they feel pressure from regulators to adopt an enterprise-wide approach to risk management, yet only 24% say that doing so offers greater levels of compliance.

It is not only regulators that are behind the growing appetite for enterprise-wide risk management practices. In 62% of cases surveyed firms respond that it is senior management that is a driving force behind their adoption. In some instances ERM has been implemented by firms in the wake of deep losses incurred during the last downturn in equities markets in 2001 and 2002.



Key points

- Protection against loss and damage to reputation is seen as the most important potential benefit of an ERM strategy
- Financial services firms are sharpening their existing risk management practices, with some contemplating the adoption of new tools and policies
- Stress testing has come under increased scrutiny in the wake of the credit crisis and survey respondents believe that financial services providers need to improve current stress-testing methods

The benefits of ERM

For those financial executives who embrace an enterprise-wide approach to risk the benefits can be plentiful. In our survey, protection against loss and damage to reputation is seen as the most important potential benefit of an ERM strategy.

“An ERM approach is important because it gives clients peace of mind,” says David Martin, Chief Risk Officer at US-based asset management firm, AllianceBernstein. “[Managing] operational risk is a very high component of that peace of mind content.” Clients need to know that their cash is in safe hands. Any blow to that confidence and to the institution’s reputation can have swift—and grave—effects all round.

Executives surveyed for this report also cite more efficient allocation of capital as a clear benefit of an enterprise-wide risk approach, while containing losses is seen as another advantage. By aggregating risks at the same time as maintaining levels of granularity within each of the business units the business can better manage its exposure to these risks. This applies in particular to financial markets risk—a source of vast potential losses from one moment to the next. According to survey respondents this is the most difficult risk to handle because of the growing complexity of financial instruments, the globalisation of the capital markets and the quickening pace of market movements.

New approaches to handling risk

As financial services institutions continue their evolution towards ERM, many are planning to sharpen their existing risk management practices, with some contemplating the adoption of new tools and policies to improve their firms’ levels of sophistication in risk management.

Consider credit scorecards. While these are widely used among financial services firms to manage exposure to loan default and other credit risks, some executives grumble that scorecards cannot prevent massive credit-related losses in an economic downturn. It is a contentious issue across the industry. Indeed 41% of executives surveyed agree or strongly agree that credit scorecards have not been able to adapt to market



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An ERM approach is important because it gives clients peace of mind.

David Martin, Chief Risk Officer, AllianceBernstein

requirements in the current credit conditions, while 44% neither agree nor disagree, and 15% disagree.

In part it is a lack of relevant, timely data that holds back the effectiveness of credit scorecards, according to Peter Nathaniel, Group Chief Risk Officer at Royal Bank of Scotland. He points out the difficulty of keeping behavioural assumptions for scorecards relevant following a long period of favourable economic conditions. "If you haven't had any problems for the last five years, due to exceptional market conditions, is that a good predictor of the future, especially if [the market] worsens?" he asks. "The answer is pretty clearly 'no'."

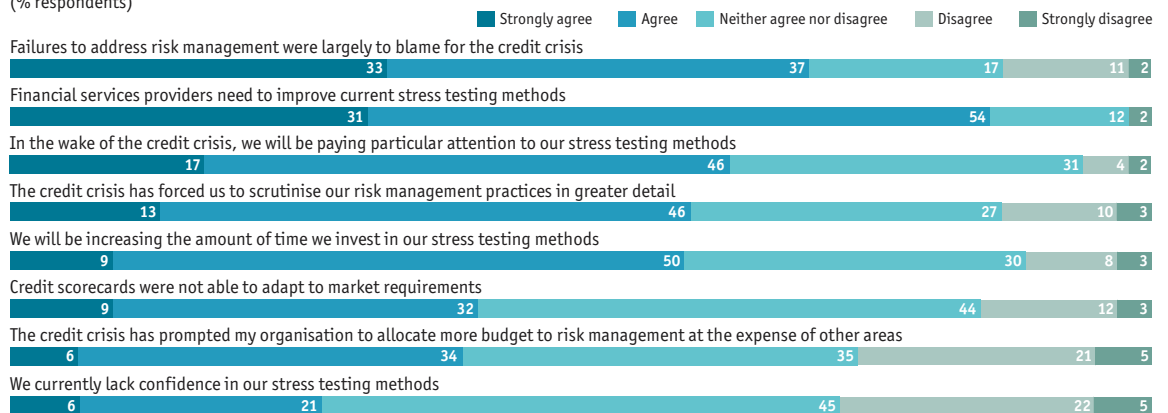
Stress-testing has also come under closer scrutiny since the credit crisis began unfolding last year. Many market participants feel that stress-testing practices are not rigorous enough and that, too often, they are carried out in a silo fashion and do not account for overall risk scenarios. The IIF report recommends that stress-testing should be consistently and comprehensively applied throughout the organisation, enabling multiple risk factors to be analysed and evaluated. In our survey, some 85% of respondents say that they believe that financial services providers need to improve current stress-testing methods, while only 27% of executives indicate that they have full confidence in their own stress-testing practices.

