



Managing Risk in a Volatile Landscape

Also in this issue

- FIRST INTERVIEW WITH ADAM FARKAS
- LOAN REFERENCE RATES: LENDER OR BORROWER – DO I OR SHOULD I CARE
- CREDIT RISK: MAKING THE “RIGHT” DECISION
- SIGNIFICANTLY ENHANCING RISK MANAGEMENT IN THE INSURANCE INDUSTRY
- AUDITING SOLVENCY II – ORSAs FOR CORSAs
- WHEN THEY CALL YOU – WHO YOU GONNA CALL?
- THE FUTURE OF GLOBAL FINANCE

Dear Subscriber

Welcome to our latest issue of the Global Risk Update. As we go to press we have just seen the results of the **stress testing** of European banks published by the European Banking Association as well as the new proposals for additional capital for systemically important institutions published by the Bank for International Settlements.

In this issue we commence with the reprint of a roundtable discussion published by *Management Today* looking at **market volatility**. The comments highlight where problems exist and where they are to be expected in the future. From my point of view I remain extremely cautious regarding the likelihood of either Euro zone or the USA to actually solve their deep seated problems. For me a debate about default or downgrade based upon a few clauses in a muddled agreement do not address the fundamental concern of the imbalances existing in both areas.

Perhaps we would be better just accepting that some countries cannot repay their **debt** and others are really not AAA no matter how much we try to convince ourselves otherwise. The interview with Adam Farkas is the first since he has taken up his role at the **European Banking Authority**. In it he does clearly identify that there will be new legislation in Europe although exactly how this will work given the range of other bodies and structures within the European experiment will have to be seen.

Credit risk is again in the news. The results from institutions such as Bank of America highlight that concentrating on key risk areas remains crucial for firms. In this issue we have two articles on the subject of credit risk – the first from Simon Ling-Locke looks at loan reference rates whereas the second from Tracy Williams considers how to make better decisions.

Solvency II has been delayed by a year to give firms time to catch up on the changes necessary. This also provides the opportunity for internal auditors to review the progress that a firm is making in that regard. In his article John Webb looks at the approach to be taken to **Auditing Solvency II** and also the challenges that are likely to exist in practice.

The additional two articles are broader in their approach. The article on **Risk Governance** from Mary Phibbs looks at the role of the risk function and the approach to be taken to manage enterprise risks. The next looks at the future of global finance and poses some complex questions regarding the law of unintended consequences.

We are going through a period of massive change with the banking industry being at the centre of it. That the key problems are actually with **governments** does not in any way disguise the impact on banking regulation which we are seeing. From the proposed additional tax levy on banks in Europe to the **central counterparty** proposals for derivative instruments the industry is under a greater pressure than has ever been the case before. The publication of **stress tests** in Europe has heightened tension and may well actually contribute to exactly the issue it was seeking to avoid. I am sure that we will return to many of these themes in future issues and as always we would be delighted to hear from you with your views or comments on the issues presented.

With best wishes



Dennis Cox BSc, FSI, FCA
Chief Executive Officer



INDEX PAGE

MANAGING RISK IN A VOLATILE LANDSCAPE	3
FIRST INTERVIEW WITH ADAM FARKAS	5
LOAN REFERENCE RATES: LENDER OR BORROWER – DO I OR SHOULD I CARE	7
CREDIT RISK: MAKING THE “RIGHT” DECISION	9
SIGNIFICANTLY ENHANCING RISK MANAGEMENT IN THE INSURANCE INDUSTRY	13
AUDITING SOLVENCY II – ORSAS FOR CORSAS	16
WHEN THEY CALL YOU – WHO YOU GONNA CALL?	19
THE FUTURE OF GLOBAL FINANCE	23



PLEASE CIRCULATE TO:

- Chief Financial Officer
- Head of Risk Management
- Head of Internal Audit
- Head of Operations
- Head of ALM
- Head of Treasury



TO THE EDITOR

Do you have risk issues in your organisation or region you would like to share? Email your thoughts to the Editor at DWC@riskrewardlimited.com

Risk Reward Updates, a regular journal covering insights and global risk issues of interest to the banking, insurance and financial sectors in developed and emerging markets.

Available by subscription via the website www.riskrewardlimited.com. To unsubscribe at any time simply email the editor at LM@riskrewardlimited.com and enter UNSUBSCRIBE in the subject field.



Risk Reward Limited, serving the banking and financial services sectors with risk consultancy and risk training in developed and emerging markets since 2002. Risk Reward is registered with UK Companies House no 4346234.

MANAGING RISK IN A VOLATILE LANDSCAPE

How has the financial crisis changed the way we take risks and manage them? What does a healthy risk culture look like – and how do we create one? Just some of the questions RBS InFocus put to a panel of seasoned risk professionals at London's Soho Hotel.

Ian Wylie, editor, InFocus

Can I begin by asking: What has changed in the landscape of risk management – how would you tell the story of what has changed in the past three or four years?

Alan Pratten, managing director, clients and development, Heath Lambert

It depends on the sector. If you are in oil and gas there is 10 times more debate in terms of management of health and safety, following the BP oil spill. If you turn to financial services, regulation is now a massive issue. The Financial Services Authority employs three times the number of people it did three years ago. Do we follow what has happened in the US and get to a point where advisers do not advise because of regulatory risk? What does that mean for you as a director or an officer of an organisation?

Elaine Heyworth, head of risk management, property and workspace development, Everything Everywhere

Everybody is talking about risk, whether it is insurance and banks or petrochemicals or grocery shopping. The subject of risk has just elevated.

Dennis Cox, chief executive, Risk Reward

For the executive boards we are speaking to now, risk is no longer the meeting they have just before lunch. We always felt that we spent so much time producing papers that nobody really read. But boards of directors now realise that they have risk very clearly in their sight, and people are looking for them to take ownership of their risk management. That is scaring both non-executive and executive directors, and I do not think the skills are necessarily always there within those teams.

Carolyn Williams, head of thought leadership, Institute of Risk Management

People are increasingly saying to themselves: 'What could be

our BP? What could cause an incident of that size, that nature, that damaging to reputation?' and working backwards from that.

Paul Howard, head of group insurance and risk management, J Sainsbury

I don't think things have changed dramatically. I think good, well-managed organisations have always considered risk. I think there might be a higher profile externally, absolutely, but I think ultimately you can take away the risk from risk management and say it is just good management.

Andrew Harrison, managing director, energy and infrastructure, RBS Corporate & Institutional Banking

That's a good point, but for some organisations, such as BP and RBS, the unthinkable did happen and that has raised the profile of risk in general and brought it to the very forefront of the management and leadership agenda.

Paul Howard There was a disconnect between accountability and responsibility as well.

Mark Spicknell, head of business operational risk, RBS Corporate & Institutional Banking Part of the problem may have been a lack of clear definitions about who is accountable, what responsibility means, and what the penalties are that go with that.

Elaine Heyworth I think one of the biggest mistakes was splitting regulatory into three different areas: FSA, Bank of England and the Treasury. When you start splitting accountabilities and responsibilities, people are never quite sure who is in charge. In our business, we always have one leader, which means we can manage most crises well. If you have three people trying to own it, it just becomes a mishmash.

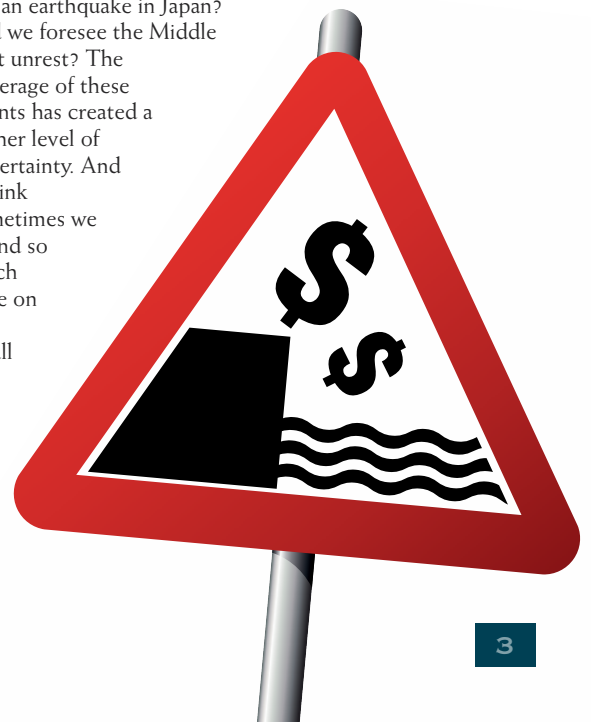
Mark Spicknell Chief executives are

switching on to the fact that they are accountable, and that is why it becomes a board agenda item. They are discussing it much more than they previously have.

