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Risk management recast

Criticism of the role of inadequate risk management in helping to cause and worsen the financial crisis has tended to focus on technical issues such as the limitations of value-at-risk. Certainly, technical challenges abound. But it seems that the most necessary change envisioned by a panel of risk management professionals assembled for this forum in New York recently is for the risk management function to become truly empowered and viewed as a key part of business decision-making

Risk: **The concept of enterprise-wide risk management (ERM) has been widely discussed for many years, and yet a lack of true ERM has been identified as a major deficiency that has contributed to many institutions' troubles. What should we mean when we talk about ERM?**
Lori Evangel (LE): There are several guiding principles. The most basic of which is to ensure that you are picking up all the risks of the firm and overcoming the silos that naturally occur in any large organisation. Next, the risks must be identified, aggregated, measured, quantified and reported in a genuinely holistic way. Finally, the risk management function must be independent and have a seat at the table; we speak about risk management not as oversight but as a strategic partnership with the businesses. So, we have a seat at the table, are independent and competent, and seek to develop best-in-breed quantitative tools. In this way, we are seeking to add and to maximise the risk-return proposition of the firm.

Anthony Moon (AM): Historically, we have associated ERM with bridging across the risk disciplines: integrating market and credit risk; integrating credit risk and operational risk; and so on. Recently, however, the focus has shifted more towards integrated risk management across entities and geographies. At a micro level, you are faced with developing common scenarios and integrated risk decision-making – taking into account different disciplines, which is quite challenging. However, from a macro perspective, geographical and cross-entity ERM is a much more difficult task in a firm as big as ours, especially when all the data structures are different. We have operated on a decentralised basis for a long time – so, for us, putting more of a global governance structure in place is where we are currently focusing.

Charles Mires (CM): I agree that technology is vitally important and that you must have the data collected across your organisation first. Without this, you cannot get very far beyond having theoretical discussions. When it comes to acting in terms of trading one risk for another, for example, you have to do it with a foundation of very good data.

The Panel

Martha Cummings Chief risk officer, Banco Santander, New York
Peter Davis, Principal, Financial services, Ernst & Young LLP
Yury Dubrovsky Managing director and head of global risk management, Lazard Asset Management
Lori Evangel Senior vice president, MetLife
Charles Mires Senior managing director, AllState Investments
Anthony Moon General manager and chief risk officer, Bank of Tokyo-Mitsubishi UFJ
Hank Prybylski, Partner, Financial services, Ernst & Young LLP
Donald Vangel, Principal, Financial services, Ernst & Young LLP

Risk: **Accepting that it encompasses these different elements, how is the perception of ERM changing industry-wide?**
Hank Prybylski (HP): From our discussions with clients, it is apparent that the ERM structure had been somewhat viewed as aggregation and measurement methodologies confined to just the chief risk officer's (CRO's) realm. But, regulators and others are now thinking about ERM in relation to broader governance activities and in relation to the culture of the firm. After all, you can have the best aggregated risk reporting system, but if you do not have independence, good governance and a seat at the table with good reporting to the board, you may still be vulnerable to exposures. So more of the dialogue is now top-down; let's make sure we have an informed discussion about risk at the board level, and then at the business units and the control group. And let's make sure we have the right incentives – be that in terms of compensation or the tone of what is articulated about risk by senior management. Once this kind of framework is in place, risk managers can become much more empowered.

Martha Cummings (MC): We have had this kind of approach in place for a number of years, with an independent risk function that reports directly to the vice chairman. Our senior management spends an enormous amount of time on risk management and had done so prior to this turmoil in the market. Indeed, our chairman is essentially our de facto CRO.

Ideally, we also want the best data and analytics, alongside the best culture. But, if I had to choose between these elements, I would go with data of lesser quality and a stronger risk management culture and communication of what it is we are trying to do. You can save a lot of time if you have this kind of common understanding with someone who is in another risk discipline. In our organisation, risk management is integrated globally and, when we have made acquisitions, risk management is the first entity that gets integrated. This can be a painful process given legacy systems and approaches, but it is extremely important to our overall risk and crisis management that we have this common thread.

AM: I agree with the point about ensuring that data and analytics are 'good enough,' as opposed to perfect. While being pragmatic and living with imperfection is a tough challenge, it's the appropriate perspective for most of us.

Risk: **Presumably, integration of systems can be difficult even without the added complication posed by an acquisition?**
Peter Davis (PD): Generally, institutions are facing a difficult decision concerning building out their infrastructure. Given experiences over the last 18 months – especially in more complex products – some have made ad hoc changes, while others have been more systematic. Absent a regulatory mandate, it is likely there will not be the same level of investment in infrastructure across all market participants. So not only can operational expense be an impediment to infrastructure, but it is also one of several issues that may help dissuade institutions from activity in resecuritisations and other very complex products.

