

Risk Management at Crunch Time: Are Chief Risk Officers Compliance Champions or Business Partners?

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Abstract

Risk management departments in financial institutions have been undergoing major transformations. New regulatory requirements have raised the bar on compliance and expanded the remit of risk management significantly. The compliance imperative requires banks to implement a firm-wide risk management framework complete with analytical models for the measurement and control of quantifiable risks. In addition, recent corporate governance guidelines advocate the ‘business partner’ role of risk management. The COSO Enterprise Risk Management framework (2003) explicitly defines risk management as a high-level strategic activity, contributing to board-level decision making, planning, and performance management. This role requires that senior risk officers possess an understanding of key strategic uncertainties and that they communicate these to senior management and the business lines.

But how do senior risk officers strike a balance between the twin roles of compliance champion and business partner? Too much reliance on the regulatory crutch may erode the credibility of the risk function as a business partner, while too much emphasis on the business-advisory function might weaken its policing capability.

In this paper, I assess the roles that risk functions and, in particular, senior risk officers play in fifteen large international banks. Because the research was carried out between June 2006 and June 2007, it offers a rare snapshot of the ‘calm before the storm’—the state of risk management at fifteen large players before the liquidity and credit crunch became apparent in the second half of 2007.

The findings suggest that the role of chief risk officers (CROs) had expanded dramatically, with more than half of them frequently involved in firm-level strategic decisions. However, various compliance and risk-modeling initiatives were still works-in-progress in the majority of these banks at the onset of the market turmoil. CROs voiced divergent views on the uses, benefits and limitations of risk models, suggesting that they promoted different *calculative cultures* (*quantitative enthusiasm* versus *quantitative skepticism*). Strategically involved CROs therefore interpreted the business-partner role of their function in different ways. Some risk functions aspired for an influential expert voice in key business decisions (the risk function as *strategic advisor*), while others strove for the formal integration of risk management with performance management (the risk function as *strategic controller*).

The achievement of the strategic-advisor role in some banks and the strategic-controller role in others calls for a clarification of stakeholder expectations on risk management. This would reduce the danger of an expectations gap opening around particular risk management approaches that are adequate for certain banks but ill-suited for others.

Key words: Risk management; enterprise risk management; risk-modelling; calculative cultures; quantitative enthusiasts; quantitative skeptics; chief risk officers; banking industry; regulation

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Introduction

The strategic aspirations of risk managers are widely discussed in the industry literature. Studies suggest that risk management departments in financial institutions have been undergoing major transformations (PWC, 2007; Deloitte, 2007; IBM, 2006). The Basel II requirements have raised the bar on regulatory compliance and expanded the mandate of risk management significantly. It now includes risk assessment, capital needs planning, enhanced risk disclosure and increased governance responsibilities. The compliance imperative requires banks to implement a firm-wide risk management framework complete with analytical models for the measurement and control of quantifiable risks.

In addition, recent corporate governance developments advocate the ‘business partner’ role of risk management. The COSO Enterprise Risk Management framework (2004) explicitly defines risk management as a high-level strategic activity, contributing to board-level decision making, planning and performance management. This role requires that senior risk officers understand key strategic uncertainties and communicate them to senior management and the business lines.

But how do senior risk officers strike a balance between the twin roles of ‘compliance champion’ and ‘business partner’? Too much reliance on the regulatory crutch may erode the credibility of the risk function as a business partner, while too much emphasis on the business advisory function might weaken its policing capability.

In this paper, I assess the roles that risk functions and, in particular, senior risk officers play in fifteen large international banks. Because the research was carried out between June 2006 and June 2007, it offers a rare snapshot of the ‘calm before the storm’ – the state of risk management at fifteen large players before the liquidity and credit crunch became apparent in the second half of 2007.

The findings suggest that the role of chief risk officers (CROs) had expanded dramatically. However, various compliance and risk-modeling initiatives were still works-in-progress (or under overhaul) at the onset of the market turmoil. CROs selected which modeling challenges they took on and voiced divergent opinions on the benefits and limitations of the available menu of risk-modelling initiatives. One group of CROs were committed to extensive risk-modelling and fostered a culture in which risk models were regarded as robust and very relevant tools in decision making (*quantitative enthusiasm*). Another group of CROs took a more cautious view, emphasizing that risk models are useful tools for managing a narrower set of risks, and fostered a culture in which the judgment of veteran experts was called upon in a wide array of risk decisions (*quantitative skepticism*).

These findings support a nascent literature on the likely existence of alternative ‘calculative cultures’ in the risk management community (Power, 2003, 2007; Mikes, 2006, 2007). Based on an in-depth study of two major international banks and interviews with senior risk officers of several others, I have previously argued that chief risk officers foster alternative *calculative cultures* and that they interpret and realize the business partner role of their function differently.

The current study, based on surveys and over fifty interviews conducted at fifteen major banks, provides further evidence that strategically involved CROs interpret the business partner role of their function in different ways, corresponding to the calculative cultures they foster.

Among the eight CROs whom I found to be highly involved in strategic activities, two groups emerged. CROs inclined towards quantitative skepticism achieved an influential expert voice in key business decisions, playing the role of the *strategic advisor*. CROs inclined towards quantitative enthusiasm presided over extensive and sophisticated modeling infrastructures, which provided detailed information on risk-adjusted performance, drilling down to each business and risk exposure and summing up across a variety of positions. Moreover, these CROs acquired the requisite status and skills to make risk-adjusted performance calculations count in key strategic decisions, enacting the role of the *strategic controller*.

The roles of the risk function

Risk managers fulfill diverse roles. The particular amalgam of these roles determines the type of risk management function an organization adopts. I distinguish four types:

- *Compliance champion*. The risk function is focused on complying with pressing stakeholder requirements, keeping up with new regulations, and building and safeguarding the risk management framework, a policy framework that determines what risks must be addressed and by whom. Senior risk officers oversee the development of risk measurement tools for each risk type included in the risk management framework and provide assurance to senior management that adequate controls and processes are in place.
- *Modelling expert*. The risk function is focused on highly sophisticated risk-modelling and on delivering the most advanced measurement and compliance options from the regulatory menu. Senior risk officers spearhead the implementation of firm-wide risk models that are capable of giving an aggregate view of financial risks in the business, focusing on quantifiable market and credit risks.
- *Strategic advisor*. Senior risk officers gain board-level visibility and influence largely due to their command of business knowledge and their experience of what can go wrong. Their role is to bring judgment into high-level risk decisions, challenge the assumptions underlying business plans, and use traditional risk controls and lending constraints to alter the risk profile of particular businesses.
- *Strategic controller*. Having built sophisticated firm-wide risk models, capable of giving an aggregate view of the financial risks, the risk function enables the company to operate a formal risk-adjusted performance management system. Senior risk officers preside over the close integration of risk and performance measurement, and ensure that risk-adjusted metrics are reliable and relied on. They advise top management on the absolute and relative risk-return performance of various businesses, and influence how capital and investments are committed.