Alan Pratten But how do you get the risk in the trenches up to the boardroom as quickly as possible? I think it is a massive issue for a board member to actually evaluate this huge wad of information that comes to you. I think that is a big issue for our clients.

Mark Spicknell In our business, risk management reports would previously be used as a performance measure – which meant that sometimes people would not escalate an issue, because of the impact it may have on them or their department – when in reality it's better to bring these things out into the open to get them aired and dealt with.

Dennis Cox Another change is that we are now living in a world where you are wondering what you are going to see when you turn on the television. Did we expect to see an earthquake in Japan? Did we foresee the Middle East unrest? The coverage of these events has created a higher level of uncertainty. And I think sometimes we spend so much time on the small



MANAGING RISK IN A VOLATILE LANDSCAPE

things that we miss the big things.

Andrew Harrison The catalyst that has changed the whole dynamic is social media. Facebook, Twitter, the internet are all uncontrollable. News is available instantaneously – but the news that comes through is often raw and with no government or editorial oversight.

Ian Wylie But, as people who want to identify, assess and measure risk – is it not better for you to have access to all that extra information?

Paul Howard It is, but the real challenge is: what are the filters? There is so much noise, and there is so much good stuff, but we have a finite capacity.

Dennis Cox And the way the markets move now is so much more volatile. For a business, that makes it really hard to plan. For example, what is the oil price going to be like in two weeks' time, let alone a year's time?

Ian Wylie Before we depress ourselves with paranoia about all these acute events over which we have no control, how do we embed a healthy culture of risk awareness within our organisations?

Paul Howard By not ignoring the external environment, as challenging as it may be. Keep horizon-scanning so that your threat radar reflects things that are happening. It is incredibly difficult to be right on everything, but (you should maintain) a wide perspective – not just on your sector or organisation, but looking as widely as you can.

Elaine Heyworth There is also an element of making it personal to everybody – 'if this was a member of your family, how would you feel if you treated them badly as a customer, or if you heard they got treated badly as a customer?' Some employees think risk management is scary. We need to demystify risk by making people realise that every time they get out of bed and don't trip on their slippers, they are doing risk management.

Andrew Harrison It is easy to create a risk culture that always says no; it is very difficult to create one that says yes. It is easy to pick out the risks, but

actually very difficult at times to ask, on balance, where do I sit? Finding risk professionals who are able to do that and have the confidence to do that is probably the key to success.

Dennis Cox It comes back to the point about social media – it's about becoming more nimble. Some organisations have built structures that stop them moving forward. They just cannot get the product out fast enough. The nimble organisations are going to be in a much better position, but it puts more pressure on their risk guys.

Mark Spicknell We need to be careful that we don't create a regime where risk frightens everyone. Risk is there to be managed; it is not to be avoided. So we are trying to be really clear on what appetite levels we are prepared to set, what things are important to us, tying that into the business strategy as well, rather than just looking backwards and reacting to events.

Alan Pratten And I think it's important to encourage a nonblame culture – which is a lot easier said than done, particularly in more aggressive firms.

Elaine Heyworth I think visibility of the risk manager is important. If you go in front of your senior VPs and they recognise you, they will take what you are saying to them that much more seriously. I know risk people who are astonishingly good but very quiet and very shy. They just do not get the visibility that I do because I am in people's faces. Sometimes, it takes personality to get you in front of the senior executives.

Carolyn Williams It's something the Institute of Risk Management is going to be looking at: competency frameworks and learning how to talk simply about something you know a lot about. We're trying to provide an education that gives people the background and the knowledge, but the skill is then to make it simple.

Mark Spicknell I agree that risk communities can generate huge reports, a huge amount of metrics – which are good to have in your back pocket. But what you really need to be able to do is pull out the key things that will be of interest to the board. I

think it's also important to be out on the shop floor, listening to the noise and getting feedback. It's actually when you are out on the frontline talking to the people that you get that sense of where the risks are, what is coming along the track that could hurt your organisation.

Elaine Heyworth The people on our risk and steering committee do not come from a risk department. It's made up of risk specialists from each of our business areas. So it's people who understand their business areas – not a bunch of risk-based specialists. That brings a lot more credibility.

Ian Wylie What are the skills a risk professional will need?

Carolyn Williams Communication skills are absolutely key. Boards now have a responsibility to understand the risks they are facing and they are going to need help with that, and whoever looks after risk must be able to communicate from board level right down. But that has to be built on a solid knowledge of the tools, techniques and approaches.

Dennis Cox There is nothing that replaces experience and knowledge. You cannot just get it from a book. You do not have to be the expert on everything – you just have to know where to get it from when you need it. Having the communication lines, the ability to influence, and the ability to be really unpleasant when you have to – they're important attributes, too. If I go to a firm and they love their head of risk, I am wondering, are they just saying yes to everything, and are they really balanced? Sometimes you do have to take unpopular stances, and you have to have a thick enough skin to be able to do that.

Paul Howard But I think it very much depends on what your team looks like at the moment, and you do not want people that all come from the same background. It is absolutely essential to have a really good range of people from a range of sectors – you will ultimately arrive at better decisionmaking.

Reprinted by permission from Management Today

FIRST INTERVIEW WITH ADAM FARKAS, EXECUTIVE DIRECTOR, EUROPEAN BANKING AUTHORITY

Adam Farkas, First Executive Director, was interviewed in London by Dennis W Cox, CEO, Risk Reward Limited. The European Commission drew up the final shortlist of candidates from which Adam Farkas was selected as Executive Director by the EBA Board of Supervisors on 2 March 2011. The Executive Director is charged with the day-to-day management and operations of the Authority. He will remain in office for a five-year term and may be re-elected only once. Mr Farkas, who has recently served as Chairman of the Hungarian Financial Supervisory Authority and has extensive financial services experience, undertook his duties as Executive Director of the EBA in mid-April 2011. This is his first interview to industry.



DWC: Shall I start with the question, generally, what do you consider to be the scope of the EBA?

AF: Three areas will be our main focus:

Rule making/regulatory policy

The EBA has clear powers set out in the Regulation establishing the Authority and they include, among others, the obligation to draft binding technical standards which will then be endorsed by the EU Commission and become directly applicable regulation across Europe. The primary aim of our regulatory efforts is to create a single rulebook and thereby a level playing field avoiding regulatory arbitrage. Regulatory arbitrage was a key problem of the former regulatory architecture.

Oversight/supervision

While national regulators will continue to perform day-to-day supervision of individual institutions, the EBA will undertake regular Risk Assessments (part of which is the EU-wide stress test exercise) and develop methods and means to ensure that there is a level playing field in the supervisory activities of national authorities. The objective is to create a more homogenous European culture of supervision. In terms of supervisory colleges, our target will be to improve consistency in the functioning of supervisory colleges across Europe. We will also have a role in dispute resolution in case of disagreement among national supervisors and we will be conducting peer group reviews. In our oversight activities, which will also see the involvement of the ESRB for macro-prudential assessments, the EBA may issue recommendations to national authorities if certain developments occur and we get the signal either from the ESRB or through our own risk assessments that there are risks in certain countries, institutions.