In some cases, it is a lack of uniform data across the business lines that hampers the process; in others it is a complex geographical spread. Often business units in isolation, rather than across all business operations, measure the effect of particular stresses. The FSF, for its part, is urging national regulators to beef up their assessment of stress-testing practices with renewed emphasis on market-wide stresses, off-balance-sheet exposures and the linking of stress tests to contingency funding plans.

Financial services firms are clearly planning action in this area as 59% of respondents say that they will be increasing the amount of time that they invest in their stress-testing methods in the coming 12 months. And 42% of respondents indicate that they plan to integrate risk exposures across the different business lines of their respective institutions. This, says Mr Hill of Standard and Poor's, is how firms should be responding: "The best [stress-testing systems] are ones where various types of risk are effectively aggregated. For example, this involves a single risk factor being aggregated from a number of business lines, undergoing stress-testing processes and then examining which parts of the bank are impacted most, and why."

To what extent do you agree or disagree with the following statements?

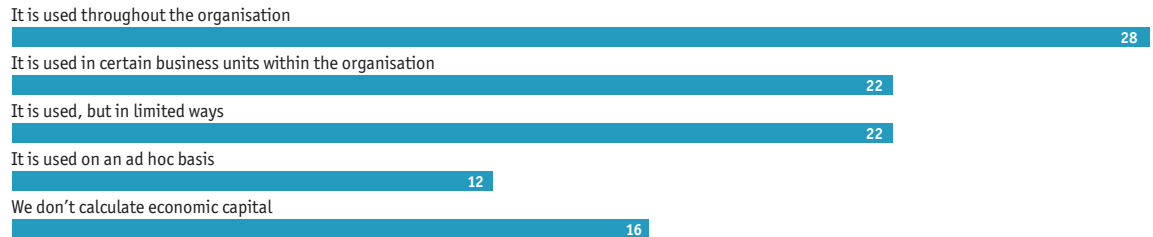
(% respondents)





Which of the following statements best describes your company's use of economic capital?

(% respondents)



One problem with stress-testing, however, seems to be striking a balance between stress scenarios that are too lax and those that are too rigorous. A way of overcoming this is by reversing the stress-testing approach: rather than simulating the effect of specified events on earnings and capital, some firms are specifying a drop in earnings or capital depletion, and deriving event scenarios from that. In other words, firms are asking themselves: what would have to happen to wipe out the firm's full-year earnings, or to deplete its regulatory capital?

The calculation of economic capital is another risk management tool that is destined for more widespread use as financial services firms implement enterprise-wide risk management systems. Among executives surveyed for this report only 28% report that they use economic capital throughout the organisation. However, the measure provides a consistent view of a group's different risks and enables a better allocation of shareholder capital across those risks. This may explain why both regulators and risk managers alike are beginning to embrace it.

One example of a firm doing just this is GMAC Financial Services of the US. Chief Risk Officer, Sam Ramsey, says that the company currently uses economic capital, but in limited ways. More than anything else it is used as an additional, backward-looking measure to pinpoint better where strong returns on risk-adjusted capital are being made. However, says Mr Ramsey, in the not too distant future, "we plan to make it more of a forward-looking decision tool." For Shuaa Capital's Mr Lee an enhanced risk-adjusted approach to economic capital is one of the aims he has in mind as he formulates and implements his firm's risk management strategy.



Key points

- Timeliness and quality of data is one of the main challenges in implementing enterprise-wide risk management, according to survey respondents.
- Senior risk managers at financial services organisations remain aware of the need for human judgement in risk management.
- Creating a culture for risk management is a challenging proposition for financial services organisations. In many cases, it is a shift that happens over several years.