The compliance champion role is ingrained in the mandate of all modern-day risk functions. The modelling expert role appears to be optional. Banks with high modelling propensity develop their own internal rating models in the credit risk area and the so-called ‘advanced measurement approach’ to tackle operational risks. Alternatively, banks with lower modelling propensity implement simpler models of risk measurement, choosing between the prescribed ‘basic’ or ‘standardized’ approaches. There are other risk-modelling initiatives that banks may take on by their own initiative, such as active credit-portfolio management, and the implementation of risk-based performance measurement at various levels of the organization.

The taxonomy distinguishes two parallel strategies that may result in high strategic significance for the risk function. Both business partner roles assume a high degree of path-dependency: The requisite resources and capabilities can only be obtained over time. The strategic advisor role requires an intimate knowledge of the business and what can go wrong: experience, which managers earn through long service, having lived through organisational successes, losses and crises. The strategic controller role assumes a sophisticated risk modelling capability, which is foundational to risk-based performance management. However, the project to redefine what ‘good performance’ means in an organization is inherently political. Risk teams with highly advanced models and analytical talent need executive support to succeed in the world of organizational politics. Risk-adjusted performance measures will not work by themselves; they must be *made* to work. Senior risk officers with exceptional political flair and communication skills can make risk numbers count in planning, performance management, and board-level decisions.

Risk initiatives and the roles of the risk function

The senior risk officers I interviewed repeatedly emphasized that the risk function creates strategic value when risk professionals partner with the business lines and help them understand the cost of risk taking and the long-term implications of short-term profit-seeking. Industry studies suggest that a growing number of risk-modelling techniques can make up a risk management infrastructure capable of producing such insights. But do all CROs agree that they need to develop the full technical arsenal of risk management in order to understand the relevant risks that threaten the achievement of their banks’ strategic objectives? And have they successfully implemented their chosen risk management techniques? In 2005, the Economist Intelligence Unit identified twelve risk-quantification projects that risk functions claimed to run (see Appendix A). I asked CROs to identify which of these risk initiatives they have started and why, and to assess the state of their completion. They considered the status of the initiatives according to the following qualifiers:

- Completed and running smoothly
- Partially completed
- Overhauling or replacing a previous methodology
- Not applicable (N/A).

With the exception of market risk modelling, -assessed by all as a mature, business-as-usual affair- most risk management projects were works-in-progress in the first half of 2007. In other words, more than half of the surveyed risk functions were still engaged in finalizing various modelling initiatives at the onset of the credit crisis. Figure 1 shows the *status quo* in the credit risk area.

-----INSERT FIGURE 1 ABOUT HERE-----

Figure 1: Modelling credit risk exposures

In general, fewer than half of the respondents had completed the credit risk initiatives they had embarked on: portfolio-level credit measures (40 per cent), active credit-portfolio management (40 per cent), risk-based performance measurement at the transaction-level (27 per cent) and risk adjusted pricing (25 per cent). The implementation of credit risk assessment methodologies, however, stood out: 60 per cent of the respondents had declared a victory there.

Figure 2 shows the state of the play in risk modelling outside the realm of credit risk management.

-----INSERT Figure 2 ABOUT HERE-----

Figure 2: Modelling market risk, operational risk and business performance

Market risk was the domain of the completed measurement projects; all respondents agreed that such risks were manageable by analytic models and reported that, where applicable, such models had been completed and were running smoothly. Operational risk measurement proved to be a more difficult area. Interestingly, while half of the respondents agreed that quantitative risk modelling was essential to the control of operational risks, the rest believed that risk quantification was not the answer here. Moreover, a quarter of the responding CROs believed that regulatory compliance was the main reason to perform risk quantification in the operational risk area. Unsurprisingly, less than one-third of the surveyed banks said they had completed their operational risk measurement initiatives. However, in line with the Basel II regulatory requirements, most respondents had successfully set up their loss-event data-collection systems and processes (over 70 per cent).

Finally, most banks launched a series of risk-modelling projects to gauge the aggregate risk content and the risk-adjusted performance of their business units and the entire organisation. However, only a third of the respondents had completed a formal measurement infrastructure (30 per cent had completed economic capital models for the assessment of risk profiles and 40 per cent ran risk-based performance measures as part of their regular business appraisals).

Many respondents felt there was a tension between their regulatory-compliance projects and their ultimate aim to provide enhanced risk oversight. Several of the modelling initiatives they discussed were deemed necessary for compliance but not sufficient to enable the risk function (or the business lines) to understand the true risk implications of their decisions. Some senior risk officers had found that large compliance initiatives can backfire; they tend to produce a 'big bureaucracy that can get in the way of getting the risk job done.' Recognizing that most risk initiatives were works-in-progress and heavily 'reliant on the regulatory crutch', several CROs expressed their concern about the 'cultural position' of the risk function.

Notwithstanding the authority conferred on CROs by regulators, their influence on the business lines depends on another kind of authority- the quality and credibility of their insights in strategic discussions.

I assessed the strategic involvement of CROs by noting if they were actively engaged in risk anticipation, had a formal process in place for due diligence during mergers and acquisitions, and were frequently involved in internal consulting and board-level strategic decision making (Appendix B). Having ranked the CROs by the degree of their reported strategic involvement, from high to low, and taking into account the interview evidence as well, the first eight indeed stood out. Compared to the rest of the sample, these eight CROs had relatively higher business profiles. They reported directly to the CEO and/or had access to the ears of the board and the chairman. They were actively involved in planning and executing important strategic moves. One of them, for example, played a pivotal role in a decision to enter the Chinese market and was actively involved in carrying out the bank's strategy of acquiring a stake in a major Chinese bank.

But is the CRO's strategic involvement conditional on the high modelling propensity and analytical capabilities of the risk function?

