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Never again?

Risk management in banking beyond the credit crisis

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Foreword

The credit crisis has forced banks to take a critical look at how they manage risk and has exposed some significant weaknesses in risk management across the financial services industry.

The collapse of several high profile banks, the emergency bail out of others, departures of CEOs and CFOs, the hundreds of billions of dollars of write-downs, efforts by banks to raise fresh capital were all signs that something had gone very badly wrong.

On first examination, the current predicament appears to stem from the pursuit of revenue growth in a world of easy credit. The reality of course is more complex and a number of themes emerge from the survey findings: weaknesses in risk culture and governance; gaps in risk expertise at the non executive Board level; lack of influence of the risk function; lack of responsibility and accountability of those on the front line; a compensation culture too oriented towards year on year profit increases; business models that were overly reliant on ample market liquidity.

Above all this has been a crisis of judgment on the part of many banks, with an apparently excessive focus on short-term gain and a lack of healthy skepticism.

All risks are interconnected

The crisis has also driven home the interdependencies in the global banking system, both at a micro level within organizations and at a macro level across the industry. The world has witnessed a tragedy played out in two acts: the first stage hit those banks that had either lent to the US sub prime market or took on derivatives of these loans; the second stage has effectively hit almost every financial institution, with the inter-bank lending market drying up as confidence evaporated from the banking system.

To some extent, banks have become victims of their evolution. A series of mergers and acquisitions have helped to create more complex structures, with a plethora of products and systems that have often not been integrated, making it considerably harder to understand the full extent of the risks that had been taken on across all business lines.

This has not been helped by a wave of sophisticated products that have often proved difficult for both buyers and sellers to fully understand. Poor internal circulation of information has often further contributed to blurring banks' view of their overall risk exposure, with certain parts of an organization frequently unaware of activities and exposures in other areas; a situation that may have been exacerbated by the peripheral role of what in some cases were ineffective risk functions.

Addressing risk governance at all levels

The shortage of risk expertise at the Board level – also highlighted in the survey – is something that is currently being debated in the industry. In the same way that US company Boards require someone on the audit committee with an accounting background, there may one day also be a similar requirement for risk professionals. A number of bank Board members are from outside the industry and, as the survey responses show, have varying degrees of risk management expertise or understanding. Many of the better performing institutions over the past 18 months have greater depth of risk experience at Board level.

The skills gap is not confined to the upper echelons. Many of those responsible for originating transactions seem to be out of tune with the organizational risk appetite, not fully accountable and either unwilling or unable to make measured judgments on the level of exposure they're taking on.

Remuneration policy undoubtedly influences behavior and despite many banks operating long-term incentive and compensation policies closely linked to share price, many compensation structures have arguably encouraged the pursuit of short-term profit over long-term shareholder value. The media has been quick to blame incentives for the crisis, and with a number of national governments taking part or complete ownership of banks, it is likely that there will be increasing involvement by the regulators in the setting of reward policies.

Towards holistic risk management

The crisis has highlighted an urgent need for improved enterprise wide risk management procedures where, as Kevin Blakely, President and CEO of The Risk Management Association succinctly puts it: "The right hand knows what the left is doing."

By following this path, banks should bring greater judgment to decision making, based on a clear understanding of the products and the risks involved. In the new risk culture, everyone should consider him or herself a risk manager with a shared understanding of the organizational risk appetite, underpinned by a clear governance structure for managing risk, incorporating 'three lines of defense': the first line being the business unit; the second the independent risk management function itself; the third internal audit.

Such an approach offers appropriate checks and balances and should be supported by a compensation policy that is firmly tied to shareholder value over the full period of any transactions involved.

Qualitative judgment should also take precedence over the recent reliance on purely quantitative data, which should support rather than dominate decision-making. Models should be forward looking and not rooted purely in historic data. Even the most complex product propositions ought to be presented in a way that makes them intelligible to the Board, external stakeholders and indeed customers.

As the risk function takes center stage and gets more involved in major strategic and product decisions, it also needs to retain its independence in order to offer an objective judgment on any risks that the organization may take on.

About this survey

In this October 2008 survey, carried out by the Economist Intelligence Unit and involving over 500 senior managers involved in risk management from leading banks around the world, respondents were asked to identify the weaknesses in risk management that contributed to the crisis and the actions being taken by the industry to prevent such a catastrophe reoccurring.

Some of the pressing issues covered include:

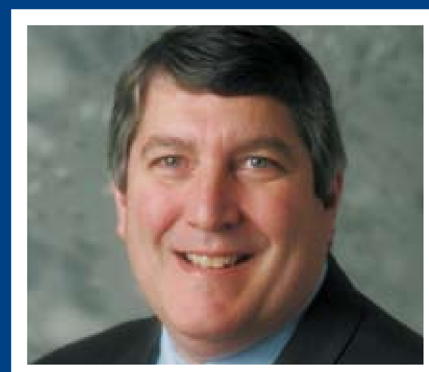
- The effectiveness of risk-governance and culture
- The changing influence of the risk function
- The level of risk expertise firm wide
- The impact of incentives and compensation policies
- The way risk is measured and reported

The results – which are augmented by comment – should provide a useful contribution to the debate on how banks can create a well-governed risk management infrastructure with the flexibility to stand up to future volatility.

We would like to thank all those that were generous enough to take part in this survey at a time when their resources are stretched by the ongoing troubles in the marketplace.

Jörg Hashagen
Partner and Global Head of Financial Risk Management, KPMG Germany

Nigel Harman
Partner and Head of Financial Risk Management, KPMG UK



Michael Conover
Partner, New York Leader of Financial Risk Management

Executive summary

Many of the banks participating in KPMG's global survey acknowledge that a lack of discipline in risk management was a contributory factor in the credit crisis. Although most are taking steps to address any weaknesses in their management of risk, the results suggest a potential lack of commitment to the kind of elemental change that may be necessary to avoid a repeat of recent events.

- **Despite improving its profile, the risk function is still struggling to gain influence**
  Seven out of ten respondents feel that risk departments are having a greater influence within banks, particularly at a strategic level. However their involvement in more day-to-day business decisions may be restricted by poor communication with the lines of business. More worryingly, a vast majority (76 percent) of those involved in managing risk still feel that, despite raising its profile, risk is stigmatized as a support function.

- **Banks are not addressing the lack of risk expertise at senior levels**
  Under half (45 percent) of the banks in the survey acknowledge that their Boards are short of risk knowledge and experience – a lower figure than may have been expected. It is of some concern that many are not even planning to address this issue – particularly at the non-executive level where the need for expertise is most acute. With a quarter of respondents seeing no need for a Risk Committee, many organizations could be lacking a rigorous, independent challenge to the judgments being made in the businesses.

- **To change risk culture, banks should lead from the top**
  The survey reveals the vast majority of those responsible for managing risk (77 percent) are dedicated to instilling a more robust risk culture in their organizations and feel that greater "tone from the top," along with a more authoritative risk function, are two of the keys to such a transformation. Some respondents expressed concern that regulators – rather than non-executive directors – are driving change. This further supports the perception that – in certain institutions – risk may still be seen as a peripheral "compliance" issue, rather than an essential part of strategy.

76%
of senior risk managers still feel risk is stigmatized as a support function

45%
of the banks in the survey acknowledge that their Boards are short of risk knowledge and experience

Ninety two percent of those surveyed have carried out – or are about to carry out – a review of the way they manage risk. Tellingly, only 42 percent have made or plan to make fundamental changes to their risk management processes, suggesting a degree of complacency. The main areas being addressed are risk governance, risk culture and reporting and measurement of risk; the three key building blocks of a risk infrastructure.

- **Poor communication was not to blame for the credit crisis**
  Only a fifth of respondents feel that a "silo" mentality contributed to the current turmoil in the industry, yet a majority acknowledge that communication between different parts of the business needs to improve. Banks are particularly concerned about improving links with the lines of business – those on the front line who have to consider the risks they take on, whether it's making trading decisions or developing new products.