LE: We have been working hard to integrate – from a model perspective and an analytical perspective – the underlying analytical decisions about what assets we want to buy with the ongoing buy/sell decisions that occur within investments, and how my unit treats those assets in our capital models. We use multiple systems because we seek the best tools available for each asset class. While these systems cannot 'talk' to each other directly, what we can do is take what they are telling us (directly and indirectly) about risk and use that information analytically within our economic capital model. If, technologically speaking, there was a way to feed that information in directly we would probably do it – but there currently is not. Bridging the divide between the technologies deployed on the asset side and the liability side of our business is an added challenge here. Vendor-integrated risk solutions for insurance companies that seek to tackle this issue are not quite there yet.

CM: We began to make a pretty large investment in our core analytics platform around three years ago. We have been trying to leverage that investment as deeply into the organisation as possible. But, while we are encouraging everyone from risk managers to the portfolio managers to make greater use of it, we are not telling anyone to necessarily stop using what was in place previously. You have to recognise, for example, that desks will have great existing tools that enable them to run their business well. So, in instances where it's not possible or advisable to adopt a common set of tools, you have to recognise and understand the differences. Risk management is not a science.

Donald Vangel (DV): Clearly all of these issues are of major importance: you need good data, but you cannot use it effectively unless you have good analytics. Meanwhile, the analysis is not as useful unless it's holistic from a business perspective and you are able to communicate it to senior management and elsewhere. There has been a realisation that, while we may have become accomplished at measuring risks on a stand-alone basis, the same cannot be said for our abilities when it comes to looking at all risks together across all businesses.

Risk: **The need for senior management and boards to play a role in setting the risk agenda is something that has been highlighted by the Basel Committee recently. How can risk managers work more effectively towards achieving this end?**
Yury Dubrovsky (YD): Good analytics allow you to measure risk, but not necessarily to manage it. Unless risk management has a strategic relationship with all the business lines and with the board it can all be to no avail. You also need to have appropriate staff within the risk management function: people that are conversant with the complexities involved and are able to explain what the risks are in an intelligible, non-quant way.

On a practical level, being open to focusing on different kinds of risks is important. Even when managing 'investment risk,' it's clear that, in the current environment, understanding issues related to counterparty risk, settlement risk and prime brokerage risk are of key importance. This is something that must be related simply and with recommendations that are actionable.

Risk: **The Basel Committee has also stressed the need for senior management and boards to be able to understand the entire risk profile of the firm using multiple metrics. Have firms been too fixated on value-at-risk (VAR) or other specific metrics?**
HP: Overreliance on VAR as the single measure of risk has certainly been a problem for some firms. Risk measurement is really about creating transparency. Different measures can be effective in communicating risk at different levels and in different areas. In credit risk, for example, just looking at pure concentration can be the most effective way to communicate that exposure. The goal should be to link the risk measurement to the management decisions and to the transparency that ultimately you are trying to facilitate. So it's not that VAR is the problem or that stress-testing is the answer. Tools should be used in combination and form a basis for conversation with senior management.

So, a simple exercise in assessing the concentration of exposures in multiple business lines or outright notional balances – rather than burying this information in a complex VAR model – may have averted a lot of problems. And, despite their inherent sophistication, many institutions tended to think about VAR in absolute terms, where looking at relative changes in VAR can be a more effective way of understanding and communicating risks.

YD: I do not want to spend 80% of my time cultivating risk metrics that do not necessarily mean a lot on their own. It is trends that matter. Whether you are talking about VAR, or some other measure, these numbers should serve as a conversation-starter.

MC: We clearly state to senior management what our major risks are, without getting lost in the analytical background. We are not giving them an overly simplistic version. But what is really important to them is to know that there are people looking at risk who are seeking to understand what specifically is of concern and why, and perhaps what the risk manager proposes doing about it.

AM: As a familiar headline number, senior management tends to be comfortable with VAR. During the last year, we have increased our focus on stress-testing as a supplement to VAR and other standard risk measures. The discussions surrounding stress-testing numbers are very challenging because they can be difficult to interpret from a senior management perspective. There is also the added complication that assumptions embedded in stress tests can vary considerably across businesses and some of these are not necessarily compatible.