Consumer protection activities will be an increasing function of the EBA and we will also be looking at areas in cooperation with the European Securities and Markets Authorities (ESMA) and the European Insurance Occupational and Pension's Authority (EIOPA)

We will try to focus on a few areas. We will not have involvement in minor areas as we have limited capacity and resources for day-to-day consumer protection. While the EBA will be primarily focussed on macro regulation and guidance, there will also be opportunities for the EBA to make micro recommendations regarding specific institutions, groups of firms or industries. These would then be implemented by the relevant local regulatory body. In terms of supervisory colleges, we will target the improvement in the functioning of the colleges, consistently across Europe, developing cross-border groups and conducting peer group reviews. We will look for solutions to ensure that regulatory arbitrage does not exist and this may entail considering business areas which may migrate from the banking sector.

DWC: How will the EBA work with the EU Commission? What do you consider to be the challenges or opportunities?

AF: Specifically regarding the Commission, this is a key relationship for the EBA. A close relationship will be maintained with the key stakeholders including with directors within EU organisations and the EU Commission. Some areas that will be of concern to the EBA will require legislative changes. These will be implemented by the commission and the Council of Ministers. The EBA of course will be available to advise the relevant groups throughout this process.

FIRST INTERVIEW WITH ADAM FARKAS

DWC: Given the developing regulatory status of Basel III, What do you expect to be the key challenges?

AF: The implementation of Basel III in the EU in the form of CRD 4 has not been finalised yet, and the EBA's opinion will have an impact on this. Once CRD 4 is approved, the EBA has the power to draft binding technical standards for its implementation. The standards when drafted by the EBA will then need to be endorsed by the EU Commission. The challenge is that the EBA expects that at least 40 standards will need to be drafted for implementing Basel III in the EU. We will also undertake impact assessments and carry out public consultations in the drafting process. There is a reasonable expectation that the deadlines within Basel III will be met within Europe. The EBA will do everything within its power to make contributions to ensure that organisations meet the Basel III deadlines. Basel III does introduce additional complexity to regulation in terms of capital and approaches. There are not specific challenges for the EBA although it is perhaps cumbersome and the level of complexity does need to be assessed. We do need to be fully prepared. Perhaps the key challenges are to complete the full picture. It is more complex than before but I am not surprised on the level of complexity, although it needs to be carefully assessed.

**DWC: What will be the status of the guidelines issued by former bodies i.e. CEBS?**

AF: Some of the guidelines will become binding regulatory standards but the EBA will continue to produce recommendations/ guidelines that will not in themselves be legally binding. The legislation based on the Basel requirements will result in technical standards from the former CEBS guidance notes becoming statutory requirements. The matters that will be left from the former guidance will then need to be revised and reissued. The former guidance may need to be varied in some cases.

DWC: Will guidance be issues on hybrid capital instruments, and what will be the impact on firms that have already issued such instruments?

AF: I will not comment on specific instruments. This is an issue which is exercising our attention, and yes the hybrid instruments will be in our standards. The definition of what is considered to be capital (tier 1, tier 2) is an issue, and what instruments can be considered in which category. Once the final version of CRD 4 is released, the EBA is mandated with drafting binding technical standards which will provide a challenge for institutions and result in changes. It will not

necessarily be certain that all existing hybrids will comply with this new guidance, so institutions may need to find a way to migrate to this new approach.

DWC: What will the EBA's role be regarding competition in the banking industry?

AF: The EBA will have a primary role in ensuring that unfair competition does not exist as a result of regulatory arbitrage. In terms of general competition within the European Banking Industry, this is outside the remit of the EBA which is not a competition authority. The EBA does not have a mandate to run competition procedures for itself. However, if consulted in matters relating to competition, the EBA will be responsive and participate in relevant competition procedures for example answering technical questions.

DWC: Do you think there will be a move of business from banking to non-banking firms? Will the EBA have/perceive any role in such areas?

AF: We are concerned about regulatory arbitrage. This is an area we will keep under review and, if necessary, we will make recommendations or take regulatory initiatives to deal with such matters.

DWC: What do you consider to be the role of liquidity management? Do you need other powers in this or other regards?

AF: Clearly it is not the EBA's role to provide liquidity, as the EBA does not have balance sheet capacity. However, if as a result of our risk assessment or stress testing exercises we identify liquidity issues with groups of firms, countries or parts of the industry then we will in the first instance communicate our concerns to the new European Systems Risk Board (ESRB). We will also receive signals from them in case coordinated action is required by macro-prudential Authorities.

DWC: How will the EBA communicate with its various stakeholders?

AF: Communication from the EBA will take place in a number of forms.

1. Regulation of the EBA requires the establishment of a banking stakeholder group. This is already in place with elected members consisting of the academia, consumer associations, as well as industry representatives. The first meeting of the BSG took place in May.
2. There will also be public consultation; this is where we can invite opinions on common standards, our main channels for this being via our web page.
3. Informal channels/dialogues will also be used as needed with industry representatives and individual institutions to enable us to exchange views and receive feedback.

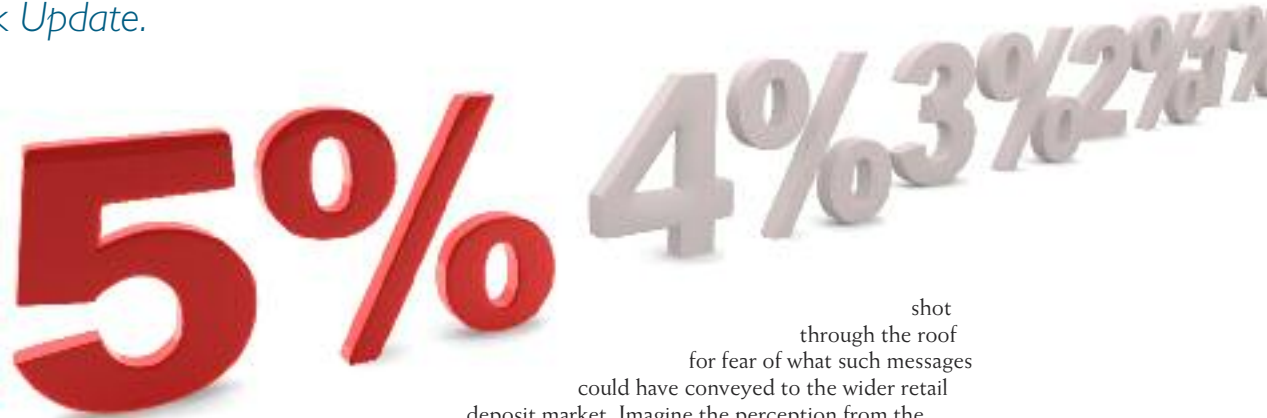
DWC: Thank you, Mr Farkas, for your candor and frank responses and good luck in your new role and wishes for success to the EBA.

LOAN REFERENCE RATES: LENDER OR BORROWER – DO I AND SHOULD I CARE?

Simon Ling-Locke is a bank credit risk specialist and a regular contributor to the Global Risk Update.

When we consider lending by way of loan facilities to most borrowers from the mid-sized corporates to the largest multinationals around the world (whether on a bi-lateral, club or syndicated basis) we know that it will have been documented through a facility agreement and that a number of those provisions in the agreement will have been heavily negotiated between lender and borrower, particularly around margins, fees, covenants and borrower undertakings. These are known as soft provisions which will tend to be tailored to each deal as against the hard provisions where one would expect the legal wording in agreements to be mostly standard from one agreement to another (such as the definition for interest periods). Historically the definitions for LIBOR or EURIBOR¹ and those for market disruption² were considered to be hard provisions which did not require heavy negotiation and were accepted by lenders and borrowers alike without question. That perception changed it seemed for a period of time during 2008, particularly after the collapse of the Icelandic banks and Lehmans, but has since drifted back into obscurity. Is that right and should we be concerned if there is another bout of severe market disruption in the interbank markets?