- **Banks want to provide better information for decision making**
  Almost eight out of ten respondents are seeking to improve the way that risk is measured and reported, a clear acknowledgement that previous models did not sufficiently measure potential risk exposure. Their emphasis will be on stress and scenario testing, along with Basel II credit models, but it remains to be seen whether such measures will be either flexible or sophisticated enough to fully capture the range of possible outcomes.

- **Risk managers appear reluctant to tackle incentive and compensation issues**
  Despite acknowledging that the rewards culture has had a big impact upon the current crisis, the majority of those responding are cautious about increasing the involvement of either regulators or the risk function itself in setting policy. This suggests that risk managers are uncertain of their role in this critical area.

92%

of those surveyed have carried out – or are about to carry out – a review of their risk management

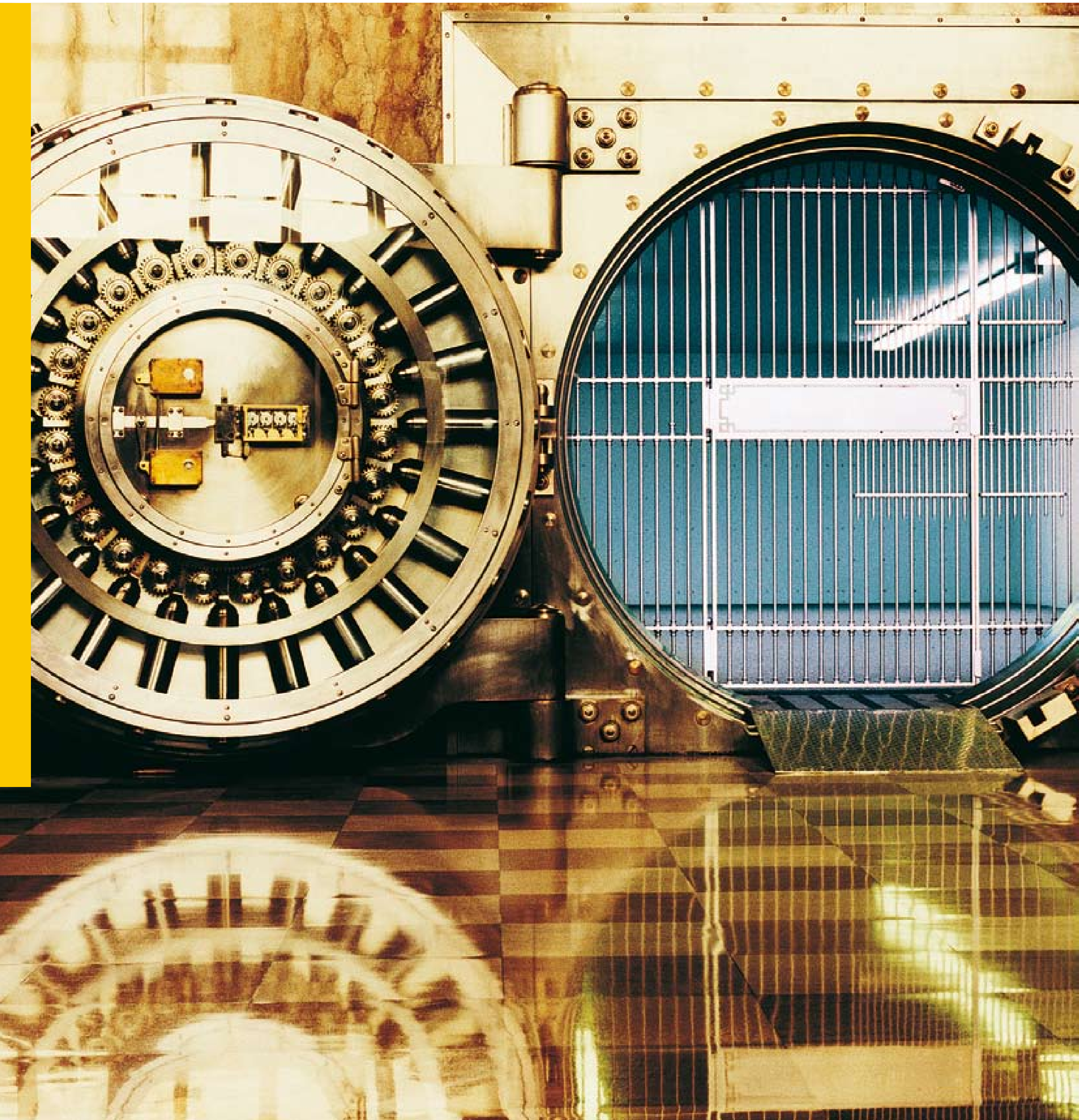
36%

of respondents feel that regulators should play a role in remuneration

"The risk committee should oversee the active acceptance of risk within the organization."

Kevin Blakely, President and CEO, The Risk Management Association

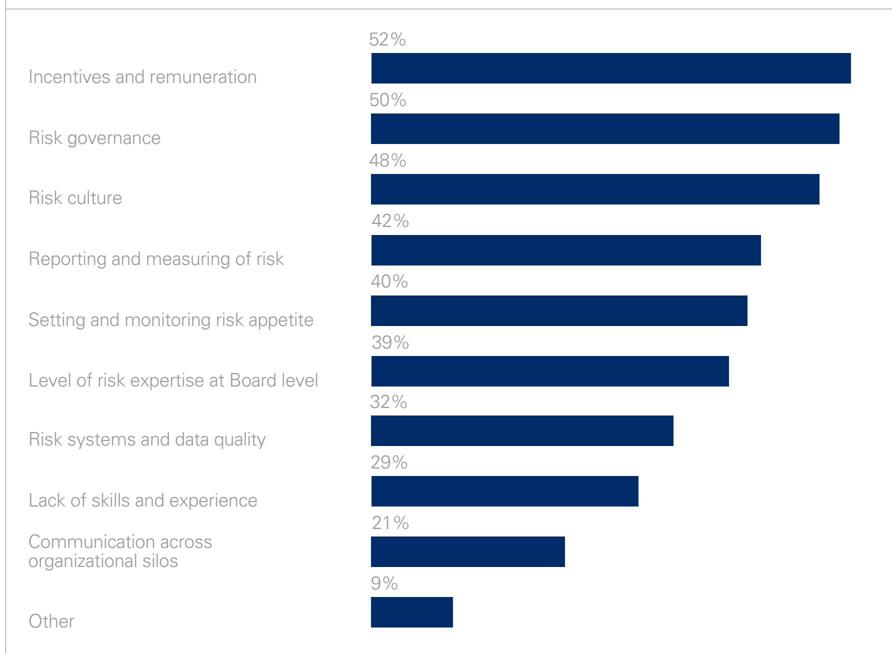
Rethinking banks' approach to risk management



In the run up to the credit crisis, banks' risk governance, risk culture and incentive and remuneration policies were the three areas where the management of risk let them down the most, according to KPMG's 2008 global survey.

The majority of Chief Risk Officers (CROs), risk professionals and other senior managers taking part in the survey acknowledge that the industry as a whole had an inadequate framework for controlling risk. They also admit that the prevailing organizational culture did not stop excessive risk taking, fuelled by a system of profit-based rewards that failed to protect the needs of depositors.

However, somewhat surprisingly, a majority (almost six out of ten) of banks still consider their own risk governance and culture to be effective, suggesting that some have yet to acknowledge their own role in the troubles that have embraced the sector.