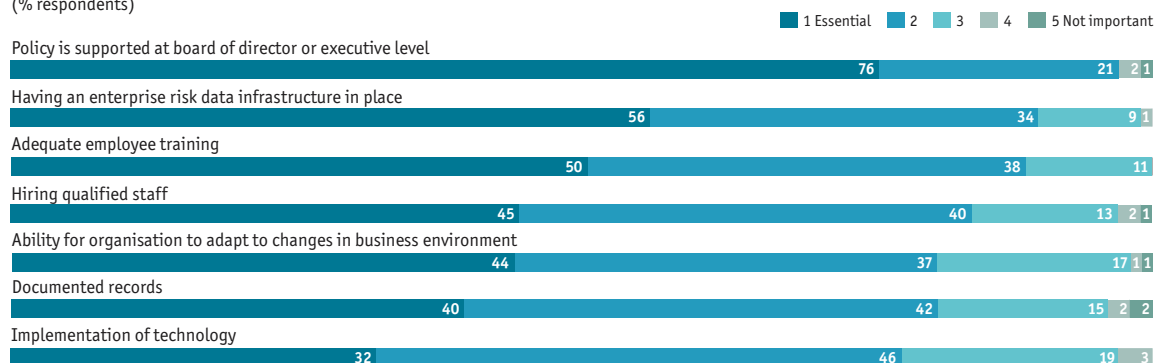
Meeting the data challenge

For some time information has been recognised as one of the main challenges when using risk management tools such as credit scoring, stress-testing and economic capital, and, according to the survey, it still remains a major obstacle. Timeliness and quality of information is highlighted by 44% of executives as being one of the three main challenges in implementing enterprise-wide risk management. As risks and organisations become more complex, the need for a sophisticated data infrastructure to gather and process risk information is becoming more pressing than ever before. Just over one-half of respondents (56%) agree that it is essential to have an enterprise risk data infrastructure in place.

At GMAC Financial Services, an enterprise-wide data infrastructure is top of the firm’s investment priority in the coming year as it moves towards a holistic approach to risk management. Mr Ramsey says that the firm has individual islands of data relevant only for individual business units. He expects to be

How important do you believe each of the following would be in the implementation of a successful enterprise risk management (ERM) strategy?

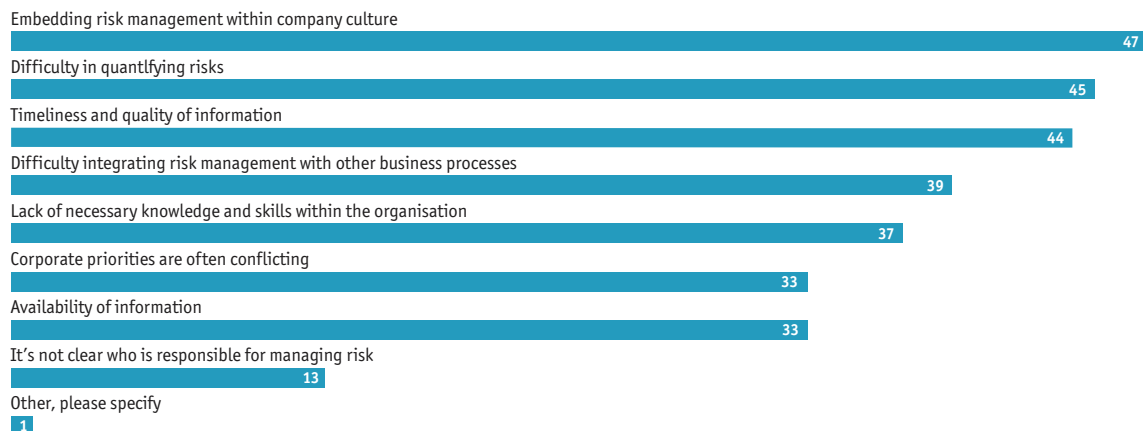
Rate on a scale of 1 to 5, where 1=Essential and 5=Not important.
(% respondents)





What are the three main challenges of adopting an ERM strategy?

(% respondents)



able to aggregate these into a more sophisticated system so that quantitative analytics can be applied to improve the risk/reward equation. “The first step is to make sure we can connect all the islands together and then build an enterprise-wide information warehouse,” he says.

The challenge of data does not end there, however. Once data infrastructure is in place it must be populated with consistent, reliable and timely data. One difficulty for large financial institutions is that information has often been cobbled together as a result of mergers and acquisitions, resulting in definitions and measures that are often inconsistent. Before putting together GMAC Financial Services’ infrastructure, Mr Ramsey has some work to do to bring uniformity to its data. “It is about making sure the definitions [metadata] are the same across [the firm], which they aren’t right now. The data governance part will be the largest step in converting the data.”

Some senior financial executives take a broad-brush approach to converting incompatible information so that it can be aggregated in their systems. Raj Singh, Chief Risk Officer at Zurich-based reinsurance firm, Swiss Re, argues that it is important to figure out what level of data refinement is sufficient for a firm’s needs. As he explains: “You can go for the nth degree of perfection of your data, which is always wonderful to strive towards. But does it really have an impact on your results?”

However sophisticated the risk architecture and however clean the data, senior risk managers at financial services institutions say that they remain aware of the need for human judgement in risk management. Indeed, many agree that an over-reliance on models—and a lack of applied common sense—was a factor in causing the credit crisis. As Mr Martin of AllianceBernstein explains: “It’s very important to understand there’s a lot of judgement in this.”

Mr Nathaniel of Royal Bank of Scotland adds that model-based measurement and monitoring serves as an indicator. “You want the light to flash on top of the box if there’s something wrong,” he says. “When that light flashes in a particular area because of your models and methodology, humans need to step in and make human judgements, based on experience and wisdom. Those models tell you where to look, which box to open up and where to start looking more closely.”