Firstly we must define what LIBOR means since it is used as a proxy for each lender's cost of funds. LIBOR (or EURIBOR in the case of lending in Euros) is meant to be the rate at which large soundly rated banks (A and AA type rated institutions) offer money into the market whilst LIBID is the rate at which these banks bid for and accept deposits from the market. The premise that LIBOR 'is the cost of funds' for a bank or financial institution has though been accepted as the appropriate reference index for many years but in reality it is not! Particularly in 2008 many of the major banks of the world were technically quoting LIBOR rates which were significantly below their own money market cost of funds (let alone those of other smaller banks and financial institutions) but they were not actually willing to lend out to other institutions at their quoted LIBOR rates. This, I think, reflected both the fear factor of whether the requesting institution might be the next Lehmans to fail reflecting the opaqueness of business activities in the financial markets and hence with whom the risks actually lie since so much of the business is handled on an OTC³ basis, but also a desire to pretend that their own funding base had not, so to speak,



shot through the roof for fear of what such messages could have conveyed to the wider retail deposit market. Imagine the perception from the ordinary man or woman on the street if they had heard after some sensationalism by elements of the press that their bank could only fund itself at excessive rates in the money markets whilst Base, Fed and ECB rates had come down to such low levels, especially after the very public failures of Northern Rock, the Icelandic banking system and Lehmans which had already shaken their faith in the banking system to its very foundations.

In reality almost all lenders do not match-fund loans but instead fund from available liquidity and intra-day treasury activity with more of their hardcore asset base funded by a combination of deposits, longer term debt issuances, share and quasi share capital and retained earnings. Clearly therefore LIBOR does not reflect a lender's cost of funds. Indeed the lender also has to consider requirements of the Basel accords on cost of capital and the commercial return it requires for the risk of lending to a particular counterparty. These elements are reflected in the margin which is added to LIBOR but if LIBOR is not a true reflection of 'funding cost' how will the lender know if it is achieving an overall return which is commensurate of its funding costs and desired return for the risk level accepted?

One way is for the bank to charge its own 'LIBOR' rate. Indeed in the 1980s it was not so unusual to find a bank on a bi-lateral facility offering its customer a LIBOR rate determined by its own treasury department rather than from an aggregated screen rate. However, this effectively switched the bank's own funding risk onto the borrower and hence the borrower could find that it was paying not just for its own risk in the margin but also for the risk perceived by the market of that lender who had to fund itself above LIBOR. This was particularly evident during a period in the 1990's, after a number of the major Japanese banks had suffered heavy losses from previous poor property lending decisions and prior to the Japanese government having introduced bank support programmes. During this time some of the Japanese banks might have had to pay perhaps 50-100bp over LIBOR to fund themselves from the market.

If LIBOR is determined by the lender itself then there is

LOAN REFERENCE RATES: LENDER OR BORROWER – DO I AND SHOULD I CARE?

potentially the risk of forcing a borrower to effectively pay three elements: the market rate for LIBOR, a margin to cover the lender's individual risk of funding itself and a margin to cover the borrower's risk and profit margin sought by the lender! For example a bi-lateral loan at LIBOR plus a margin of 50bp from one bank could effectively have been say LIBOR+50bp plus a margin of 50bp from a Japanese bank. Conversely, if LIBOR is determined collectively by a few large market players as displayed in a screen rate or a reference rate, then it may well not reflect the true funding cost of many of the other players in the market. Indeed during the 2000s it was well known in the syndicated loan market that more and more of the small and medium sized players were being squeezed out of the corporate market because the LIBOR and margins on offer were insufficient to cover their true cost of funds and desired profit targets, leading some of these institutions into higher risk areas such as leverage financing and securitised deals with even more sorry consequences!

The problem for a number of lenders was compounded in 2008 and into 2009 when quoted LIBOR rates did not reflect even the cost of funds of those institutions providing the quotes. In syndicated loans across the world during this period some lenders, usually small domestic and regional banks, tried to invoke market disruption clauses which, if successful, would have allowed them to have charged more realistic market funding rates. However, invariably these lenders did not form a sufficient quorum to actually be able to invoke the clause and were thus frustrated in their actions and as a consequence suffered losses as they were forced to continue to lend at rates below their own cost of funds. This dilemma has subsequently diminished somewhat as liquidity has come back into the interbank market. Nevertheless markets are still quite fragile and significant risks remain which could once again lead to a drying up of liquidity and false LIBOR rates being quoted.

Is there an answer? Clearly allowing lenders to quote their own LIBOR only switches the risk onto the borrower and should a borrower necessarily be penalised just because a lender's own credit standing has diminished since the loan was first provided? One answer which was considered in the syndicated loan market in the 1980s was the concept of committed revolving back-up loan facilities with uncommitted tender panels incorporated within them, known as MOFs⁴. Under these structures a borrower would ask its lenders to bid for short term loans. Each lender had the choice whether to bid at whatever rate they chose, or not to

bid at all, on the uncommitted tender panel whilst the borrower had the choice of either accepting some or all of those bids or reverting to a draw-down on the committed loan facility. Under these structures some lenders would sign-up to both the committed and uncommitted facilities while others just participated in the uncommitted lines. This structure allowed the borrower to undertake best price discovery and provided market discipline amongst lenders in terms of their treasury activities. However, it also had perverse consequences which became apparent during the recessionary period of the early 1990s. On a number of these deals a previously investment grade corporate rapidly fell into difficulties resulting in breaches of covenants and an inability to drawdown under the committed facility. At this point it was often found that the lenders who had drawn exposure were those participating in the uncommitted lines and were expected, as they had drawn exposure, to work through long-term restructuring plans whilst committed but undrawn lenders tried to walk away relying on the fact that covenant breaches prevented new committed drawings! For the borrowers as well it proved more complicated because lenders with drawn exposure were not necessarily their 'core banks' so increasing the difficulty of undertaking a workout.

Another option is to use a wider representative group of banks within each syndicated deal to quote each of their cost of funds to represent their average cost of funds which is then applied for all the lenders. Again, though this does require each reference bank to quote its true cost of funds. Furthermore, in the cyclical field of syndicated lending, competition amongst arrangers increases all too quickly and after the crash of 2008 has already resulted in more and more give-aways to borrowers including the use of screen reference rates rather than a reference rate from a group of quoting banks within the actual syndicate.

Alternatively, the use of prices quoted for government securities, such as UK Gilts or US Treasuries, as an index could be used. This still does not resolve the fact that lenders fund the loans at their own cost of funds. It might, however, overcome the problem of miss-priced quotes from major banks being used for screen LIBOR/EURIBOR rates. In reality though, the chances of changing a whole market would seem to be very low, so for lenders the truth is that the margin should reflect not just risk, opportunity cost, capital adequacy implications and profit margin but also needs to price in liquidity risk of funding.

Simon Ling-Locke can be reached at SLL@riskrewardlimited.com

¹ IBOR = London Interbank Offered Rate

EURIBOR = European Interbank Offered Rate

² A market disruption event means one of the following events:

- (a) if on the quotation day for the relevant interest period the screen rate (by the British Bankers Association, or the Banking Federation of the European Union if for Euros) is not available and none or only one of the Reference Banks supplies a rate to the agent to determine LIBOR (or EURIBOR); or
- (b) before close of business on the quotation day for the relevant interest period, the agent receives notifications from a lender or lenders (whose participations in the loan exceeds a certain percentage of that loan) that the cost to it of obtaining matching deposits in the relevant interbank market would be in excess of LIBOR (or EURIBOR).

³ OTC = Over the Counter, a private trade made directly between two parties which means that there is counterparty risk. This is different to trading through a regulated exchange where that risk is removed through the use of a CCH (Centralised Clearing House)

⁴ Multiple Option Facilities

CREDIT-RISK MANAGEMENT MAKING THE “RIGHT” DECISION

Tracy Williams, former director at JPMorganChase, New York, is a regular contributor to the Global Risk Update.

The senior risk manager at a major bank faces a routine day. The head technology banker wants a decision to lead a billion-dollar syndicate-finance deal for a telecommunications company. The capital markets head wants to do a billion-dollar swap deal for a hedge fund with a volatile track record. Another banker wants to do a variation of a “covenant-lite” deal, where the borrower doesn’t represent it is performing up to financial standards.

Another wants permission to wire out a billion dollars on behalf of a client with no cash in its accounts. Another asks for guidance on how to handle a client that just announced bankruptcy. And it’s not yet 10 a.m.