Respondents were allowed multiple responses. Source: 2009, KPMG International

52%

of respondents say incentives and remuneration policies contributed to the credit crisis

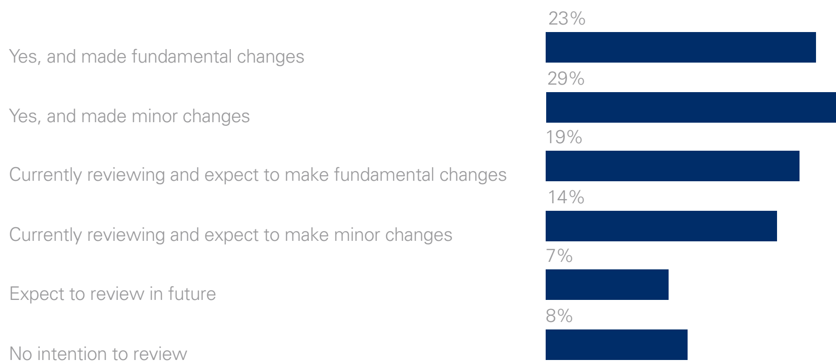
Rethinking banks' approach to risk management, continued

Are banks taking sufficient action to improve risk management?

The survey indicates that many banks are taking positive steps to overcome these weaknesses; around half of those participating have already reviewed the way they manage risk, with most of the remaining respondents either involved in or about to start a review. However, only four out of ten have made or intend to make fundamental changes, which is perhaps lower than may have been expected and could indicate an unwillingness to take specific and decisive action in tackling the weaknesses that led to the credit crisis.

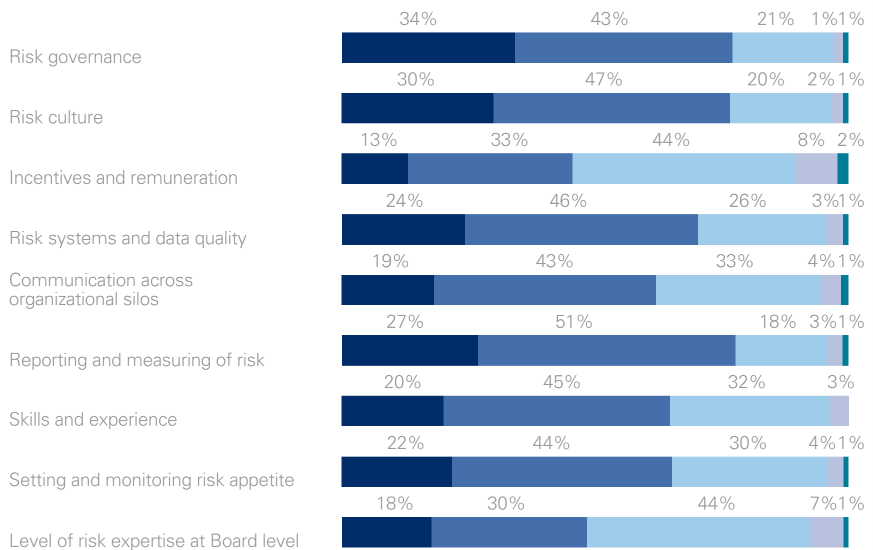
Regardless of the degree of change anticipated, a majority of respondent banks are seeking to tighten up their overall risk management. Governance and culture are both high on the agenda as they attempt to put in place more effective policies, procedures and controls and make staff more aware of enterprise-wide risks when facing key business decisions. There is also considerable focus on improving the way that risk is reported and measured – as well as the systems and data that underpin such analysis. This is recognition that managers across the business units did not have sufficiently robust data when making some of the decisions that led to the present troubles.

Chart 2 Have you reviewed risk management in your organization?



Source: 2009, KPMG International

Chart 3 How will you change your attention to the following over the next year?



Source: 2009, KPMG International

42%

of respondents have made or expect to make fundamental changes to risk management

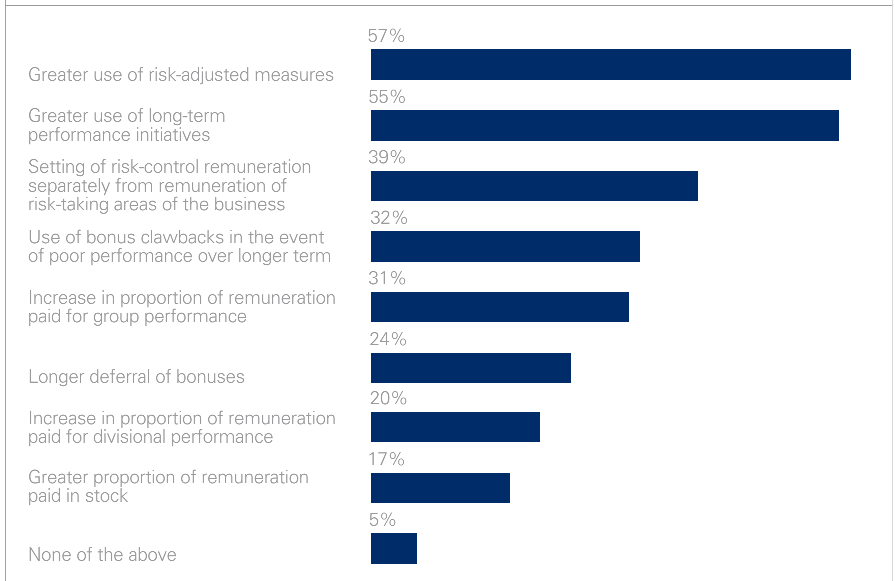
Risk management has not been closely aligned with compensation policy

Despite being cited in the survey as the single biggest contributor to the current crisis, less than half (46 percent) of the respondents are planning a significant increase in attention to this issue. There appears to be some uncertainty over the role of the risk management function in developing and managing compensation policy.

This is not to say that respondents do not support reform to compensation: almost six out of ten favor greater use of long-term incentives; and a similar proportion want to expand the practice of risk-adjusted measures. Other proposals, such as longer deferral of bonuses and an increase in proportion of remuneration paid for divisional performance attract less interest.

In a further twist, the risk professionals involved in this survey are also cautious about any external pressures on rewards and incentives, with just over a third (36 percent) agreeing that regulators should become more involved in the setting of remuneration in the banking industry.

Chart 4 Which of the following remuneration initiatives would you support in your organization?



Respondents were allowed multiple responses. Source: 2009, KPMG International

Rethinking banks' approach to risk management, continued

KPMG comment:
The need for truly integrated risk management

The credit crisis brings many banks' overall risk governance into question, with some lacking the framework, the policies or the necessary capabilities to achieve a clear picture of the risks they are facing across the organization.

In growing the business, executive teams should try to ensure that all employees are aware of and involved in managing risk, with senior management setting the overall strategic direction and embedding risk management philosophy across the business, ensuring that risk can be measured, reported and managed. They should also provide clear guidance reflected in explicit policies and procedures and a clear expectation of compliance with these.

Strong performers tend to have clear lines of communication, with the risk management function integrated into the business, allowing insights and industry best practice to be shared.

Risk management responsibilities should be streamlined so that risk can be owned and managed within the business unit, but quickly escalated through the risk management function and business units to the Board and its relevant committees where necessary. When they are working well, these "three lines of defense" give primary responsibility for risk management to the client-facing areas of the business; support functions review and check that risks are accepted in line with the institution's policies and appetite; and finally internal audit provides assurance that the internal controls and risk management are operating as expected.

Reliable quantitative and qualitative information should feed up from the business units to senior management and the Board and be delivered to decision makers in a timely fashion.

How should risk professionals influence compensation incentives?

In an October 2008 letter to CEOs of leading financial companies[1], the UK Financial Services Authority (FSA) noted that firms possibly "…frequently gave incentives to staff to pursue risky policies…to the detriment of shareholders and other stakeholders."

The FSA wants to see wider use of increased deferral of annual bonuses and the delivery of incentives in shares rather than cash, with performance measures linked to risk. The letter makes a case for the risk function to have a "…strong and independent role for setting compensation for the business areas."

According to Kevin Blakely, President and CEO of The Risk Management Association, this means acting as an agitator rather than an administrator: "Compensation is the responsibility of the Board, the compensation committee and the CEO, but the CRO should have a direct input into policy to ensure that risk is taken into consideration."