Figure 3 suggests that the necessity of this condition is not clear. To gauge the modelling propensity of the risk function, I assessed the number of measurement victories each

respondent declared in relation to the twelve risk management modelling initiatives discussed previously (see Appendix B). Modelling propensity was assessed as the weighted number of completed projects (each ‘completed’ project was weighed by 1) and project overhauls. The latter means the substitution of a previously existing modelling initiative by a new one (each model overhaul was weighed by 0.5).

-----INSERT FIGURE 3 ABOUT HERE-----

Among the eight CROs reporting the highest strategic involvement, four presided over risk functions with high modelling propensity. These banks stood out as the ones closest to finalizing the complete infrastructure of risk-based performance measurement. The other four CROs reporting high strategic involvement did not depend on the completeness of the surveyed risk models; neither did they rely on the integration of risk-based performance measures into the performance management infrastructure.

The quadrants in Figure 3 correspond to the four types of risk management functions discussed previously.

The CROs in Quadrant I (banks 8-11) had been particularly successful in making risk-based performance measurement count; they presided over risk management infrastructures that were well integrated with planning and control. These risk functions had realised the strategic controller role.

The risk function appearing in Quadrant II is an example of the modelling expert. Although its overall modelling propensity was lower than that of the strategic controllers’, this bank shared a feature with Quadrant I banks: It had completed the methodology required for risk-adjusted performance measurement. However, the CRO’s strategic involvement was comparatively low, suggesting that the capabilities of the modelling-expert role may be necessary but not sufficient to elicit the strategic-controller function.

Quadrant III contains an eclectic set of banks. They appeared lower in both dimensions as the main focus of their risk function was to put in place an adequate compliance infrastructure. These banks illustrate how salient the compliance champion role was in 2007, with important regulatory deadlines on the horizon. Although the compliance task absorbed much of the CROs’ attention in these banks, the senior risk officers were aware of the next developmental challenge and were pondering a move to the business-partner role. For example, one of the banks launched an explicit project to redefine the role of the risk function ‘Beyond Basel II’.

The CROs in Quadrant IV CROs (banks 2-5) enjoyed a high profile similar to that of their strategic controller peers in Quadrant I; they all felt part of the ‘top team’ and were influential in all major board-level decisions affecting their banks. Although much of the compliance and modelling infrastructure was a work-in-progress in these banks, the risk models produced sufficient information to enable the CROs to detect underlying risk trends. They were highly sensitive to the existence of ‘non-quantifiable’ risks and gathered information by making frequent trips into the ‘bowels of the organization.’ Their influence was not conditional on (or even related to) the formal integration of risk measurement and performance management. They brought to the top table extensive compliance experience and their long institutional memories- knowledge of issues that can go wrong in the business and in the sphere of compliance. These CROs realised the role of the strategic advisor.

The next section will turn to the beliefs and assumptions that senior risk officers held about the manageability of risks, the use of risk modelling, and the nature of the senior risk officer’s contribution in high-level strategic discussions.

Cultures of calculation

Once senior risk officers in a bank understand whether risk issues are explicable in quantitative terms or whether knowledge about some risks is better thought of as emergent, they will shape the design of the risk management architecture and the activities of their function accordingly. As the physicist and historian of science Gerald Holton observes, such assumptions can lead to contrasting methodological stances between experts in the same field (Holton, 1988; Gardner, 2006). Two types of *calculative cultures* have emerged in the risk management field²:

Quantitative enthusiasm: Adherents believe that the increasing availability of data and the rising sophistication of risk modelling render more and more risk types manageable by numbers. Quantitative enthusiasts aim to replace judgmental risk assessments with risk quantification. They believe that risk measures are capable of reflecting the underlying economic reality reliably enough to induce requisite economic behaviours. Adherents put a high priority on building, maintaining and improving the ‘robustness’ and ‘accuracy’ (i.e. the relevance and reliability) of their analytical models. They also seek to extend risk modelling, albeit complemented with qualitative methods, to strategic and operational risk issues.

Quantitative skepticism: Adherents turn to risk modelling with caution and are wary of managing risks by numbers. Quantitative skeptics regard risk measurements as trend indicators, which they seek to complement and often overwrite by senior managerial discretion, experience and judgment. They see little benefit in applying risk models in the realms of operational and strategic risks, considering issues in these areas to be emergent and to be conditional on external environmental shifts and the cultural attributes of the organisation.

Both calculative cultures in risk management presuppose the existence of risk modelling; indeed, the development of analytical models is at the heart of the risk management industry. The difference lies in the way risk managers *use* risk models and make them count in business decisions.

Quantitative enthusiasts strive to capture the complexity of risk decisions in the model design, including much judgment upfront, so that the output of models can be a close proxy to the underlying risk profile. In this case, risk models reduce decision uncertainty, in the sense that they minimize room for disagreement among decision makers on the validity of the model output. This modelling culture is particularly favourable to risk-adjusted performance measurement and to the inclusion of such metrics into incentive systems. Because many of the judgmental issues are resolved in the modelling design, little or no disagreement surrounds the risk-adjusted performance metrics, enabling decision makers to manage risky ventures *by the numbers* and to determine performance-based bonuses in light of those numbers.

In contrast, quantitative skeptics operate relatively simpler models; relationships not captured in the model design are to be considered *ex-post*. In this case, the risk models may even increase decision uncertainty, challenging decision makers to treat the model output as the starting point for further inquiries and the exercise of judgment. This modelling culture treats the notion of risk-adjusted performance management differently than the culture of quantitative enthusiasm does; important risk considerations take place *after* the initial proxies for risk-adjusted performance metrics are produced. Linking risk management to planning and

² In an earlier field-based study conducted at two large international banks, I found that senior risk officers in one bank thought about the uses, merits and limitations of various risk models remarkably differently from their peers at the other bank (Mikes, 2006). Recognising the possibility of alternative ‘logics of calculation’ at play (Power, 2003, 2007), the study defined and described two different *calculative cultures*.

incentive systems is not straightforward as it was in the culture of quantitative enthusiasm; risk considerations do not feed into decisions as an automatic link, but rather as an *ex-post* adjustment.

The present study allows us to compare the fundamental attitudes, notions and methodological judgments that CROs bring to the management and modelling of risk. The CROs appeared to cluster in two sub-groups: Among the fifteen respondents who undertook the attitude survey and discussions, eight appeared to be proponents of quantitative enthusiasm, and the other seven displayed views more consistent with quantitative skepticism.