For the senior risk manager, it’s just another day—an anxious sequence of decisions that will have impact on business groups, growth, clients, bankers, compensation and the long-term risk profile of the institution.

How do risk managers make decisions? How should they? How can they learn from mistakes of the past or decisions others made that triggered the recent financial crisis or set it in motion?

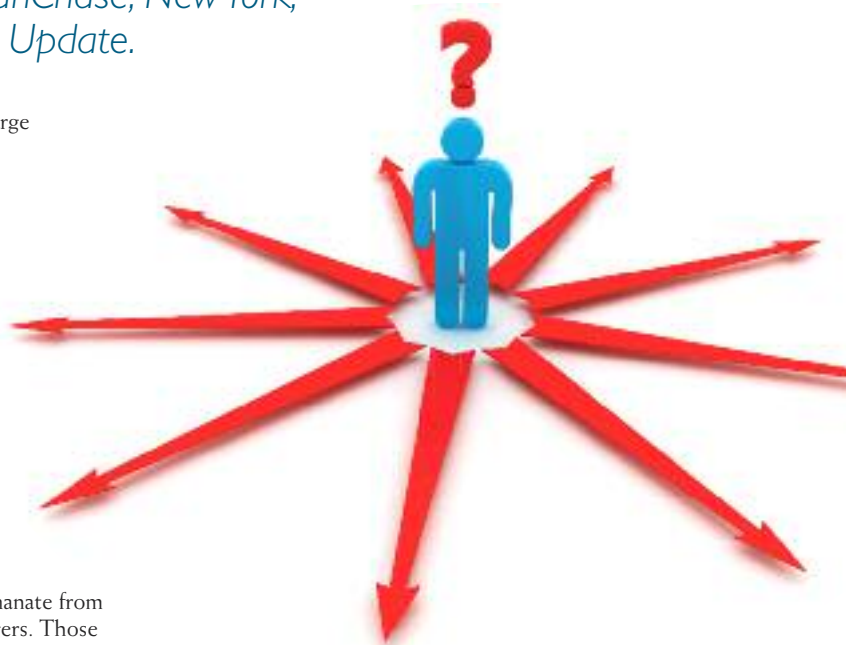
Experienced risk managers are accustomed to making decisions, setting guidelines, and establishing policy. Some enjoy the privilege of having impact. Some shy from the responsibility and defer to others or to a committee. Most are used to the crushing demands of business leaders, regulators, clients, and bank boards. A trading desk demands to do a complex, mind-boggling trade. The investment-banker wants to do a deal before it’s lost to a competitor. Regulators press for more information. The CEO wants

to review exposures to large clients. All in a day.

How does the risk manager ensure the right decision is made—free of subjective viewpoints, free of biases and without catering to the specific interests of stakeholders? How do they extricate themselves from the pleas of others to make the best decision?

Risk decisions usually emanate from a hierarchy of risk managers. Those with experience or have proven records in past scenarios or transactions are granted more authority. The hierarchy determines who makes the decision and how. Risk managers will get in-depth input before decisions are made. They review pages of analyses, hear business arguments, and host meetings to discuss pros, cons and points of view. They confer with peers and business leaders. When it is time, they make a final decision—yes, we proceed; no, these aren’t the kinds of exposures we want; or maybe, if you get more details and answer more questions.

In today’s fiercely competitive environment, risk managers are asked to make decisions with little time to ponder or without time to understand the long-term impact or realize the precedent the decision might be making. Everybody pushes for an answer now, because if the deal, trade or transaction is not made, the client or counterparty will flee to another bank – along with potential revenues.



So the best, shrewdest risk managers learn how to make decisions with their backs to the wall and in the face of what appear to be threats or undue pressures. They understand the habits or styles bankers and traders, who keep pressing until they hear “yes” or seek out other risk managers with similar authority to appeal a “no” decision.

The best, however, avoid threatening situations and set parameters in advance. They set guidelines for clients, exposures, risks, deals and trades and describe explain the transactions they say they will likely approve. They have discussions with bank units about risk profiles, trends, prudent risk-taking, clients and risks-vs.-rewards.

Thus, bankers and traders operate knowing what will be approved and what won’t. Still, backs-against-the-wall situations or midnight calls inevitably arise. With guidelines and benchmarks,

CREDIT-RISK MANAGEMENT – MAKING THE “RIGHT” DECISION

there will at least be blueprints around which critical decisions are made.

Impact of Decisions

To make the right decisions, risk managers should know the stakeholders – whom major decisions might affect. A decision on a transaction made in one day can have impact on businesses and portfolios for years. Who is affected by a risk decision? It can be:

1. Business units, who rely on risk managers to approve deals, transactions, and trades that influence growth, performance and the business unit's niche among competitors and others in the industry.
2. Employees, who will be affected by decisions that affect business output, productivity, internal visibility, and incentive compensation.
3. Senior management, whose management of businesses will be influenced by decisions across portfolios, exposures and bank products.
4. Clients/counterparties, who rely on decisions for deals or trades that have pivotal impact on client businesses, expansion, growth or hedging strategies.
5. Other risk managers, who assist in managing portfolios across the bank, who decide whether overall risks must be hedged, who oversee policy and who seek to avoid risk concentration.
6. Boards of directors, who oversee bank performance, must ensure prudent management of risks, clients and portfolios and ensure risks are measured and diversified.
7. Regulators, who enforce legal guidelines, but observe trends in the bank's risk profile and evaluate specific risks, clients, and products.

Decisions tied to large exposures will have a visible impact and might initiate a response from stakeholders. The decision could raise a flag with regulators, could impede a client's planned acquisition or could affect a banker's bonus. A decision, too, could be the difference between a bank surviving a crisis or being overcome by it.

Decisions tied to small exposures aren't visible, yet the cumulative effect of dozens or hundreds of small exposures will have a substantial impact on some stakeholders.

Risk managers, therefore, should be aware of how the decision affects any among this group and should measure both the short- and long-term impact.

Influences in Decision-Making

Experienced risk managers know their clients, portfolios, counterparties, and businesses. They often know markets and industries. They have endured or witnessed crises, client bankruptcies, market downturns, or business disruptions. They tap into experience and knowledge to make risk decisions.

Knowledge, judgment, and experience will steer a decision. But risk managers will be influenced by an array of factors. Styles, character, traits, and biases come into play. That's inevitable, since they are human. To make good decisions, they must learn to harness certain habits, biases, or traits and approach the decision in objective ways.

They will exhibit many personality traits, as they work with bankers, traders and colleagues. They are congenial, collaborative, or aloof. They can be autocratic, overconfident, dismissive, argumentative, supportive, contemplative, or pleasing. They can be ponderous, inflexible, introverted or hierarchal. They are one way with business units, another way with senior managers and yet another with others. These styles might affect decision-making.

Risk managers will show a general propensity for risk in transaction decisions, portfolio management or client management. Some are:

1. Risk-averse, confident that the worst will occur and not sure risks can be reduced or hedged. A few are risk-averse, not because of a fear of risk, but because of a personal desire to exert authority or to ensure job security.
2. Risk-taking, confident risks will not exceed certain levels and can be managed, hedged, reassigned or sold off. A few might be risk-taking, not because risks are prudent, but because of a trait to show confidence and fearlessness.
3. Risk-neutral, confident risks occur within a manageable range and are influenced by market conditions, situations or trends. Some waver. Sometimes they are risk-averse; other times, risk-tolerant.

A propensity for risk is influenced by personality traits. But it is also be influenced by other personal factors:

1. Financial objectives
2. Professional objectives
3. Incentive compensation
4. Employment stability
5. Use of appointed authority

If compensation is based on minimising risk losses, the most risk-taking risk manager may become more risk-averse. If authority is important to the risk manager, then a risk-neutral risk manager could become more risk-taking or risk-averse to demonstrate it.

Experienced risk managers, therefore, should understand personal objectives, styles, and propensities and manage these tendencies to focus on the best decision. The combative, power-hungry risk manager, for example, who holds a grudge against a business leader must learn to suppress these tendencies when it's time to make the right decision.