Embedding a risk management culture

While data may provide a foundation for enterprise-wide risk management, it is plain people who manage the risk. No wonder, then, that most large financial services firms say that the key to success in enterprise-wide risk management is driving awareness and knowledge of risk management throughout the organisation—such that risk management becomes part of the fabric of the institution. This does not happen overnight; in many cases it is a shift in culture that happens over several years.

Naturally that starts at the top with the management board. Of those surveyed 76% say that it is essential for risk policy to be supported at board of director or executive level. Axel Lehmann, Chief Risk Officer of insurance provider, Zurich Financial Services, observes that “if the board as a whole assumes full responsibility for strategy, the risk profile and risk issues of the firm, then it’s important to make sure there is a dedicated team that is really having a look at these”.

Often this takes the form of a group risk committee. An important element of the communication and discussion of risk issues is the use of regular reports from the risk committee and other risk management meetings.

In those surveyed institutions with assets of more than \$100bn over one-half of respondents (55%) say that they have a dedicated chief risk officer who has primary responsibility for risk. In institutions with less than \$100bn in assets it is just 27%. Still it is apparent that the ranks of risk executives are swelling, with firms in less developed markets beginning to catch up with those in leading financial centres. This suggests that chief risk officers will increasingly be making their presence felt at the boardroom table; where they do not sit on the management board their lines to the chief executive officer (CEO) or the board are likely to be cemented by means of a formal and regular reporting requirement.

Most executives interviewed for this report agree that sophisticated knowledge of risk management issues is needed across all business lines, from the front-line business units up to the management board, if an enterprise-wide approach to risk management is to succeed. As AllianceBernstein’s Mr Martin puts it; “When the portfolio manager makes a decision, he is the risk manager. He thinks about the risk management implications of that decision.”

This does not come easily. Executives who responded to this survey indicate that the toughest challenge in enterprise-wide risk management is embedding risk awareness into the institution’s culture.

If the board assumes responsibility for the risk issues of the firm, then it’s important to ensure there is a team having a look at these.

Dr Axel Lehmann, Chief Risk Office, Zurich Financial Services

To what extent do you agree or disagree with the following statements?

(% respondents)





Among the difficulties that need to be addressed is a reluctance to change, or a reluctance to assume the responsibilities of risk management. “You see a lot of line managers delegate parts of risk management to the risk organisation and they feel that ‘I run my shop here, and somebody else is taking care of the risk’, and basically raising a flag when something is going wrong,” says Zurich Financial Services’ Dr Lehmann. “That is the wrong setup.”

It can fall the other way too. In reinsurance, says Swiss Re’s Mr Singh, every underwriter in the front office believes that their job is risk management, because they are underwriting risk. While he says that this is positive, he also points out that it can create conflict because some underwriters believe that they have a better grasp of risk issues than the experts in the risk management function.

Around one-half of the survey respondents say that company objectives, policies and tolerance for risk are clearly communicated through the organisation. In communicating risk management issues throughout the firm, between the risk function and the business units, senior executives believe that solid reporting lines help. Many firms have local risk officers—or even local risk committees—in business units to support line management and ensure that risk management practices are followed consistently across the firm. Business units tend to take risk more seriously if they know a risk report regularly lands on the chief executive officer’s desk. “If the executive committee of the group is looking at the right risk issues, it prevails downwards,” says Mr Singh.

Risk managers have other means at their disposal too. Of those surveyed, 48% say that they have used formal training programmes and conferences to improve understanding and implementation of enterprise risk management. Swiss Re, for example, relies on strong information flow and communication via its corporate intranet and through regular publications, both internal and external.

Enterprise risk management (ERM) and shareholder value

According to this survey, financial services executives see a range of benefits when implementing an ERM strategy. Some of these, such as reduced losses, may feed through to the institution’s enterprise value—in theory. In practice, though, does the market assign a valuation premium to firms that are implementing enterprise-wide risk strategies?

Two US academics, Robert E Hoyt of the University of Georgia and André P Liebenberg of the University of Mississippi, put this to the test. In their research they focused solely on insurance firms in the US, in order to control for possible regulatory and market differences across specific sub-sectors and geographies.

Having determined which US insurers have an enterprise-wide approach to risk, Mr Hoyt and Mr Liebenberg then modelled a proxy for the firm’s enterprise value as a function of ERM use and cleaned the findings by accounting for other influencing factors. Their results suggest an

enterprise-wide risk management premium of 17% of firm value.