In a separate report, the Institute of International Finance established a special Committee on Market Best Practices (CMBP)[2], which also argues for compensation incentives to be based on performance and aligned with shareholder value and long term, organization wide profitability. It also suggests that compensation incentives should in no way induce risk taking in excess of the organization's risk appetite and that the payout of bonuses should be closely related to the timing of risk adjusted profit.

Although some of the casualties of the current crisis claim to have very long-term incentive plans that are directly linked to share price, this does not appear to be consistent across the industry. With many banks under partial or complete government ownership, banks are likely to be under considerable political pressure to show regulatory bodies that their compensation and incentive systems are risk based.

1. Letter from Hector Sants, Chief Executive, Financial Services Authority to CEOs of leading financial services companies, October 13, 2008.

2. Report of the Institute of International Finance (IIF) Committee on Market Best Practices (CMBP), July 2008.

The emerging influence of the risk function

76%

of respondents still feel risk is stigmatized as a support function

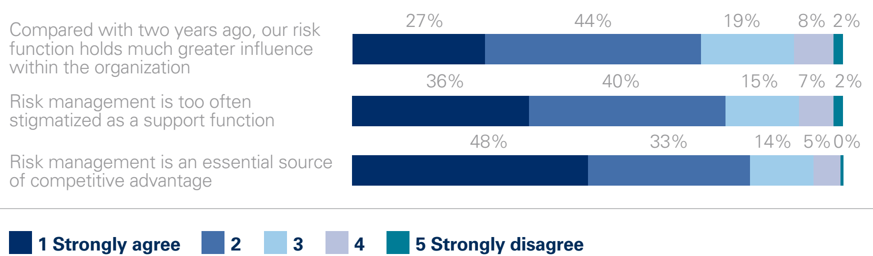
The survey suggests that although risk management is slowly starting to play a more central role in banks' decision-making structures, many respondents feel that risk has still to shed its traditional image as a support function.

The growing importance of the risk function in banking is reflected in our findings. Seven out of ten taking part believe that the risk function holds much greater influence than two years ago and eight out of ten see the way they manage risk as a source of competitive advantage (as opposed to merely providing checks and balances). Yet it seems that there is still a long way to go, with the vast majority concerned that risk management continues to be stigmatized as a back room function.

Encouragingly, two of the areas where the CRO or equivalent is starting to exert considerably greater authority are strategy development and capital allocation. This is a logical development as banks seek to integrate risk and capital into their planning to ensure they do not over stretch their capacity in pursuit of profit. Six out of ten survey participants feel that the CRO should have even more influence over the development of strategy, although in light of recent events this figure could arguably be even higher. Overall it appears that the desire to manage risk at a strategic level has not fully filtered down to more practical issues.

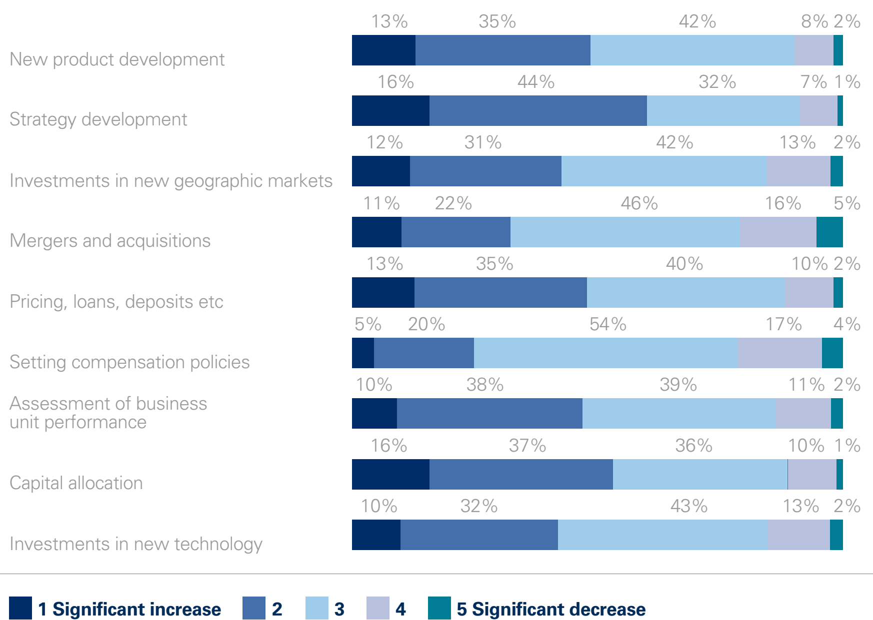
Although banks may be concerned about the apparent lack of involvement of the CRO in mergers and acquisitions, much of this is probably due to a relative lack of deals over the previous two years. However, the recent increase in activity in this area – with the more stable institutions buying out their troubled compatriots – calls for rigorous risk assessment of purchase targets.

Chart 5 How is risk management viewed in your organization?



Source: 2009, KPMG International

Chart 6 Change in degree of influence held by your CRO/head of risk (in the past year)



Source: 2009, KPMG International

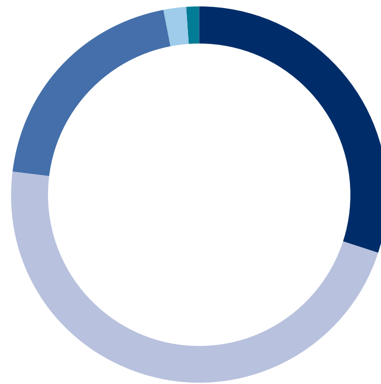
The emerging influence of the risk function, continued

Building a stronger risk culture

Nearly eight out of ten (78 percent) survey participants claim they will be striving harder to improve their risk culture and feel that the single most effective way to achieve this is through clear leadership from senior executives. Those respondents working at the "C" level (CEO, COO, CFO, CRO, etc) are particularly keen on establishing what is referred to as greater "tone from the top".

In a further reference to the often-marginalized role of risk professionals, half of those we surveyed believe that cultural change would be hastened by giving the function greater authority in the organization. Despite the fact that employee rewards are not high on the agenda of the CRO, there is at least some acknowledgement that the way staff are rewarded has a big impact on culture, with four out of ten arguing for incentives linked to effective risk management.

Chart 7 Expected change in attention to risk culture (over the next year)



Significant increase	30%
Slight increase	47%
Neither increase nor decrease	20%
Slight decrease	2%
Significant decrease	1%
Total	**100%**

Source: 2009, KPMG International

> "In many banks, the right hand side didn't know what the left hand was doing."
>
> Kevin Blakely, President and CEO, The Risk Management Association

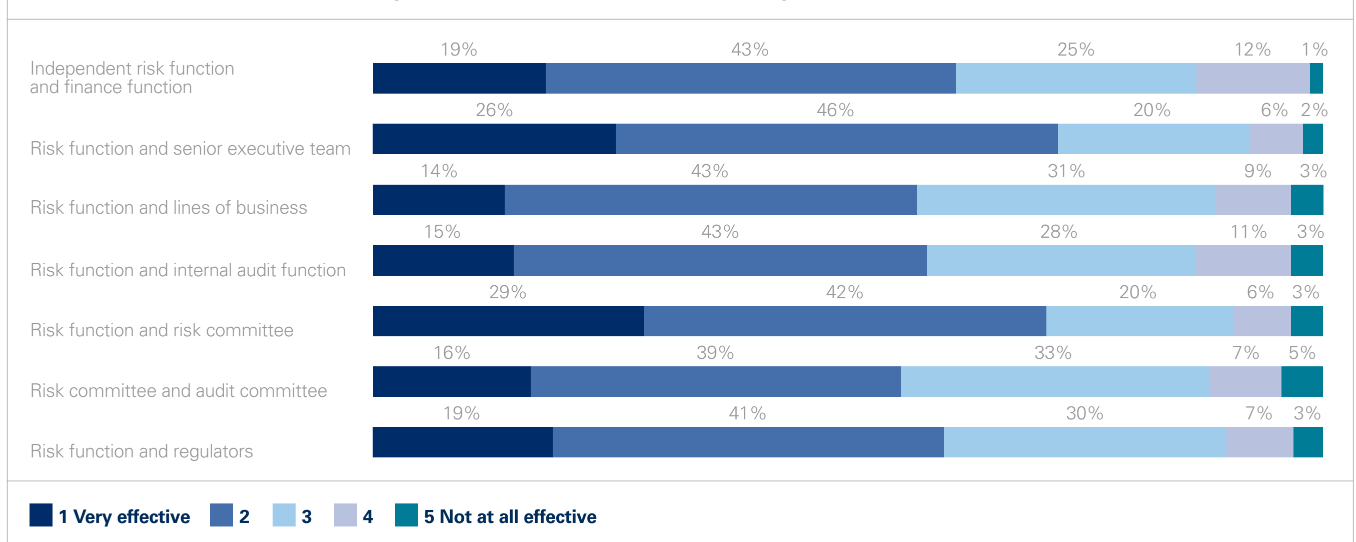
Communicating with the rest of the organization