I carried out a separate round of interviews with CROs to discuss the underlying beliefs they brought to risk modelling (Appendix C). I measured the responses on a 4-point Likert - scale, giving higher and positive weights to answers that were more in agreement with the concept of quantitative enthusiasm and giving lower and negative weights to responses more in line with the concept of quantitative skepticism. Quantitative enthusiasts scored an aggregate positive attitude score in the survey while quantitative skeptics scored a total of zero or a negative score. One must note that CROs tend to agree on certain issues. In the case of consumer-credit modelling, for example, most risk officers tend towards quantitative enthusiasm. However, there are ‘grey area’ risk decisions and some fundamental convictions about the uses of risk modelling that divided the respondents, so on balance we can label some of them as quantitative enthusiasts, and others as quantitative skeptics.

The respondents considered market risk and credit risk as the ‘traditional’ financial risk categories. For operational risk, they were encouraged to consider the now standard Basel II regulatory definition (‘the risk of loss resulting from inadequate or failed internal processes, people and systems or from external events’). Under strategic risks, we discussed the hard-to-quantify risks that pose threats to the achievement of key strategic and business objectives. In many organizations such risks are called ‘business risks’; for the purpose of the discussions, the two terms were regarded as interchangeable.

CROs held particularly contrasting views on the applicability of models to operational and strategic risks. In line with quantitative enthusiasm, half of them agreed that risk modelling can usefully be extended to strategic and operational risk issues, albeit complemented with qualitative methods. However, the other half of the respondents declared that risk modelling in these areas was simply ‘not helpful’.

But do personal convictions about the manageability of risks in fact relate to the risk modelling propensity of the function? Figure 4 suggests some interesting links.

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Figure 4. Calculative cultures and modelling propensity

While the group of quantitative skeptics indeed displays a lower modelling propensity, the group of quantitative enthusiasts splits further into two sub-groups: those who have gone further down the path of risk quantification with numerous completed analytical initiatives (four banks), and those who have declared fewer measurement victories (four banks). Notice that the banks that are furthest down the road of risk modelling and that display considerable quantitative enthusiasm (banks 8-11) are the very group in which the CROs realized the role of the strategic controller. The group of quantitative skeptics, containing seven respondents, declared decidedly fewer measurement victories; they made it clear in interviews that they did not aspire to conquer all of the measurement challenges that the quantitative enthusiasts set for themselves.

The apparent divergence of CROs' views on risk management approaches shows the risk profession at a crossroads. Although regulatory coercion can drive the eventual convergence of approaches in the risk-modelling domain, one suspects that there are legitimate reasons why some banks might successfully foster quantitative enthusiasm in their efforts to grapple with risk, while others retain quantitative skepticism.

Noticeably, the very nature of a bank's business portfolio guides these approaches. The CROs with the strongest quantitative enthusiasm come from banks with significant investment-banking operations. Investment banks were the first to adopt risk analytics for the treatment of market risk (value-at-risk) and continued to refine and extend the methodology for other risk types throughout the 1990s. Their exposure to quantifiable market risk and the need to gain an aggregate view of their risk portfolios made them particularly receptive to advances in risk measurement and modelling. Thus, in several large banking groups it was the investment-banking operation that took responsibility for the development of the enterprise-wide risk management framework. Heralded by CROs and senior risk officers coming from an investment-banking background, these group risk functions became champions of "quantitative enthusiasm" and spread advanced modelling methodologies to other areas of risk control.

Risk management is becoming increasingly model-driven in retail banking as well. Banks are implementing modelling tools to automate such lending decisions, particularly in largely homogeneous retail portfolios (e.g., credit cards), where a long history of data is available. However, unlike the value-at-risk methodology used in investment banks, retail-credit-risk methodologies may not be applicable to the other risk areas. In particular, while some quantitative enthusiasts maintained that sophisticated credit-risk models are capable of adequately pricing the risk of commercial loans to corporations, others fervently disagreed. It appears that, in a diverse banking group, there are several hindrances -both technical and cultural- to an overall 'modelling turn' in risk management across the entire lending portfolio. In particular, large lending requests in corporate banking remain associated with case-by-case, judgmental decisions about the risk and return characteristics of the deals. The chief credit officer of a universal lending bank warned: 'The real danger of using models is that, in certain circumstances, it actually encourages people not to look at the case financials closely.' Thus, there is a rather strong case for a certain group of banks to maintain their skepticism toward risk modelling. These banks tend to manage more traditional banking lines (where investment banking is not a strong element in the mix) and rely less on risk modelling, drawing more on case-by-case judgments and the guidance of experienced senior decision-makers.

In investment banks and large retail-focussed banks, quantitative enthusiasm tends to have a strong following. Many of these banks had started to change authority structures in the lending process, allowing an increasing number of decisions to take place based on model responses, with little oversight from humans. Overall, different calculative cultures foster different degree of reliance on risk models, varying the application of these across institutions, business lines and decision situations.

Given the different CRO attitudes to risk modelling, one expects variations in the degree of strategic-level involvement of CROs. As before, the degree of strategic involvement of CROs was judged as higher if they were formally engaged in risk anticipation, due diligence during mergers and acquisitions, and internal consulting and if they participated in other high-level discretionary strategic decisions (Appendix B).

In particular, quantitative skeptics tend to define their remit widely, including both quantifiable and non-quantifiable risks, and would strive to get the ears of the board on matters of emerging risk trends, making their role akin to that of the strategic advisor. On the other hand, one may expect quantitative enthusiasts to define the mandate of their function in terms

of the quantifiable financial risks and to be less involved in discussions of more strategic issues, such as mergers and acquisitions.

As illustrated by Figure 5, the findings suggest that there are strategically highly involved CROs emerging in both camps.

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Figure 5. Calculative cultures and CRO involvement in strategic activities

The CROs who reported the highest strategic involvement among the quantitative skeptics (in banks 2-5) turned out to be those previously identified as the strategic advisors. It might have been their quantitative scepticism that drove these senior risk officers to seek influence on strategic discussions in more traditional ways; they drew on three decades of business experience and a knowledge of the danger signs emerging risks. Models played a role in their judgment but did not drive it. As one of them remarked:

‘A model is a tool that you should be comparing with what you expect to see, and when you are not seeing what you expect to see, knowing how the model is constructed, you need to go in and look at it before it actually starts to turn wrong. Finding out a model doesn’t work anymore isn’t a good way of finding out there are changes in the background that you should adjust to.’