Business factors influence decisions.

Bank units aggressively take steps to win business, increase revenues and improve results. Businesses will have short- and long-term goals, profitability benchmarks and ROE hurdles. Bank units will seek to improve reputations in the industry or climb higher up league tables. Risk managers know business units must generate profits; they know businesses seek greater market presence. But it's not always easy for them to isolate themselves from these pursuits to make proper decisions.

Client-related biases influence decisions.

Many important clients have long-time relationships with banks. Bankers may have special, entrenched relationships with some and may explain risks in irrational ways to approve transactions with familiar (or favourite) clients.

Risk managers may, too, encounter client-related "threats" when they review transaction terms: A top-tier client threatens to flee to a competitor if a deal under review is rejected. Risk decision-makers are familiar with this scenario, but must learn to make decisions without regard to occasional threats.

Past experiences become influences.

Risk managers who sloughed through the recent financial crisis or past crises

CREDIT-RISK MANAGEMENT – MAKING THE “RIGHT” DECISION

(Asia, Latin America, Long-Term Capital, stock-market crashes, technology bubbles, sovereign debt, real estate, Enron, and Worldcom) try to avoid the next one. The memory of an event or a lingering stench of work-outs, restructurings, and bankruptcies will influence the next decision.

Past experiences shouldn't be minimised. They offer lessons and help frame future decisions. They could paralyze decision-making if risk managers fear a repeat episode. Past experiences might lead to avoidance of risks: Avoid risks to avoid work-outs and bankruptcies. Avoid risks to avert negative publicity or public criticism. Or avoid risk to minimise the probability of write-offs, business shrinkage, or reputation damage.

But others might treat past experiences as one-time occurrences and dismiss the likelihood of another crisis soon.

Regulatory oversight influences decisions. Risk managers, before a decision, will gauge how regulators will assess or second-guess the decision later. With pending regulatory reform, they might assess how regulators will opine in periods to come and could make decisions in anticipation of regulatory changes.

Banks' risk cultures influence decisions. Culture includes governance, organization, corporate structure, and the tone CEOs trickle to those below. The organisation will have expectations for the role of risk management. Management structure might limit the voice of risk decisions or permit it to have substantial weight. A structure that limits the enforcement of a risk decision might result in unclear, casual decisions.

Experienced risk managers juggle these influences daily. They understand personal traits, objectives and biases. So how do they control these factors, isolate them when necessary, or tap them when it's appropriate to make the right decision.

The “Right” Decision

There is no fool-proof process to approve risks that will result in no losses. There will, however, be attempts to make the “right” decision to minimise losses, manage portfolio exposures, and stay within the lines set by risk policies.

But what is a “right” decision? The right decision is more an unbiased, fair process, not always the end result. It may entail:

1. Prudent, careful judgment of deals, transactions, and clients
2. Fair, objective approaches to reach a decision
3. Understanding and control of personal biases, traits and business influences
4. Assessment of risks vs. rewards (business gains)
5. Unbiased perception of worst-case scenarios or what can go wrong
6. Strict adherence to risk policies, guidelines, and portfolio objectives
7. Thorough understanding of business-unit goals
8. Adequate input from informed, knowledgeable people
9. Sufficient and detailed analysis and research from experts
10. Understanding of compliance, legal, and regulatory parameters
11. Approvals with low probability of loss
12. An awareness of contingencies and options to reduce or hedge risk of loss

The “right” decision may be “yes,” “no,” or a plan, guidance and instructions on how to manage a risk scenario.

“Bad” Decisions

Bad decisions, or wrong decisions, are made periodically. They led to approval of mortgage-related risks, the on-boarding of clients with bad reputations or bad business models, disastrous derivatives trades, or the approval of a large syndicated loan to an industrial that fell into bankruptcy a year later. They may be characterized by:

1. Inexperience or inadequate knowledge among decision-makers
2. Miscalculation of risks and probability of losses
3. Insufficient analysis, details or information
4. Fatigue, excess workload, and insufficient staff
5. Excess, cosy influence from business units and their goals
6. Lack of understanding of complex, primary risks
7. Inadequate review of worst cases
8. Excess optimism regarding projections and market trends
9. Inability to manage “policy slippage”: loopholes and exceptions

Making the “Right Decision”

After they understand biases and influences and appreciate history, experience and knowledge, how can risk managers ensure they make that “right” decision?

1. Set the tone beforehand. Provide guidance and parameters for how decisions will be made and what risks, exposures and clients will be tolerable.
2. Know who the stakeholders are. Who will be affected?
3. Understand and limit personal biases and influences.
4. Deliver the message clearly, succinctly and with authority. Be confident, independent, rational, logical and persuasive. But be prompt and responsive.
5. Make sure the decision is consistent with policies, guidelines and limits. If the decision is an exception to policy, explain why.
6. Employ lessons of past crises, events and experiences.
7. Use tools, metrics, benchmarks and statistics, but allow them to advise, but not make the decision.
8. Use unbiased approaches to get closer to the decision. An approach can be based on:
 - a. Assessment of risk-returns
 - b. Impact on total client/counterparty risks
 - c. Impact on portfolio risks
 - d. Review of scenarios, conflicts and outcomes
 - e. Review of impact on stakeholders
 - f. Review of long-term impact of the decision
9. Allow free-flowing input from experts, analysts, and those knowledgeable about products, deals, clients, and industries.
10. Use mature judgment. Be accountable.

All the familiar risk scenarios (deals, trades, transactions, clients and counterparties) will continue. There will always be an urgent demand for decisions to facilitate getting deals done, trades booked, funds wired, or clients on-board. If biases can be controlled, influences understood, and the impact on stakeholders properly measured, then the “right” decision can be made more often than not.

*Tracy Williams can be reached via
JK@riskrewardlimited.com*

SIGNIFICANTLY ENHANCING RISK MANAGEMENT WITHIN THE INSURANCE INDUSTRY

by Dennis Cox, Chief Executive, Risk Reward Limited

The Bank of England and the Financial Services Authority published the approach of the new Prudential Regulation Authority in June 2011. It is clear that the new regulators will be building on Solvency II regulation and implementing a new risk-based regime for regulation. This will provide insurance companies with a series of challenges and actions that will need to be actioned.

The new regime is intended to be increasingly focused on the ability of the business model of the insurance company to be sustainable and to meet the expectations of policy holders. This puts increasing demands on the Board, senior management, management information, risk management, systems and controls operated by the Insurance Company. Given that the revised rules are due to be fully implemented and all firms are expected to be fully compliant by 31 December 2012 the expectations of the regulators are that firms will be commencing projects to meet these demands with urgency.

There are perhaps eight major areas where a firm will need to consider how it will meet these obligations, which are as follows:

- 1 Risk Management**
- 2 Quality of Senior Management**
- 3 Management Information**
- 4 Stress Testing and Scenario Modelling**
- 5 Asset and Liability Management**
- 6 Business Model Review**
- 7 Non-executive Directors**
- 8 Model Review**

Let us consider each of these areas briefly:



1. Risk Management

The new Prudential Regulation Authority is clearly putting increased emphasis on risk management which includes the role of internal audit and internal actuaries. They will be seeking to establish that the risk management function and structure implemented within the insurance company is fit for purpose and able to provide the level of support that senior management require.

Historically many insurance companies have not implemented integrated enterprise risk management. It is clear that this will need to be enhanced to meet the demands of these revised requirements. While we do expect additional guidance to be forthcoming during both 2011 and 2012 it is important for a review to be conducted as to the adequacy of the risk management framework.

Working from the key building blocks of an enterprise risk management (ERM) framework firms will require a gap analysis to be conducted to identify where and how existing risk management systems and controls fail to achieve international best practice and the expectations of the Prudential Regulation Authority. It is likely that internal resources will be unsuitable for such work due to their knowledge of risk management in the single firm alone. External consultants are well placed to undertake such work

SIGNIFICANTLY ENHANCING RISK MANAGEMENT WITHIN THE INSURANCE INDUSTRY

and a firm that is independent, experienced and unregulated can provide the level of assurance required whilst maintaining a level of confidence that would be expected. The decision to use qualified consultants is often the first positive sign to the regulator that the firm is taking their compliance seriously.