When asked to list the factors that contributed to the current predicament in the industry, less than two in ten banks (18 percent) feel that a lack of effective communication across organizational silos played a part. However the respondents do recognize the need for improvement, with "better communication between the risk function and the business" being seen as one of the most important ways to improve overall risk management, with a majority committed to making such changes.

A more detailed look at communication and information sharing across the business reveals a number of inconsistencies that could affect the management of risk. The risk function claims to have developed much closer relationships with the senior executive team and the Risk Committee, suggesting that those involved in major strategic decisions are likely to consider the wider implications for the business.

However, there is also evidence that such high-level risk management is not carried down to operational level; respondents admit that there is room for greater interaction with the lines of business and internal audit, and also between the risk committee and the audit committee. Such a weakness in communication enables business unit managers to take on large risks without consulting further up the management chain. Furthermore, with internal audit expected to play a greater role in risk management as the third line of defense, senior managers will want to sloser relationship between the internal audit and risk functions.

Chart 8 Communication and sharing of information between the following function/teams



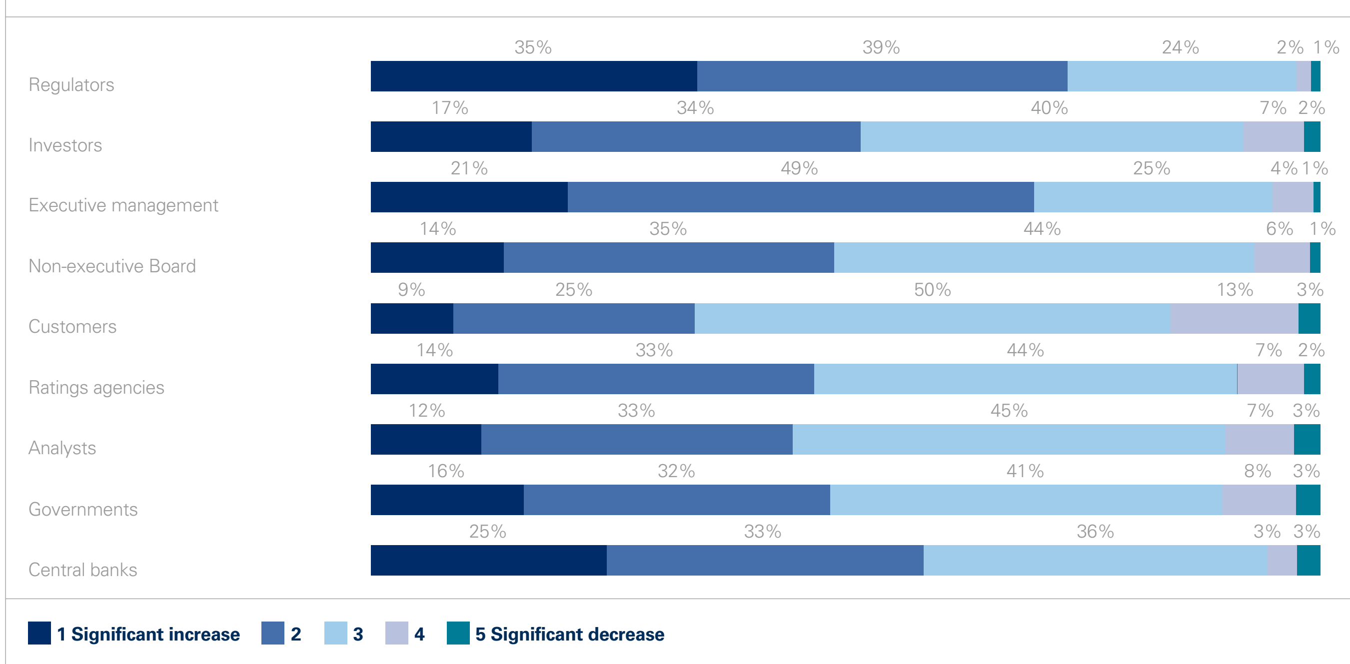
Source: 2009, KPMG International

The emerging influence of the risk function, continued

Where is pressure to change coming from?

The biggest pressure on risk professionals appears to be coming from regulators and executive management, but not – as might be expected – from non-executive Board members. This may be at least partly down to the shortage of risk expertise of Board members and reinforces the suspicion that risk is viewed as a regulatory rather than a business issue, hence the lack of authority of the risk function. If banks are to avoid the problems that have plagued them in the past two years, non-executives will have a key role in providing an independent challenge to risk management.

Chart 9 Change in pressure exerted by stakeholders to improve risk management (over past year)



Source: 2009, KPMG International

"Every employee should understand the organization's appetite for risk."

KPMG comment
Developing a robust risk culture

Banks should set realistic limits on risks that fit the culture and risk appetite of both the individual business lines and the overall institution. Senior managers have to strike a very delicate balance in matching the acceptable level of risk exposure to the culture in which that risk is being managed.

In simple terms, they should have confidence in their own risk culture and the courage to be able to say: "Although we are making a lot of money here, additional risk will not result in additional value being added to the business in the long term."

The job then is to create a system of governance where risk can be managed and where every individual in the organization understands the appetite for risk and their part in mitigating it. This should help prevent those in the lines of business delegating responsibility for risk management. This appetite should be agreed upon at Board level and be the foundation for both the culture and the system of controls within the organization. Once this appetite is clear, potential decisions – such as taking on loan portfolios – can be assessed in the context of what risk is acceptable.

The Risk Committee also has a vital role to play; yet a quarter of respondents in the survey have no plans to even form such a forum. Writing in the *Financial Times* in October 2008[3], Emilio Botín, Chairman, Banco Santander, noted that: "Many are surprised to learn that the Banco Santander Board's Risk Committee meets for half a day twice a week and that the Board's 10-person executive committee meets every Monday for at least four hours, devoting a large portion of that time to reviewing risks and approving transactions. Not many banks do this. It consumes a lot of our directors' time. But we find it essential and it is never too much."

The emerging influence of the risk function, continued

Botín also feels that: “Risk is part of the daily conversation and viewed from an enterprise-wide perspective…risk management not only has a seat at the table, but is also an active participant in all key business decisions.”

Kevin Blakely, President and CEO, The Risk Management Association, also emphasizes the importance of the risk committee, which he believes “should oversee the active acceptance of risk within the organization and make sure it’s mitigated, managed and priced for.”

He adds: “The CRO should be a central part of the strategic planning process and be involved in any major decisions involving initiatives from the lines of business. I don’t think this is happening sufficiently and is a major flaw in enterprise risk management in banks large and small.” He goes on to say that: “With such a weak information circulatory system, in many banks the right hand side didn’t know what the left hand was doing and senior management did not know its overall exposure.”

Will risk be regulatory or internally driven?

In the absence of a globally coordinated response from the banking industry, central banks and their regulators – as lenders of last resort – have taken the lead in rescuing and to some extent remolding the sector. Emerging regulatory changes will demand greater transparency, better risk management and stricter risk governance, with banks possibly having to augment their Boards with a relevant risk specialist.