Among the quantitative enthusiasts, the CROs who reached the strategic echelons of their organization (in banks 8-11) were the same as the previously identified strategic controllers. The quantitative enthusiasm of senior risk officers creates the cultivating ground for the arduous project of integrating risk measurement with planning and performance evaluations. Having resolved the modelling challenges that might otherwise undermine the credibility of risk-adjusted performance indicators, these CROs had secured a seat at the top table and an important say in high-level performance discussions; they thus enacted the role of the strategic controller.

A common structural decision made by strategically highly involved CROs was to delegate the oversight of routine, measurement-and-reporting activities to another high-level risk officer (e.g., the Group Head of Risk-management Architecture). The role-split enabled the CRO to devote more time to board-level strategic discussions and to become more externally oriented, gaining parity with executive-level peers. Two-thirds of these CROs reported directly to the CEO, suggesting that the reporting line, to some degree, reflects the executive support and strategic involvement granted to the CRO.

4. Discussion and the road ahead

The role of chief risk officers had expanded dramatically in the years preceding the current liquidity and credit crunch, with risk functions aspiring to play the double role of the compliance champion and the business partner. This study of fifteen international banks showed that striking the balance between the two roles was a challenge and that CROs had to choose between alternative routes to strategic significance. Some of them aspired to an influential expert voice in key business decisions (the risk function as strategic advisor), while others strove for the formal integration of risk management with performance management (the risk function as strategic Controller).

These roles assume a high degree of path-dependency; the requisite resources and capabilities can only be obtained over time. The components of the two trajectories are summarised in Table 1:

	Strategic controller	Strategic advisor
Modelling capabilities		
<i>Primary objective of risk modelling</i>	Measuring the aggregate risk profile of products and business lines	Anticipating changes in the risk environment
<i>The role of judgment in risk modelling</i>	Model design contains the modeller's judgment of complex relationships between variables	Model design deliberately simple. Managerial judgment is exercised to adjust model implications to reflect additional complexities
Strategic capabilities		
<i>Span of risk control</i>	Quantifiable risks	Quantifiable and non-quantifiable risks
<i>The essence of the business-partner-role</i>	The integration of risk management with planning and performance management The CRO as the advocate of risk-adjusted performance	The risk function's ability to influence discretionary strategic decisions and to articulate to line managers the long-term risk-implications of their decisions The CRO as a seasoned business executive and devil's advocate
Managerial context		
<i>Business type</i>	Investment banks Large retail-focussed banks	Universal banks with large corporate / commercial lending portfolios
<i>Calculative culture</i>	Quantitative enthusiasm : <ul style="list-style-type: none"> • Risk numbers are deemed representative of the underlying economic reality • Emphasis on the 'robust' and 'hard' nature of modelling • Risk-adjusted performance measures are recognized 	Quantitative skepticism : <ul style="list-style-type: none"> • Risk numbers are taken as trend indicators • Emphasis on learning about the underlying risk profile from the trend signals • Risk adjusted performance measures are discussed, but are open to challenge

Table 1. Contrasting the two models of the CRO as business partner

In the wake of the subprime credit debacle, banks have been surprising investors with graver-than-expected losses and write-downs. One cannot help wondering how the banks of this study have weathered the credit-market storm. At the time of writing, the end of the crisis is far from clear and it is too early to declare winners and losers. Attempting to link firm-performance to the evolving roles of the risk functions observed in this cross-case study would be nebulous and inherently judgmental. As each bank continues to develop its risk function while steering through a protracted financial crisis, it needs to judge which combination of risk management roles will give the best fit. Two of the interviewed CROs expressed their plan to combine the strengths of the strategic advisor and the strategic controller roles, in the belief that this could make a potentially very strong risk management function.

It is possible that a risk function can develop both roles successfully, but the path dependencies involved make it difficult. The aspiring function would need to develop, accommodate and take advantage of the components of the other trajectory while reconciling the different calculative cultures that foster various components of the amalgam. The intention to create such a combination raises a number of challenges, particularly in three areas: risk modelling, incentive systems and the risk-governance process (here, I thank Robert Kaplan for directing the present study to the discussion of these issues).

The convergence of modelling capabilities

Quantitative skeptics will have to consider two arguments for increasing the modelling propensity of their risk functions. The first is cost reduction. Particularly in areas where exposures are homogeneous and spread across a large borrower population (e.g., credit-card lending), banks can harness significant cost savings by delegating lending decisions to machines. The second is consistency and the benefits of getting a portfolio view of risks. As one senior risk officer said, ‘getting an aggregate view of any kind of risk is particularly important in big, complex organizations.’ An informative, reliable view of the aggregate risk profile enables risk-adjusted performance measurement. Nevertheless, acquiring it is not only immensely costly, but also and political; it requires the risk function not only to build and maintain the requisite risk-aggregation models across dispersed operations, but also to get the businesses to buy into a fundamentally new picture of performance that may conflict with their self-interests.

Once models are tasked with accounting for risk-adjusted performance in a bank, there is less room for *ex-post* managerial judgment, as it is required upfront in the model design. Quantitative skeptics are presently reluctant to delegate their understanding of risk-adjusted performance to models. However, some of them recognize that, over time much of their judgment may be fed into the model design and that careful organizational positioning and packaging will eventually make risk-adjusted performance metrics acceptable to business people.

Although quantitative enthusiasts maintain that models are capable of accommodating very complex relationships between numerous variables, they also face important judgment calls; they must anticipate when even the most advanced of risk models cease to be accurate as a result of major shifts in the environment. Given that most risk models in use at the time of this survey were developed during a very favourable credit environment (1998-2006), modelling experts whose career trajectory includes several prolonged stress events are hard to come by.

In summary, senior risk officers, no matter what particular calculative culture they foster, are balancing three conflicting objectives in risk modelling: (1) cost reduction by automating decision making; (2) retaining deal and model familiarity to inform expert

judgment; and (3) achieving an aggregate view of risks. Striking the right balances in this ‘trade-off triangle’ (see Figure 6, below) remains a challenge for all CROs, as their choices must be congruent with their organizations’ decision-making, risk-taking and modelling cultures. It also requires a differentiated approach across various business lines and risk areas.