The typical output from such an exercise is a gap analysis report supported by a suggested action plan.

2. Senior Management Review

One of the lessons that the Financial Services Authority learnt from the recent financial crisis is that the executive management of a firm need to possess a broad range of skills and also need to be able to interpret the information provided to them. The Prudential Regulatory Authority intends to move forward from the previous ARROW regime implemented by the Financial Services Authority to a more sophisticated structure that considers the ability of the firm to meet the reasonable expectations of policyholders.

Executive senior management need to look at themselves critically to assess the extent to which they are able to achieve the new governance objectives set by the regulator. This will need to consider the structure of reporting within the firm together with the committee structure and terms of reference. Consideration then needs to be given to the skills required to achieve the objectives set by the terms of reference and identify any changes required. This could result in additional training requirements or the appointment of additional resources to supplement those currently in place.

Such reviews can achieve a better understanding of the governance framework together with a clear statement of compliance with regulatory expectations.

3. Management Information Review

Another task that needs to be conducted is a review of management information. There is little point in having a committee structure that is robust if the information that is required to meet the expectations of senior management and the regulator is not available. A management information review will work initially from the both the Terms of Reference of the committee structure and the expectations of the regulators to identify any weaknesses or gaps in reporting.

It will also consider the reliance and timeliness of reporting to enable the committees to achieve their objectives. With our experience of finance, accounting and insurance reporting we are well positioned to provide specific additional advice in this area.

4. Stress Testing and Scenario Modelling

The new regulator has highlighted that they will be placing a high level of confidence on the stress testing and scenario modelling conducted by the institution. Stress testing refers to those extreme events that result from the continuation of a relationship between variables to a plausible extreme. Scenario modelling refers to cases where the event does not result from the continuation of a trend but effectively occurs as a one off item.

The Board will need to both understand and approve the stress and scenario testing regimes. They will need to be complete, credible and lead to actions that would be considered appropriate by the regulator. In designing such enterprise wide stress events the complete spectrum of

potential stress and scenarios would need to be considered with the most appropriate ones being evaluated and reported. This is a major issue for many firms requiring knowledge of key staff members and access to reliable and complete information. A review is required in this area to ensure that the programme of stress testing is credible and meets the reasonable expectations of the regulator.

5. Asset and Liability Management

Unlike a bank, insurance companies do not tend to suffer from the liquidity problems that are prevalent in banking. While banks use short term funding to support long term lending, the key issue in insurance is the balance of the insurance premium against the long tail liabilities.

The actuaries of an insurance company will be assessing whether the liabilities have been properly assessed and mitigated. They will need to ensure that such liabilities will not increase significantly under a variety of plausible scenarios which might then undermine the business model. Risk mitigation will need to be assessed to see that it will continue to be effective under such stress conditions.

This is at the heart of the business of insurance and is generally the area which is best managed within the risk management functions of an insurer. Ensuring that there is adequate documentation to enable this to be demonstrated to the regulator and senior management will involve a review being carried out.

6. Business Model Review

The regulator will be assessing the robustness of the business model of the individual firm to anticipated stress events. Such a review should be conducted by the firm itself prior to the regulators assessing such matters. While the regulators will not be approving products they will be seeking to appreciate the impact of the business conducted on the ability of the firm to survive plausible events. This will of course lead to the capital assessment to be conducted by the regulator.

This level of change will make it appropriate for a firm to consider conducting a complete review of its business model to ensure that the operations proposed to be conducted remain adequately profitable under the regulatory regimes to be considered.

7. Non-Executive Directorships

The Prudential Regulation Authority has raised expectations on non-executive directors particularly those sitting on the Risk Management Committee and the Audit Committee. Such attendees will need to be in a position to justify to the regulator that they have sufficient ability to effectively review and investigate the work conducted by executive management.



SIGNIFICANTLY ENHANCING RISK MANAGEMENT WITHIN THE INSURANCE INDUSTRY



The skills of such people will need to be considered to ensure that they have the ability in principle to achieve these objectives. In many cases firms will need to appoint additional non-executive directors that possess such skills as will be required. These will typically include knowledge of:

- Risk management
- The business conducted
- Audit
- Finance
- Regulation

Firms that do not have access to such skills at present will likely require new people. These requirements will be demanding. The meet them effectively it may be best for a non-executive director to be appointed that has the support of a trusted and proven consultancy firm behind them.

8. Model Review and Validation

The new regulators have identified that inappropriate reliance on models was one of the issues which had been highlighted by the recent financial crisis. Therefore regulators and senior management need to be assured that models are suitable in all areas where they are used.

A complete register of models needs to be developed with each model being reviewed and validated on a regular basis. Documentation needs to be adequate and the model needs to have good predictive ability. This will mean that the assumptions that underpin the model are a complete set of assumptions and have been backtested on the population on which the model is being used.

The model validation and assessment needs to be conducted by a team that was not involved with the development of the model. This ensures the necessary level of independence in the assessment that is required both by senior management and the regulator. Risk specialists have the skills necessary to assess such models and ensure that the documentation is sufficiently transparent and understandable.

In Summary

There is not a lot of time to deal with the wide range of actions that need to be taken to meet the expectations of the new regulator given the short timetable which is currently envisaged. Since similar resources are required for all of these projects additional supplementary resources will be required by firms to achieve these requirements. The insurance industry has already experienced the limited expertise available within the UK market for Solvency II projects and costs for independent consultants vary wildly. Chief Executives, Chief Operating Officers, Chief Financial Officers, and recently appointed Chief Risk Officers of insurance firms, (whether former Chief Actuaries or current Chief Actuaries), will continue to be challenged in their search and selection of appropriate risk, governance, regulatory reporting and modelling expertise and skills sets from among the existing recruitment firms and interim management agencies.

Dennis Cox can be reached at DWC@riskrewardlimited.com

Risk Reward Results Worldwide

- **Advisory**
- **Co-sourcing**
- **Executive Training**



RISK REWARD



For more information please contact Lisette Mermod
LM@riskrewardlimited.com telephone +44 (0)20 7638 5558 or +1 917 310 1334

AUDITING SOLVENCY II: ORSAs FOR CORSAs

John Webb, FCCA, is the Director of Solvency II at Risk Reward Ltd. This is the second in a series of articles on the auditing of Solvency II projects for insurers and banks with insurance businesses.

As insurance and reinsurance companies wrestle with the continuously changing expectations and timetable slippages inherent in Solvency II, this is a major challenge for management. Consequently Internal Audit really has to address the growing expectations upon it for performing additional and specific audit testing. This may include some internal audit teams requiring enhanced skills and additional business knowledge.

It is still some time before Solvency II compliance will be required and all of the detailed requirements will be known with certainty, but there is so much for the industry to do in order to be prepared for that moment (or period of time, given that it will be phased in). Much thought needs to be given to the way in which Internal Audit should approach the Solvency II work being undertaken within its organisation. In this article I am setting out our initial thoughts on what is a suggested approach to this exciting challenge.

Classifying High Level Controls

Solvency II is all about risk management and demonstrating that risk management is embedded, addressing the full range of risks faced by insurers, not just underwriting risks, in determining capital. The Own Risk and Solvency Assessment will be predominant and the acid test for all of this will be the 'use test'. To attain a Capital-controlling Own Risk and Solvency Assessment (CORSA) we must demonstrate the Own Risk and Solvency Assessment meets this use test, in all material regards. Their use will ensure it really is ORSAs for CORSAs!