> "...risk management not only has a seat at the table, but is also an active participant in all key business decisions."
>
> Emilio Botín, Chairman, Banco Santander

Exactly how regulators will be involved in the management of risks in banks is unclear but they are likely to be more hands on.

Governments in many countries have had to step into the breach to restore confidence and calm to their financial services markets. Such help comes at a price however, with numerous conditions that directly impact banks and have wider implications for the global economy.

Since the recapitalization of many banks, the concept of the regulator as a key driver of change has become a reality – with many institutions genuinely shocked at the capital levels they have been obliged to hold. Banks may not be able to resist calls of this sort unless they prove to regulators, policy makers and the public that they have taken the appropriate action to strengthen their own risk management procedures.

Some risk management agendas and budgets in recent years appear to have been driven by the need to meet regulatory expectations set by such initiatives as Basel II, CSE, and Sarbanes-Oxley. Such a compliance focus may possibly have distracted risk management resources from addressing wider organizational risks.

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3. "Banking's mission must be to serve its customers" Emilio Botín, Chairman of Banco Santander, Financial Times, October 16, 2008

Risk expertise across the organization

> "A significant minority of banks has no plans to appoint individuals with deep practical risk experience to senior positions."

Chart 10 Our organization does not have sufficient risk expertise at Board level

Strongly agree	16%
Slightly agree	29%
Neither agree nor disagree	21%
Slightly disagree	20%
Strongly disagree	14%
Total	**100%**

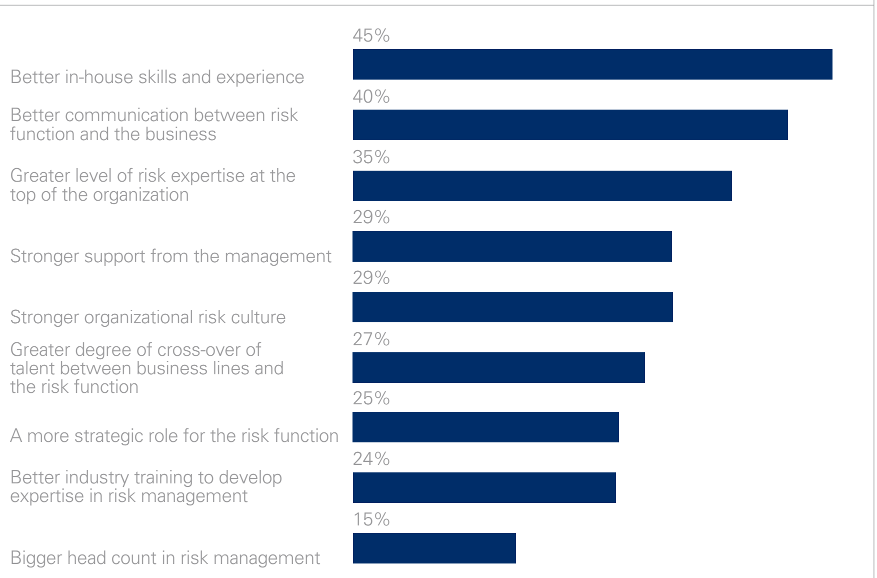
Source: 2009, KPMG International

While acknowledging the lack of risk experience and skills amongst senior executive and non-executive management, the banks taking part in the survey appear to have been slow to address this shortage.

Only four out of ten respondents admit that insufficient risk expertise at Board level was a contributory factor in the credit crisis, and under half (45 percent) believe that their own organization lacks such know-how at the very top. Both these figures are considerably lower than may have been expected, given the risks that some banks may have taken in the lead up to the current troubles.

When asked what would most improve risk management, the number one response (45 percent) was: "Better in-house skills and experience," with over a third admitting that they need greater risk expertise at the very top. Interestingly, respondents from North America and Europe are considerably more confident in their in-house knowledge than their counterparts in other regions.

Chart 11 Which of the following would most improve risk management in your organization?



Respondents were allowed multiple responses. Source: 2009, KPMG International

45%

of respondents believe that their own organization lacks risk expertise at the very top

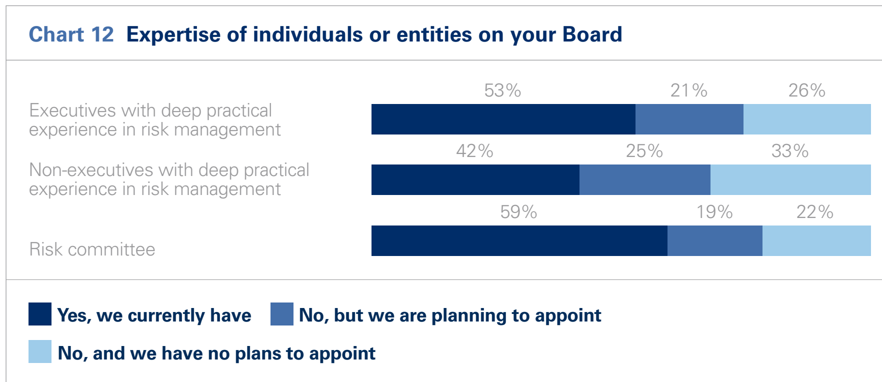
Risk expertise across the organization, continued

Are banks filling the skills gap?

Despite this apparent awareness of their shortcomings, a significant minority of banks has no plans to appoint individuals with deep practical risk experience to senior positions. Over a third (36 percent) are not actively seeking such skills for the non-executive Board, which puts a question mark over the extent of their commitment to truly independent risk assessment of strategic and commercial decisions.

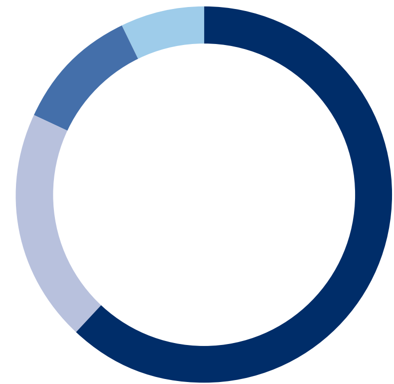
Surprisingly, less than three in ten (28 percent) of respondents feel that lack of skills and experience was a causative factor leading up to the current crisis. Regardless of this, across the organization as a whole, people, skills and training are considered to be by far the single biggest investment priority for banks.

Chart 12 Expertise of individuals or entities on your Board



Source: 2009, KPMG International

Chart 13 Priority areas for investment in risk management (over the next year)



People (skills and training)	62%
Technology	20%
Data	11%
People (head count)	7%

Source: 2009, KPMG International

KPMG comment

A need for greater knowledge and experience

The industry as a whole is probably aware of the shortage of individuals with risk management skills and practical experience, particularly at a senior level. Much of this expertise appears to be concentrated in certain banks, yet even in these institutions, those with risk experience may not be fully involved in major strategic decisions.

Those working in the risk function may also need to improve their skills and indeed raise the profile of the function by investing in people and training. With risk management clearly under the spotlight, it is no real surprise that people are to be the number one investment area.

The Senior Supervisors Group (SSG) (comprising senior supervisors of major financial services firms from France, Germany, Switzerland, the United Kingdom, and the United States) report from March 2008[4] concludes that "…some of the executive leaders at firms that recorded larger losses did not have the same degree of experience in capital markets and did not advocate quick, strong, and disciplined responses."

The report goes on to argue for the selection of executive leaders with expertise in a range of risks, given that it is very difficult to predict the source of the next disruption to the market. Senior management teams as a whole should try to maintain a risk profile "…consistent with the Board and senior management's tolerance for risk."

Emilio Botín, Chairman, Banco Santander[5] believes that: "…the Board must know and understand banking…This is a complex industry, subject to constant change and innovation. What is needed are directors who know the business well."

There is also a strong argument for more expertise across the organization. The "three lines of defense" model places the prime responsibility for risk management with the client facing areas of the business. Yet in a number of cases those working in the lines of business have not had sufficient accountability for their actions and have lacked awareness of the organization's overall risk appetite. This is probably down to the underlying organizational culture and something that can be addressed through training and improved communication.