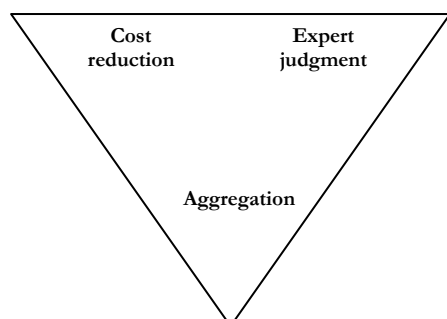


Figure 6: The trade-off triangle of risk modelling

Incentives and reward systems

It is a conundrum of risk management that it has to take place in the face of unfavourable incentive systems. The explicit objective of many senior risk officers is to help business line managers understand the cost of risk taking and the long-term risk-adjusted profit implications of their actions. Unfortunately, current incentive schemes tend to reward bold, short-term risk-taking and do little to discourage ‘betting the enterprise’ with investments that have high probability of superior returns and a low probability of causing financial distress.

Linking the remuneration of risk takers to long-term, risk-adjusted performance is currently not feasible in any single bank because a deferred-bonus scheme has little attraction to those who can choose between cash offers in a competitive market for deal-origination talent. However, increasing regulatory pressure and shareholder activism is likely to bring a systematic change to internal definitions of ‘good performance’, and ultimately, to the way risk-taking behaviour is rewarded. For example, several of our senior risk officer respondents argued that the recognition of revenue for bonus purposes ought to follow accrual accounting and take into account the longevity and risk of the deal, rather than upfront recognition.

The governance process: Risk management and stakeholder expectations

In the wake of a new regulatory era and recent market strains in financial services, senior risk officers are under pressure to demonstrate how they are realizing the risk oversight potential of their function. No professional realm can operate indefinitely if it clashes with the requirements of stakeholders (Gardner et al., 2001). As a professional group, risk managers need to accommodate the demands of various stakeholder groups: regulators, corporate executives, shareholders, debtholders and the general public.

Accountability to such diverse stakeholder groups requires that the risk function have a clear, well-defined position in the organizational governance process. Senior risk officers increasingly consider the CEO and the board to be their primary customers. However, many risk functions have been caught by the credit crisis in a work-in-progress compliance champion mode, while others have been in transition towards their particular understanding of the business partner role. The ideas and practices of risk management, unlike those of long-

established professions, have not yet been codified into a unified domain. As a result, risk practitioners have a fuzzy role in corporate governance.

However, this fuzziness is a historic opportunity for the profession. By defining and amalgamating the strengths of the compliance champion, modelling expert, strategic advisor and the strategic controller roles, risk managers could improve business decision-making and incorporate both good risk analytics and expert judgment. As one of our CRO participants remarked, ‘one of the greatest contributions of risk managers, arguably the single greatest, is just carrying a torch around and providing transparency’. The art of risk management is in making the executive team see the light, and getting recognition for it. Yet the ultimate test remains the ability of risk managers to influence risk-taking behaviour in the business lines.

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BIOGRAPHY

Dr. Anette Mikes is at the Harvard Business School, researching the diverse practices of risk management deployed in various organizations. Having spent eighteen months as an advisor to the group risk function at Standard Chartered Bank, she instigated and directs the Risk Futures research initiative. With the cooperation of a number of senior risk officers from the British Bankers' Association's Risk Advisory Panel, this ongoing research programme investigates evolving directions in risk management and the emerging roles of senior risk officers.

Appendix A. Modelling propensity: Survey questions

Survey Question	Modelling propensity: Major risk management initiatives (EIU, 2005)
(1)	Finalising market risk methodologies
(2)	Finalising credit risk assessment methodologies
(3)	Implementing portfolio-level credit measures
(4)	Implementing active credit portfolio management
(5)	Finalising operational risk measurement
(6)	Economic capital methodology
(7)	Other capital allocation methodology
(8)	Consolidating risk systems and processes from an IT point of view
(9)	Implementing risk-based performance measurement at transaction level
(10)	Implementing risk-based performance measurement at business unit / group level (RAROC, Economic Profit, etc.)
(11)	Implementing risk-adjusted pricing
(12)	Setting up and running loss event databases

Appendix B. The CRO's involvement in strategic activities: Survey questions

Survey Question	Strategic involvement
(13)	Internal consulting, contribution to setting up new ventures, initiating new projects
(14)	Participation in board-level strategic decision making (i.e. M&A, portfolio rebalancing, etc.)
(15)	Implementing tools that allow us to anticipate major changes in the strategic environment
(16)	Creating a risk management due diligence process to complement our acquisition strategy

Appendix C: Attitudes to risk modelling: Survey questions

Survey reference	Attitude questions
(17)	To what extent do you rely on quantitative models in operational risk management?

(18)	To what extent do you rely on quantitative models in strategic (business) risk management?
(19)	To what extent do you agree with the following statements? In general, if you want to manage risk, you have to quantify it
(20)	Where we have quantified risk, we believe our models pretty much reflect the underlying economic reality
(21)	Risk models can at best be directionally right, therefore we mainly rely on them as trend indicators
(22)	The benefits of using qualitative considerations in risk decisions tend to outweigh the problems introduced by their subjectivity
(23)	Generally, the benefits of a more quantified, model-based risk management approach tend to outweigh the loss of individual judgment in risk decisions
(24)	Having leading-edge risk modelling capabilities provides us with reputational benefits in the industry