Publishing their preliminary findings in a January 2008 study, *The Value of Enterprise Risk Management: Evidence from the US Insurance Industry*, Mr Hoyt and Mr Liebenberg offer five explanations for this premium:

- firms that engage in ERM have a more objective basis for resource allocation, thus improving capital efficiency and return on equity;
- ERM enables complex firms to better inform outsiders of their risk profile and also serves as a signal of their commitment to risk management;
- the focus of rating agencies on ERM as part of their financial reviews suggests a potential value implication to the existence of ERM programmes in insurers;
- by integrating decision making across all risk classes firms are able to avoid duplication of risk management expenditure by exploiting natural hedges; and
- interdependencies between risks across activities might go unnoticed in silo risk management; ERM enables the identification of risk interdependencies.



Conclusion

The credit crisis exposed some significant weaknesses within financial services organisations. Many firms overestimated the market's ability to absorb risk and lacked the necessary metrics to help them understand the full impact on their business. With economic uncertainty and financial market instability set to continue, financial services firms must work harder than ever to address current risk issues and improve their risk methodologies and infrastructure.

Recommendations from bodies such as the IIF and the FSF are likely to push in particular for individual financial services firms to adopt industry best practice in stress-testing, an area where the credit crisis has highlighted significant failings. There are also strong indications that regulatory scrutiny will increase the pressure on companies to implement ERM strategies and supporting infrastructure. Financial services firms will also need to assess their liquidity needs at an enterprise-wide level to be better prepared for instances where market liquidity will erode quickly and unexpectedly.

However, as companies move forward in their implementation of enterprise-wide risk management strategies, their approach will not stop at supporting risk infrastructure and processes. Executives interviewed for this report say that in order for ERM to be successful it must be deeply embedded in the culture of the organisation.

While the development of methods, infrastructure and risk tools to support an ERM strategy are in place in many companies, much work needs to be done to ensure that these are put into practice. Against a background of changing economic conditions, significant investment will be necessary to enable organisations to meet the challenges experienced thus far in the credit crisis and to prepare for future shocks.

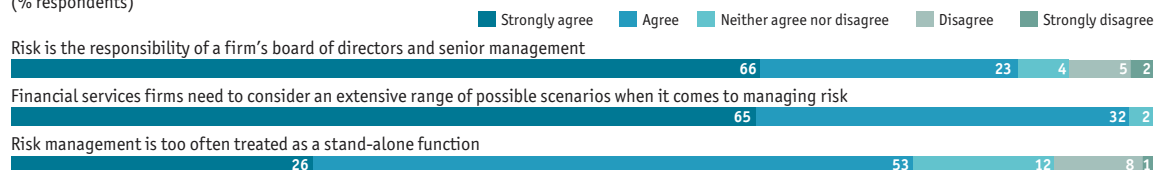
Appendix: Survey results

In July 2008, the Economist Intelligence Unit conducted a survey of 316 senior executives around the world. Our sincere thanks go to all those who took part in the survey.

Please note that not all answers add up to 100%, because of rounding or because respondents were able to provide multiple answers to some questions.

To what extent do you agree or disagree with the following statements about risk management?

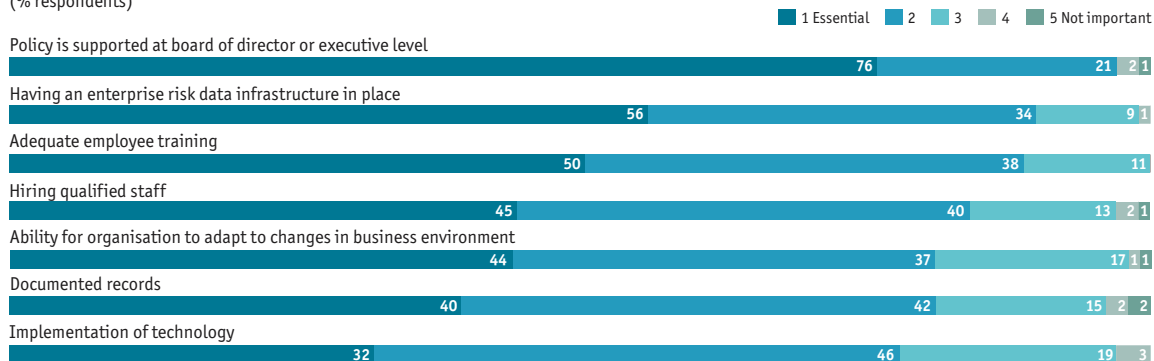
(% respondents)



How important do you believe each of the following would be in the implementation of a successful enterprise risk management (ERM) strategy?

Rate on a scale of 1 to 5, where 1=Essential and 5=Not important.