4. *"Observations on Risk Management Practices during the Recent Market Turbulence" Senior Supervisors Group report, March 6, 2008*
5. *"Banking's mission must be to serve its customers" Emilio Botín, Chairman of Banco Santander, Financial Times, October 16, 2008*

Tools for measuring and managing risk

61%

of respondents will be placing more emphasis on stress testing and scenario analysis

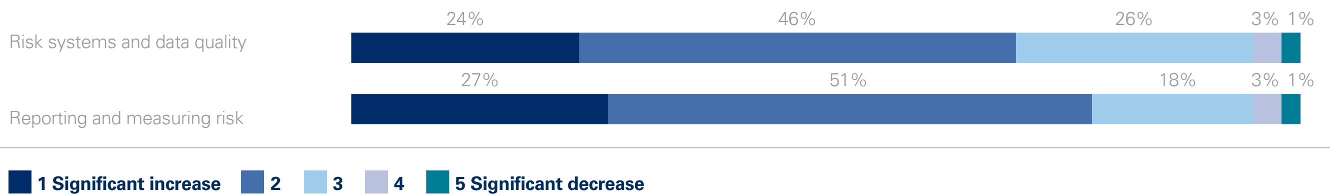
Many banks in the survey recognize the limitations in the way they manage and report data and plan to focus more on stress testing and scenario analysis. However, there is a question mark over whether any new approaches are flexible enough to make accurate predictions.

The way that risk is reported and measured played a significant part in the credit crisis, according to those involved in the survey. Almost eight out of ten respondents (78 percent) are planning to pay more attention to this issue, with a similar proportion looking to improve risk systems and data quality.

What is driving the change in approach to risk measurement?

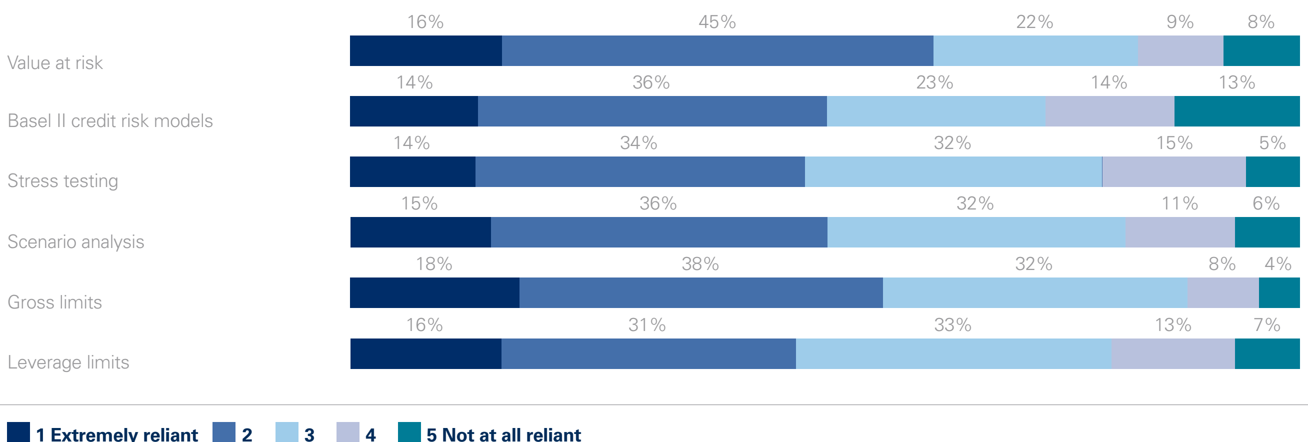
The survey shows that banks have been employing a wide variety of approaches to manage risk, although the use of Basel II credit risk models has been surprisingly low, given the regulatory pressure to take up such a tool.

Chart 14 Expected change in attention to the following over the next year



Source: 2009, KPMG International

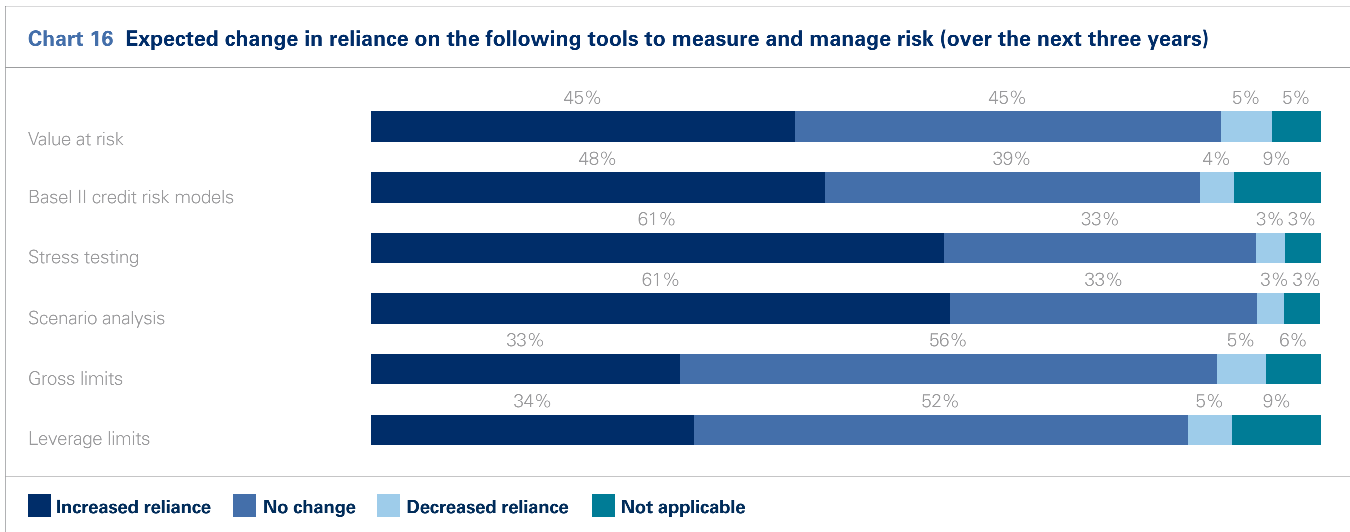
Chart 15 Reliance on the following approaches to measure and manage risk (up to now)



Source: 2009, KPMG International

Tools for measuring and managing risk, continued

Chart 16 **Expected change in reliance on the following tools to measure and manage risk (over the next three years)**



Source: 2009, KPMG International

In the future, respondents will be placing a stronger emphasis upon stress testing and scenario analysis to help measure and manage risk. This is an acknowledgement that recent analysis was not sufficiently robust to deal with the systemic risks in the market at the time. Arguably this increased focus on measurement may also be a precautionary move, given that some regulators are starting to insist on certain levels of stress testing as a minimum requirement in order to maintain capitalization and capital allocation levels.

Will the use of economic capital reduce risk?

The vast majority of survey participants uses or plans to use economic capital to estimate capital requirements, although in only a quarter of cases (23 percent) is this currently fully embedded. This trend, along with the substantial increase in reliance on Basel II models, creates a dilemma for banks: with a potential backlash against quantitative approaches that are based on static, historical data; can risk professionals develop more sophisticated, flexible models?

Chart 17 Current approach to economic capital

We do not use economic capital and have no plans to introduce it	16%
We do not use economic capital but plan to introduce it	22%
We use economic capital but it is not fully embedded in our organization	37%
We use economic capital and it is fully embedded in our organization	21%
We are reducing our use of economic capital	4%

Source: 2009, KPMG International

Tools for measuring and managing risk, continued

KPMG comment : providing a true picture of changing levels of risk

The credit crisis has highlighted some specific challenges in how banks manage risk, with perhaps the biggest concern being the apparent over reliance on quantitative models in decision-making. Even those that used more sophisticated models and testing were not always able to predict what was effectively a once in a lifetime set of circumstances.