DV: As a quick aside, I believe the regulators actually helped to create the environment (in terms of the focus on VAR) that they are now concerned with. Systemically, there has been a reliance on models that has not taken into account that models are, by definition, wrong. The key thing is to understand the nature of error inherent in models, endeavour to use the models intelligently and to try to partner with the businesses to reach a more useful perception of risk. There has been a failure in some cases to bring together risk and business issues in a coherent way. Sometimes, a firm's business reporting and risk reporting don't really seem to be talking about similar issues. Business presentations can be devoid of mention of risk, while risk presentations do not often reflect the underlying business dynamics.

LE: Judgement is at the crux of many issues and a major challenge for the regulators is going to be how to promote good judgement – something that will be virtually impossible for them to do. Actually, employing good judgement may become an increasingly tough task. Risk managers are spending an inordinate amount of time complying with regulations, proving that actions are in accord with policies and procedures, reviewing and renewing policies and procedures, and so on. It is almost as if the management of risk is an activity that is squeezed in after compliance.

DV: The modus operandi of regulators has been to force institutions to document and record how judgement has been brought to bear in decision-making, as opposed to understanding and respecting it or perhaps challenging it. Any attempt to prescribe how business judgement should be applied to decision-making is going to be a failed exercise.

Risk: **But how does that view square with that apparent shift towards a regulatory environment that is much more prescriptive?**
DV: In my opinion, the principles-based versus rules-based regulation debate is actually a false dichotomy. Before its recent foray back into prescription, the UK Financial Services Authority was regarded as the poster child for principles-based regulation, and yet it had a rule book of around 8,000 pages. There continues to be a place for principles-based regulation because regulators do not have the capacity to really prescribe how complex businesses should be managed. Principles will have to continue to guide and, inherent in that, there will have to be respect for approaches that will differ across some range of acceptable practice. But, in areas relating to capital, liquidity and risk management where shortcomings have been shown to amplify or give rise to current problems, it is natural to assume there will be more prescription.

Risk: **Understandably stress-testing is currently in the spotlight. Indeed, the Basel Committee recently introduced the concept of a stressed VAR measure using historical data from a one-year period of significant loss. Going forward, how will these and other kinds of stress-tests fit in with the overall picture of metrics being presented to senior management?**
MC: Like many others, we have moved our calculations for VAR to focus on the more recent, punishing data. But, we had undergone an evolution even prior to this crisis. We used to look at stress scenarios from some very clear points in time and we have moved towards a different approach. We look at the kinds of variables that have a significant impact on some of our major areas of exposure, and then essentially create a new scenario based on what those variables and elements might be in a stressed situation. This approach is much more useful to us than some of the classic snapshot-type scenarios because it tends to encompass more recent, and hopefully more proactive, views of what might happen. The challenge here is to continuously question and keep the risk and business groups engaged in a dynamic process and dialogue.

Risk: **Are we creative enough when thinking about stress scenarios, and how seriously are some of those more extreme scenarios being taken by senior management?**
LE: Care must be taken by risk managers not to simply come up with a worst-case scenario in order to produce a large loss number. For us, there has to be a tie back to reality as senior management and the board always ask what the likelihood of a possible impact occurring is.

AM: Scenarios must be grounded in reality. One thing we have done in certain sections, but not institutionalised yet, is to present scenario analyses in a range. So, in practice, we present what we think is a reasonable worst-case scenario (99.5% confidence interval) with a worst-case scenario based on history for the asset class along side a 'what if?' scenario. Providing management with a range based on a number of perspectives for a particular asset class provides a much more complete picture for use in decision-making.

CM: The easy way to stress test is to use the standard handful of historical scenarios, but the important point is that there has to be an ongoing dialogue about what is the prospective worst-case scenario, during which realistic worst-case scenarios are presented and assumptions are challenged. For some markets, there is relatively little historical data from which to gain insight, and it is in this kind of instance that good judgement fostered by an open risk management culture is essential for arriving at the right answer.

LV: It was this kind of judgement call that played a key role in our decision to pull out of the subprime, Alt-A and other mortgage-related markets. The mortgage data in of itself was not necessarily telling us anything helpful, but our understanding of the issues with some of these products and the non-sustainability of house price appreciation and our discussions about risk led us to exit. We understood that there was a separation of institutions between those that were originating risk and those that were holding it, and that this was going to have some fundamentally bad impacts on overall risk management. We asked ourselves how, as an institution, we fitted into this picture, how we hold capital versus another kind of institution and what this actually means in terms of risk transfer.