(% respondents)



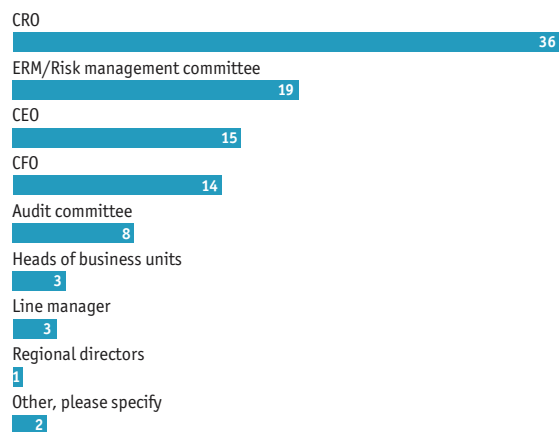
In your opinion, what are the three main challenges of adopting an enterprise risk management (ERM) strategy?

Select up to three
(% respondents)



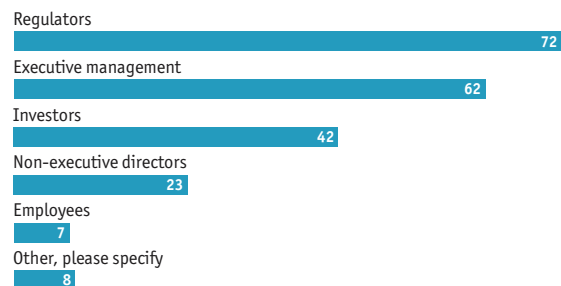
Who in your organisation has primary responsibility for overseeing risk management activities?

(% respondents)



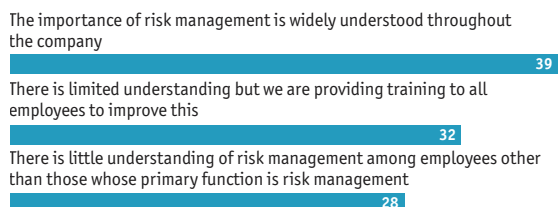
Which of the following stakeholders are currently exerting pressure on your organisation to implement or refine an enterprise risk management (ERM) strategy?

Select all that apply
(% respondents)



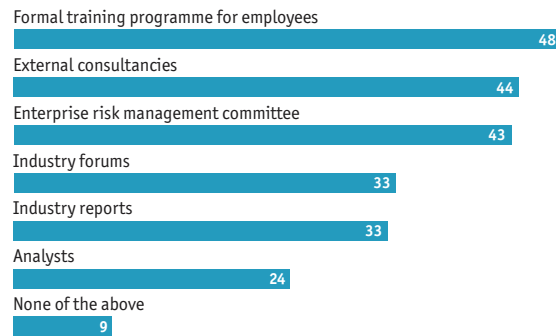
Which of the following best describes the level of understanding of risk management within your business?

Please select the answer that most closely corresponds with the situation in your company
(% respondents)



What resources have you used to improve your business' understanding and implementation of ERM?

Select all that apply
(% respondents)



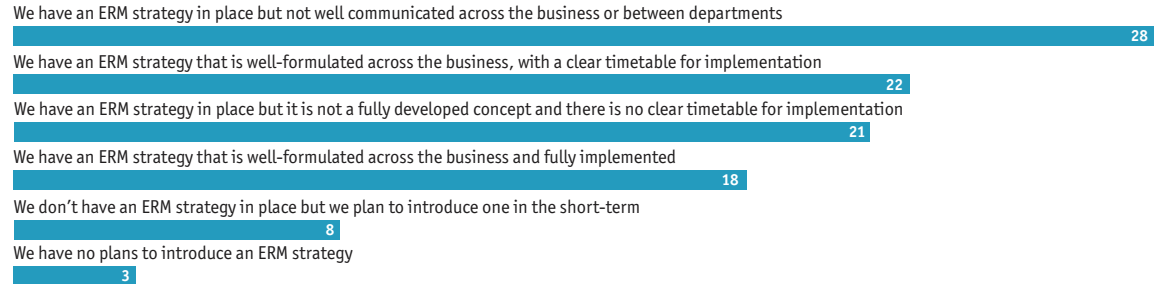
Which of the following do you believe are the most important potential benefits of an ERM strategy?

(% respondents)



Which of the following best describes your company's approach to ERM?

(% respondents)



Please rate the following issues in terms of the challenge they pose to your business.

Rate on a scale from 1 to 5, where 1=Significant challenge and 5=Not a significant challenge