Figure 1: Modelling credit risk exposures

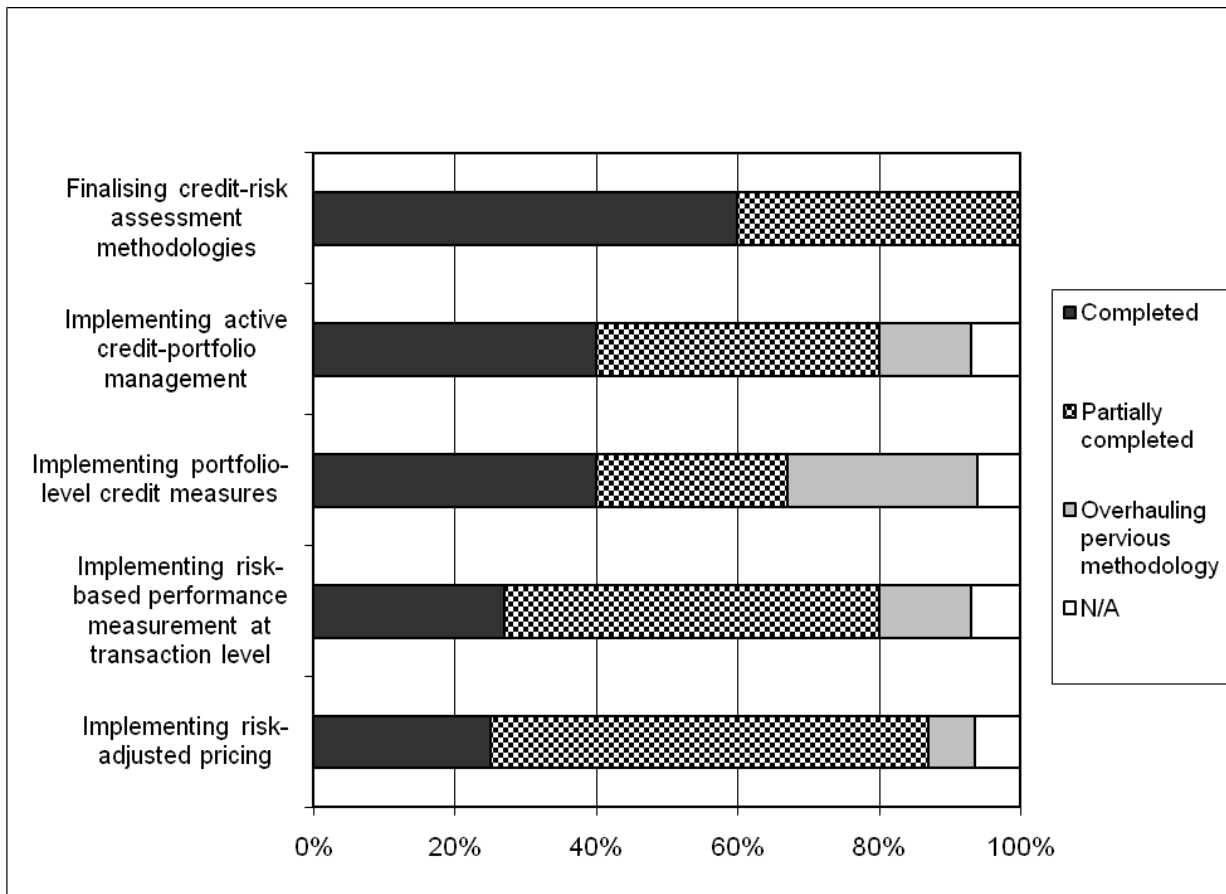


Figure 2: Modelling market risk, operational risk and risk-adjusted business performance

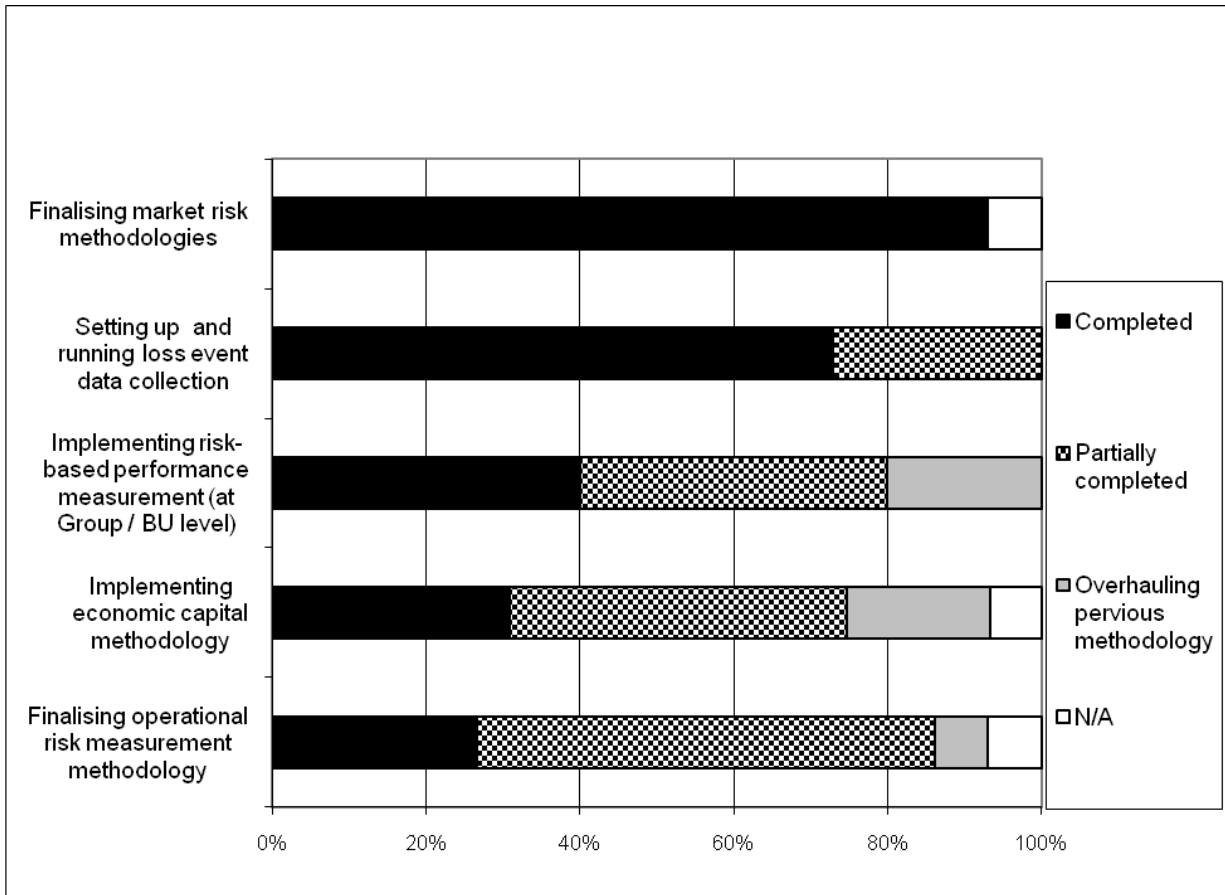


Figure 3: The strategic involvement of the CRO and the modelling propensity of their risk function