There appears to have been a lack of qualitative assessment of the risks and exposures being taken on. While quantitative techniques are likely to have an important role to play, these should be augmented by the judgment of those with extensive risk management and wider business experience.

Measuring risk is clearly an integral part of effective risk management and the use of adaptive rather than static tools (such as Value at Risk) should provide more reliable indicators of future performance. In the lead up to the current crisis, many banks' scenario planning was not sufficiently robust, leaving senior management unable to accurately stress test different options. Future scenarios should incorporate the views of experienced business and risk professionals, as well as those of regulators and other peers.

The mandatory "survival tests" for capital levels – set by the Federal Reserve, FSA and other authorities – are likely to impact profitability and de-leverage the balance sheet.

Such tests will almost certainly require greater use of stress and scenario analysis and consequently we are likely to see a new generation of models and a new alignment of risk management techniques.

However, a model is only as good as its built-in assumptions and its input, which in many banks arrives in varying forms at different times from disparate sources around the organization. This was highlighted in the aftermath of the Lehman Brothers collapse, where some industry participants struggled to identify all their relevant exposures to Lehman across their group structures. In the future, banks should be aiming to consolidate their exposures into a single, consistent source of analysis of their potential risks.

"Banks must get data from enough sources to provide a true picture of changing levels of risks."

The Basel II capital framework – currently used by the majority of banks – can be strengthened, encouraging management to develop more forward-looking approaches to measuring risk. These would go beyond simply measuring capital and incorporate expert judgment on exposures, limits, reserves, liquidity and capital. To give it real teeth, economic capital should be tied into executive compensation so that rewards are based upon the economic value brought to the organization.

According to the Senior Supervisors Group report[6], those organizations that performed well through the crisis were distinguished by the orderly and timely flow of information. Many banks should consider reviewing their 'information circulatory system' to overcome weaknesses such as: varying volumes and quality of information from different parts of the organization; timeliness of data; duplication of information as a consequence of having too many different sources; lack of understanding as to what information is needed, who should supply it and where it should be sent.

6. *"Observations on Risk Management Practices during the Recent Market Turbulence" Senior Supervisors Group report, March 6, 2008*

"Quantitative analysis should be augmented by the judgment of those with extensive risk and business experience."

Conclusions: moving forward

Since the very first credit was extended, banks have amassed vast experience in managing risk, which makes the risk management weaknesses exposed by this crisis all the more surprising. These weaknesses have been compounded by the global nature of the banking system, with few parts of the world economy immune to the impact of the crisis. Moving forward, financial institutions should get back to basics through a renewed focus on understanding the risks that they take. By strengthening their risk governance regimes, they should help to make them more flexible to meet changing conditions.

The findings from this survey point to a number of key improvements that banks should consider:

- **Improving governance and creating a risk culture**
  By establishing an appropriate, enterprise-wide framework within which risk can be measured, reported and managed, banks can create a simpler system incorporating the three essential elements of an effective risk regime: governance, reporting and data, and processes and systems. Firm, visible leadership from the very top can help embed a risk philosophy and culture across the organization, with every employee fully aware of the organization's clearly articulated risk appetite and its impact on decision making.

- Raising the profile of risk
  Those working in risk should seek to build stronger relationships with all levels of the organization, in particular the lines of business, Board, audit committee and internal audit.

- Improving risk expertise at senior levels
  As a matter of urgency, banks should be looking to acquire greater risk know-how within their senior executive and non-executive Boards, helping to provide a more robust and informed challenge to business decisions.

- Risk models should support but not drive decision making
  Effective risk management is essentially about good judgment – supported by appropriate quantitative data presented in a clear, simple format that the Board and other stakeholders can understand. Risk models should be less rooted in historic data and flexible enough to adapt to changing market conditions.

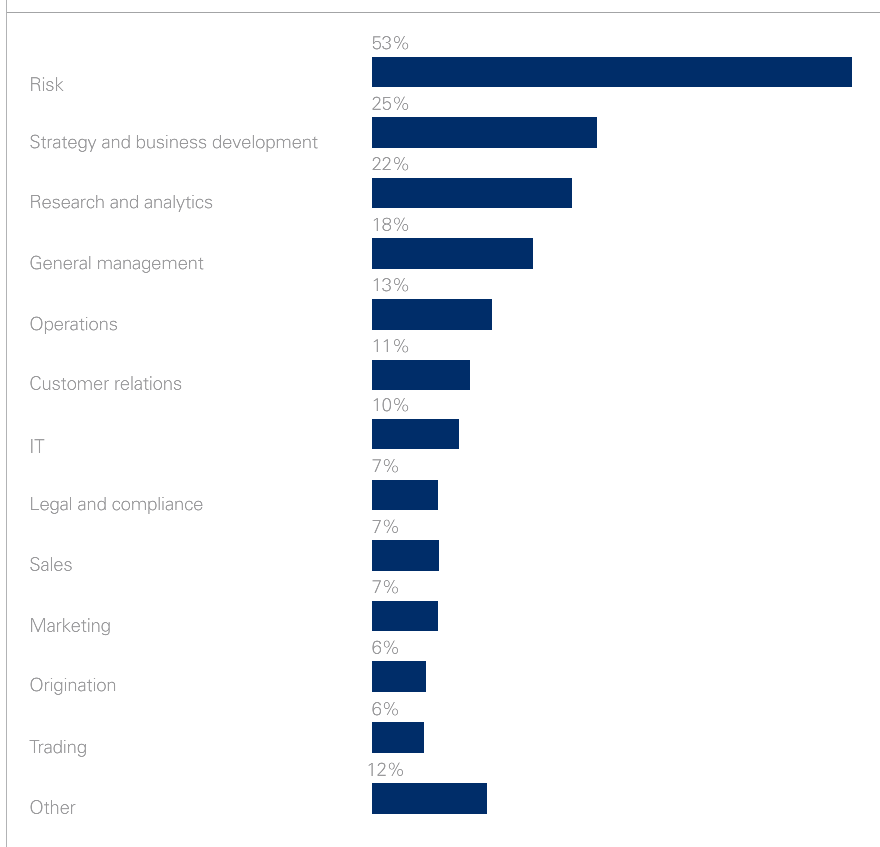
- Addressing incentives head on
  Risk managers should play a role in promoting the principles of compensation policy (which would be developed by the compensation committee), with incentives based on performance and aligned with shareholder interest and long-term, organization-wide profitability. Such an approach should also help to reduce the intervention of the regulators.

Participants and methodology

All the responses were gathered through online interviews in October 2008 with over 500 senior managers involved in risk management from leading banks around the world. The interviews, carried out by the Economist Intelligence Unit, covered a range of questions relating to risk management, with particular reference to the global credit crisis.

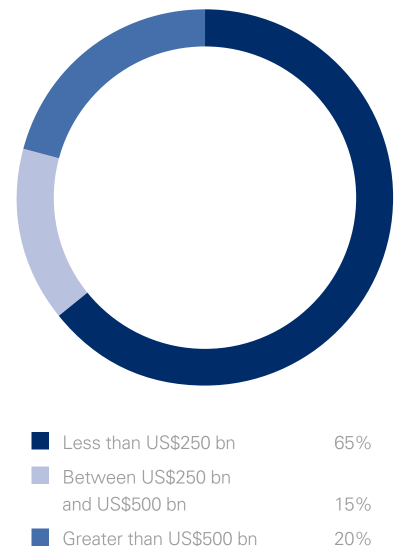
Around six out of ten of the respondents work directly in the risk function for organizations involved in corporate, retail, investment and private banking, as well as asset management. Three quarters (76 percent) of those banks taking part have a CRO or equivalent. Twenty-three percent of the respondents had assets over US $1billion and two fifths over US $250billion.

Chart 18 Participants' main functional roles (up to three)



Source: 2009, KPMG International

Chart 19 Global assets of participants in US$



Less than US$250 bn	65%
Between US$250 bn and US$500 bn	15%
Greater than US$500 bn	20%

Source: 2009, KPMG International

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