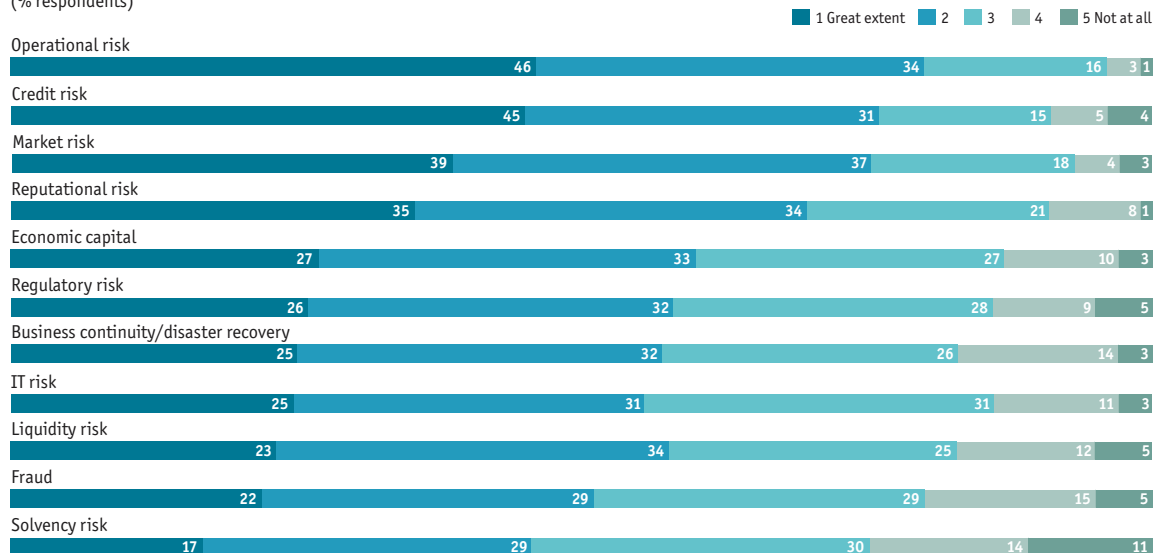
(% respondents)



To what extent do you believe an ERM strategy could help your business address these issues?

Rate on a scale from 1 to 5, where 1=Great extent and 5=Not at all

(% respondents)



In which one area of risk has your business invested the most over the last 12 months?

(% respondents)



In which one area of risk will your business invest the most in the next twelve months?

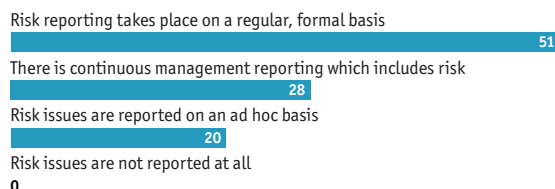
(% respondents)



Which of the following best describes the way risk management is reported within your organisation?

Please select the answer that most closely corresponds with the situation in your company

(% respondents)



To what extent do you agree or disagree with the following statements?

(% respondents)



To what extent do you agree or disagree with the following statements?

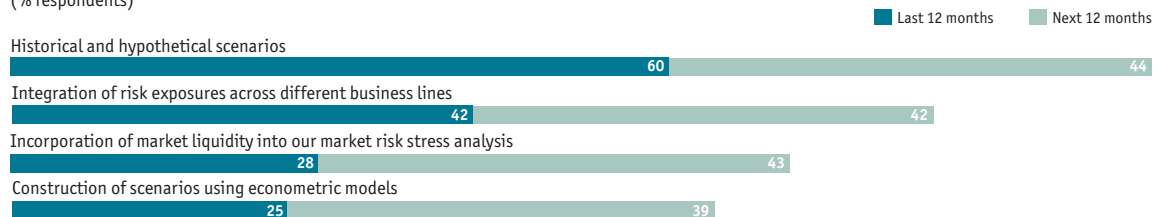
(% respondents)



Which approaches to stress testing have you have used in the last 12 months? And which approaches will you use in the next 12 months?

Select all that apply

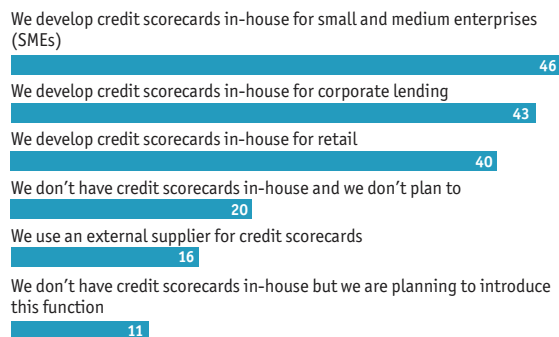
(% respondents)



Which approaches to credit scoring does your business use?