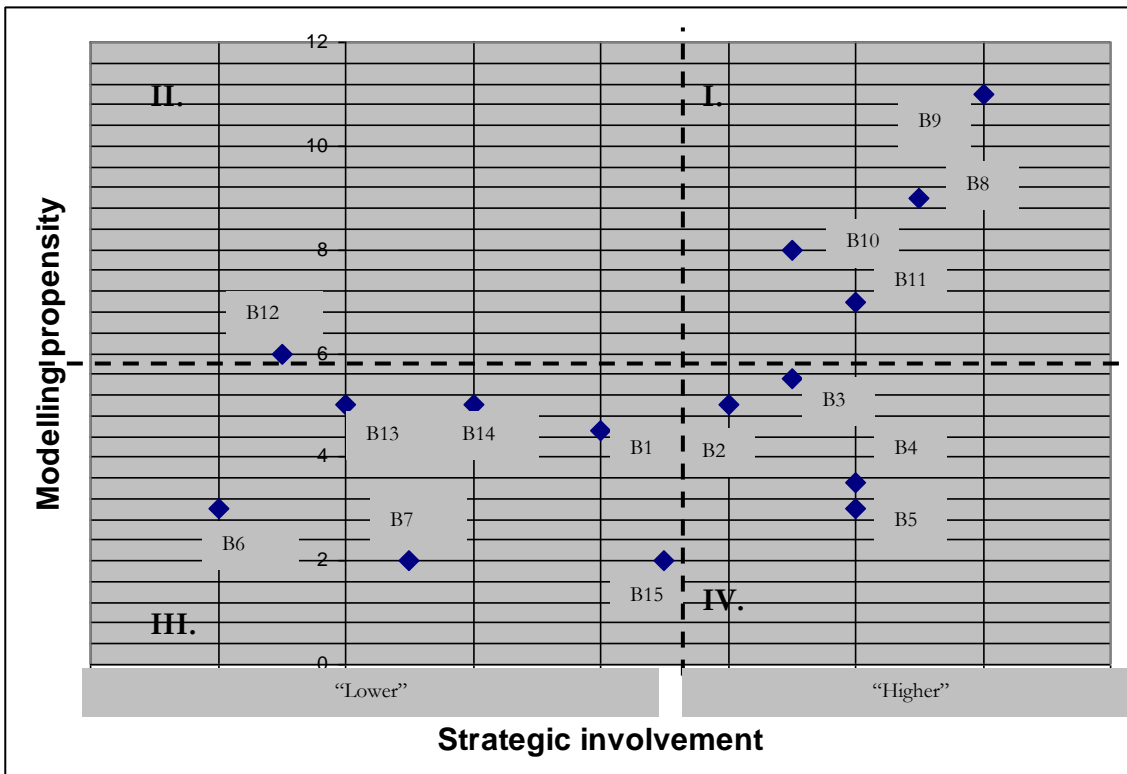


Figure 4: Calculative cultures and modelling propensity

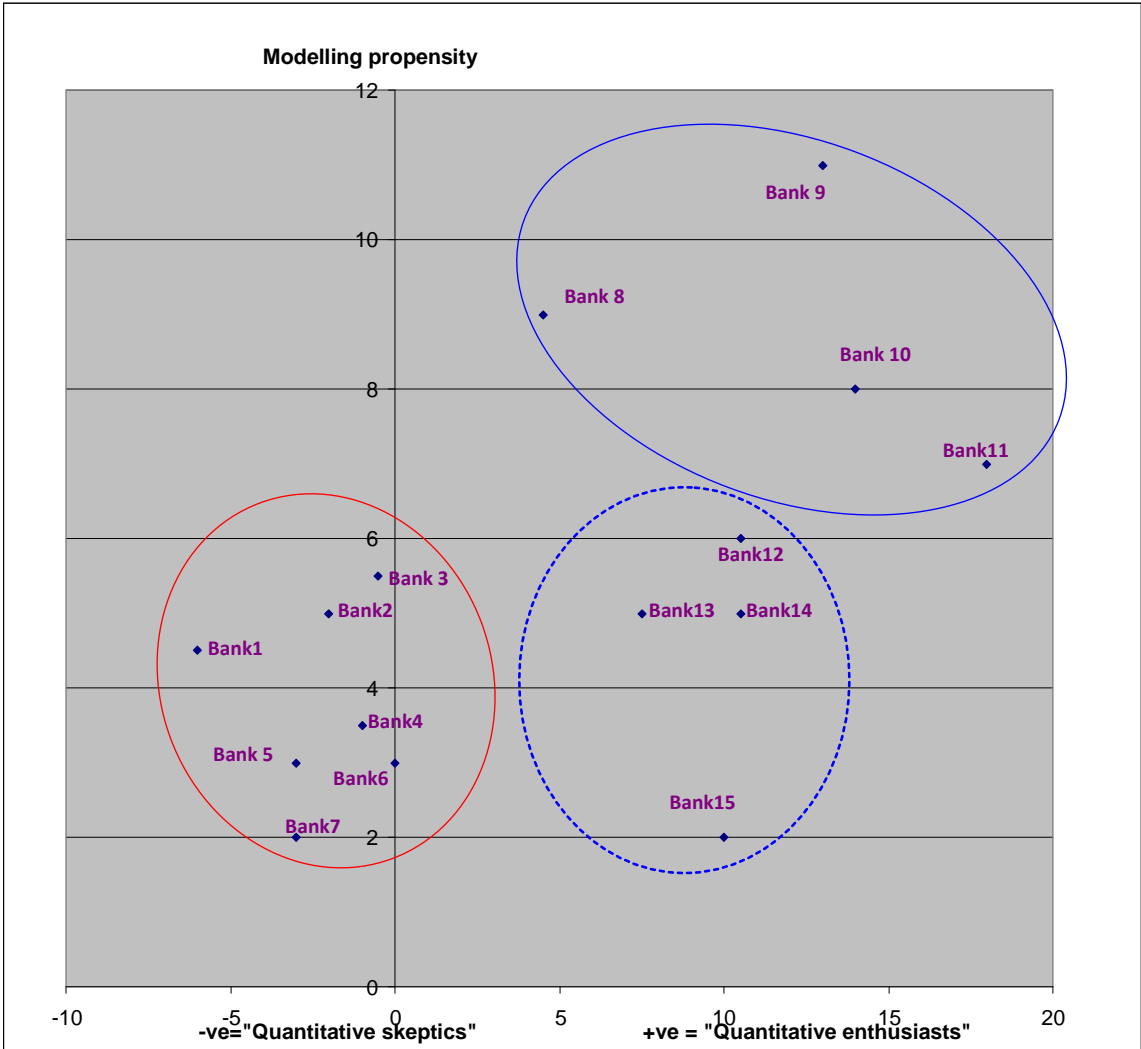


Figure 5: Calculative cultures and CRO involvement in strategic activities