YD: When stress-testing, the most important question that should be asked is: what will be done with the result? But, that is just the start. If it seems that a business activity is in some way going too far, what course of action as a risk manager could you take? Will senior management agree that a particular scenario is realistic, and what kind of assumptions around correlation are you making – are these justified? Answering these kinds of questions can ensure that a risk conversation with senior management gets off to a good start, but you also need to marry the loss on a stress test to some return metric to make its output meaningful and actionable.

Risk: One major kind of stress to have affected markets is the failure of major financial institutions. Last year, the Credit Risk Management Policy Group III called for firms to ensure that their systems were capable of conveying accurate and detailed measures of credit risk exposure across all counterparties in a matter of hours. What challenges do this ambitious goal, and the management of counterparty credit risk in general, pose at the moment?

PD: Institutions are beginning to realise that they are taking on exposure in less obvious and indirect ways, as well as in more tangible forms. Understanding the collateral in place, alongside the other protections that you may have, and how to aggregate all this, is a challenge. Historically, some institutions have relied heavily on external rating and assumed that a top-tier institutional counterparty entails little default risk. That has changed in today's environment. As a consequence, you need to ask yourself how you ensure that you have the most current information on the strength of that institution and, more subtly, understand how that relates to the strength of other counterparties too? The informational challenge becomes greater still when considering complex financial instruments.

LE: We have invested heavily over the last two years to develop and implement a credit aggregation system that is designed to pull together all our exposures, enterprise-wide. We have also given extra attention to counterparty exposures arising from our derivative book. We look at both the mark-to-market and also the potential future exposure to ensure that we are carrying enough capital. We have a heightened awareness of the importance of our credit support annexes and the importance of knowing where collateral is at all times. Having internal systems that will allow you to track those things and ensure the proper legal documentation is in place.

YD: When it comes to thinking about the counterparty risk associated with derivatives, proper and efficient booking is as important as anything. If it takes a while for you to book, or you book incorrectly, it does not really matter how sophisticated your models are – you are going to misrepresent the risk. Ensuring that your operations and back-office departments are capable of efficiently handling the trades is extremely important. Recent experience has demonstrated the importance of understanding the specific entity within an organisation that you are dealing with and understanding in detail the nature of the collateral and legal relationship you have entered into.

MC: We have been approaching counterparty risk as not only a question of collateral, but also more of a question of credit risk appetite. What we are comfortable with in terms of thresholds and products changes on an ongoing basis. This kind of dynamic approach is obviously not always very popular with traders as we are often changing the rules of the game at a moment's notice. But it has made our senior management feel a little more comfortable about continuing with certain kinds of business that other firms perhaps have pulled back from.

AM: An important aspect of what we do in regard to counterparty risk is legal document reviews. We have found in a number of cases that, because standards change over time, as do lawyers, it is quite useful to review document clauses and legal rights to be sure that they are well understood and, if necessary, are modified to provide enhanced protections.

Risk: How do you keep abreast of all the intricacies of documentation, especially given the speed with which significant market events are occurring and developing right now?

AM: We do not have the luxury of a system that has all the various clauses in it. What we did is establish a working group that, on a prioritised basis, has worked its way through the portfolio. We started with the broker-dealers and so were able to be out in front of a lot of those issues last year. The initiative is ongoing.

HP: The issue on data quality is now viewed as mission-critical by many firms. In a crisis, you do not have the luxury of time – irrespective of whether you are talking about information that is buried in your documentation or the precise value of your collateral.

Risk: This kind of issue touches on a broader question that many institutions are now asking themselves about whether they have adequate risk management resources.

LE: Our view is that we will not buy any security on which we cannot do the fundamental credit analytics – we will not rely solely on rating agency ratings. We will not be in asset sectors that we cannot analyse and work out our own cash flows. There appear to be many smaller institutions that cannot necessarily say the same. Maybe it worked out well for them in benign times. But now, a lot of institutions are grappling with the trade-off between the cost of putting resources in place, versus the ability to be active in particular kinds of asset or product.

HP: When you look at how market cycles and bubbles develop, it can often be observed that problems arise when inadequate infrastructure accompanies rapid growth in product volumes and profits. Having a healthy tension between product innovation and product control has been one of the consistent hallmarks of many of the firms that have fared better during this crisis. It is unsurprising, therefore, that many of our clients are considering how they may better ingrain the product approval and maturation process within the risk management function.

Risk: And this kind of approach echoes the broader cultural shift that was mentioned earlier around risk management becoming more of a business decision-making tool?

HP: Right. Irrespective of the precise form of risk reporting structure in place, reporting recipients are not simply looking for pure risk information. It needs to be framed with a view of the business environment and what's going on in the firm from an earnings perspective. If as a risk manager you can link those three things, you have a much richer piece of information that can truly make an impact. ●