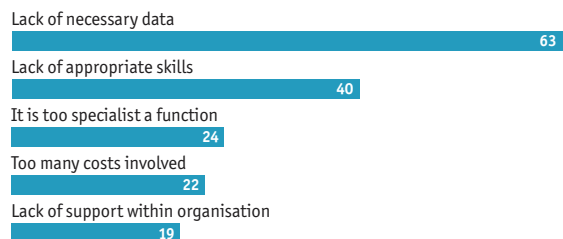
Select all that apply

(% respondents)



In your opinion, what factors make it difficult to build credit scoring internally? Select all that apply

(% respondents)



Which of the following statements best describes your use of economic capital? Please select the answer that most closely corresponds with the situation in your company (% respondents)

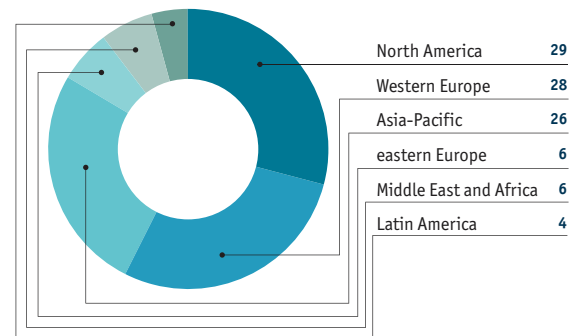


In which three areas of your business would you expect enterprise risk management to have the greatest impact? Select up to three (% respondents)



About the respondents

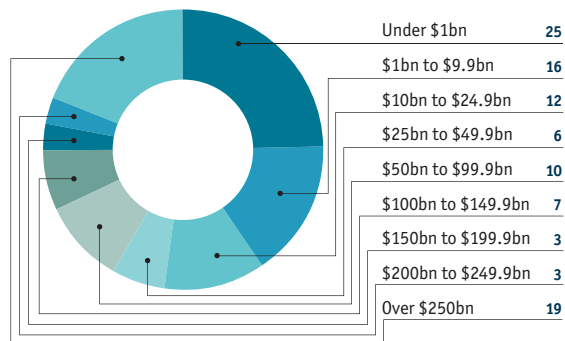
In which region are you personally based? (% respondents)



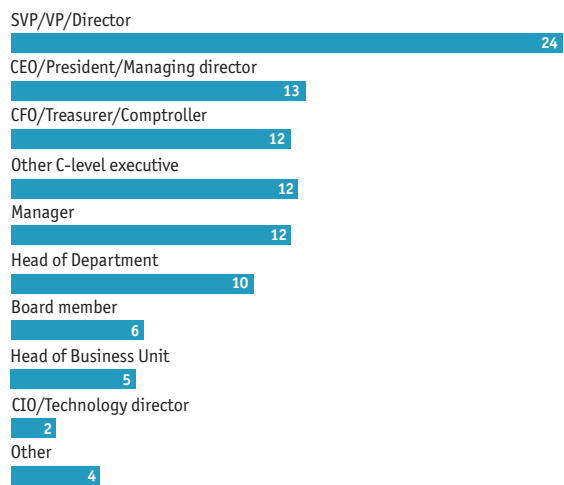
What is your main functional role? (% respondents)



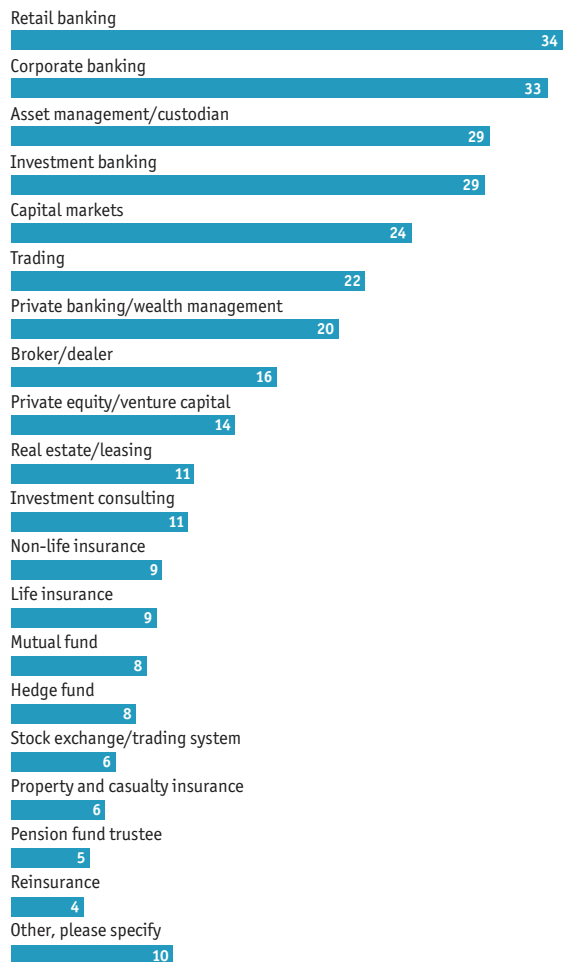
What are your organisation's global assets in US dollars?
(% respondents)



Which of the following best describes your title?
(% respondents)



In which sub sector of financial services does your organisation operate? Select all that apply
(% respondents)



Whilst every effort has been taken to verify the accuracy of this information, neither The Economist Intelligence Unit Ltd. nor the sponsor of this report can accept any responsibility or liability for reliance by any person on this white paper or any of the information, opinions or conclusions set out in the white paper.

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