A good place to start an audit testing programme will be to predefine the generic areas for classifying risks at a

high level, then documenting control procedures and specifying the detailed audit tests envisaged at this early stage, for testing these controls. I would start with following high level list: -

1. Risk Management Governance
2. Actuarial and Internal Model Governance
3. Solvency II Project Governance
4. Demonstrating Adequate Financial Resources (Pillar 1)
5. Internal Model
6. Risk Management Systems and the Use Test
7. Own Risk and Solvency Assessment (Pillar 2)
8. Reporting Requirements (Pillar 3)
9. Compliance Monitoring Approach

Risk Management Governance

Taking each of these in turn and thus starting with, Risk Management Governance, this section of the programme will include tests to ensure that: -

- The board is fully involved, including setting objectives, risk management strategy, risk appetite, Solvency II strategy and that there is a training programme.
- There is an Internal Audit function capable of delivering an internal audit service, irrespective of the extent to which it may be out sourced.
- The relationship with the regulators, currently the Financial Services Authority but later to be the Prudential Regulatory Authority, will be controlled and able to demonstrate embedded risk management and strong ORSA, economic capital modelling and internal model application processes.
- A gap analysis to show Solvency II requirements which are not being met by the present ICAS regime

compliance processes for each insurer.

Actuarial and Internal Model Governance

Turning to Actuarial and Internal Model Governance, tests are required to determine whether: -

- There is a strong Actuarial function and it is properly involved (in a well documented manner) with internal model construction and calibration, validation, scenario and stress testing and model output and technical provision integrity.
- Governance of the internal model which includes, board approval, management assessment of economic capital and the Solvency Capital Requirement. This in turn should be supported by expertise in risk and capital management, as well as compliance, finance and actuarial knowledge.
- Outsourcing must be properly controlled and fully documented and approved.
- Insurance liabilities need to be calculated in a manner which ensures they are market consistent and appropriate.

Solvency II Project Governance

Solvency II Project Governance covers the safe delivery of the entire transformation project, which embeds risk management and builds it into the capital adequacy calculations. This will cover the range of change management controls, as well as ensuring that the Solvency II project will ensure that business written and its capital requirements, post implementation, will be properly controlled, documented and reported.

Demonstrating Adequate Financial Resources (Pillar 1)

In order to demonstrate Adequate

AUDITING SOLVENCY II: ORSAS FOR CORSAS

Financial Resources, additional in depth tests will be required, to include those over the: -

- Various approaches to modelling which will calculate the Solvency Capital Requirement and the results of the standard formula, bearing in mind this may range from a fully stochastic capital model to a scenario based approach.
- Proper tiering of capital resources and elements.
- Approval to use internal models to calculate the regulatory capital requirements, itself sourced from an approved internal model and properly controlled data flows.
- Properly documented internal modelling, sufficient to justify such things as correlations assumed, aggregation, diversification benefits and the benefits of reinsurance and hedging.
- That assets are properly valued and market consistent.
- That non insurance liabilities are correctly calculated.
- That insurance liabilities are checked, market consistent in their valuation and that best estimates used in the technical provisions are properly supported and documented.
- That capital resources meet the capital requirements, both for basic and ancillary own funds, under Tier 1, 2 and 3 Capital. Such tiers reflect the degree of loss absorbency in the

event of a winding up.

- Minimum Capital Requirements are met at a confidence level of 80-90%, over a one year period.
- Solvency Capital Requirements are met at a confidence level of 99.5%, over a one year period and that monitoring and breach reporting procedures are adequate. Also that contingency plans for remediation are put in place, ahead of time, to an extent that is considered reasonable.

Internal Model

With regard to the Internal model, tests are needed to cover: -

- Statistical quality standards including quality controls approved by the Chief Actuary and Risk Management. Also that strong monitoring processes over data exist.
- Assessment of the data, underlying assumptions and statistical quality for the internal model. This will include data integrity, testing and data monitoring.
- Calibration standards for the internal model, which must be properly documented. The insurance company needs to demonstrate that policy holders and beneficiaries will be given adequate protection.
- Profit and loss attribution needs to be tested to see that the sources of profit and/or loss for major business units can be explained by reference

to the internal model risk categorisation and that the actual profit or loss is to be back tested and compared to predictions, so as to explain profit variations.

- That Internal model documentation is sufficient and thorough and that version control is assured.
- Internal model validation is sound. Confirmation standards are required, so that the internal model is demonstrably used for meeting the requirements of the use test, which in turn is bolstered by proper risk and capital management and the identification of emerging risks.

Risk Management Systems and the Use Test

Risk management systems need to be subject to audit testing to include: -

- That formal governance requirements have been developed and embedded. Crucially this must feed right through to the ORSA, under Pillar 2 and the report to supervisors and to the public, via the Solvency and Financial Conditions Report.
- The key components of the Use Test can be demonstrated including use of the internal model for key decisions across business units.
- In demonstrating that the use test is embedded, the internal model should be used for decisions to do with reinsurance, underwriting, product development, strategy and

AUDITING SOLVENCY II: ORSAS FOR CORSAS

- planning, for example.
- Any third party models and data are tested.
 - That senior management review risk management processes regularly.

Own Risk and Solvency Assessment (Pillar 2)

Now on to the Own Risk and Solvency Assessment, audit testing should also cover: -

- Risk assessment processes and their documentation.
- The assessment of the ORSA process and that it is proportionate to the needs of management.
- That ORSA output is properly disseminated and actioned.

Reporting Requirements (Pillar 3)

Addressing reporting requirements, internal audit need to test that annual solvency reporting is complete and accurate. Also that sensitive information to be privately reported to the Prudential Regulatory Authority is done so securely and that compliance monitoring will be thorough.

Conclusion

In conclusion, internal audit, alongside the other assurance providers has a significant amount of work to do to ensure that the insurance company is in good shape to be able to deliver a phased implementation of Solvency II, commencing 1st January 2013. The auditable entity list for the firm is likely to be extended to address these

important issues. Then internal audit also faces two very clear additional challenges. One is to add to the extensive list above, those additional matters which will be important to each specific company and the second is to reflect future changes to the Solvency II implementation guidance and rules.

There is clearly a knowledge issue that needs to be resolved. That will involve training the business in Solvency 2 issues and also for internal audit to work using the risk based approach to design tests that meet these challenging obligations. The expectation on internal audit are clearly increasing – and worse still the

regulators will often be reviewing the control environment directly subsequent to the review conducted by the internal auditors – clearly increasing internal audit risk!

There is much to do and little time to do it – so the firms that start earliest will have the greatest ability to obtain the resources that they need to ensure that the project is successful from both a business and internal audit perspective.

*John Webb can be contacted at
JGW@riskrewardlimited.com*

**Red Chair™**

a discreet service for people that just need to know... **NOW!**

Tel Leigh Morgan on +44 (0)20 7638 5558 or +1 917 310 1334

WHEN THEY CALL YOU – WHO YOU GONNA CALL?

A risk practitioner's guide to Making Good Credit Risk Management Happen by Mary Phibbs

Mary Phibbs, ACA, a Chartered Accountant, has held Group Chief Credit Officer and other senior credit and risk management positions at ANZ Standard Chartered Bank, KPMG, PWC, National Australia Bank and Commonwealth Bank of Australia and is now Non-Executive Director of Northern Rock (Credit Risk). Mary is passionate about credit and risk management. She is adept at explaining and sharing practical understanding, project management and change management solutions when charged with rolling out a credit risk programme within a bank. Mary contributes this as the first in a series of articles for risk practitioners whose role is to embed sound credit risk governance and practice in their organisations.

You are the Head of Risk or Chief Credit Officer for a medium to large sized Financial Institution and so far you have done a great job. You have put risk and good risk governance high up on the agenda for your organization. From the board down they are aware of the lessons and implications of the credit crisis, of increased regulator intervention and of many new rules. Everyone agrees that sound risk management and governance has to be embedded deep into the organisation's cultural processes and procedures and you are the person for the job.

The Challenge

Congratulations and now you have a challenge: what does all this mean in practice for your organization?

For instance,

- How will you put in place controls around something you haven't defined?
- How will you record risks when you can't afford to upgrade the system?
- How will you get people to adopt what they don't understand?
- How will you explain it to the Board?
- How will you know when you have been successful?

You know that good risk or credit risk management does not happen in isolation of the business. Unfortunately in some organisations, the necessary establishment of risk as an independent function has meant that there is not always the recognition that management of risk occurs across all business activities and is not just the purview of the risk function.

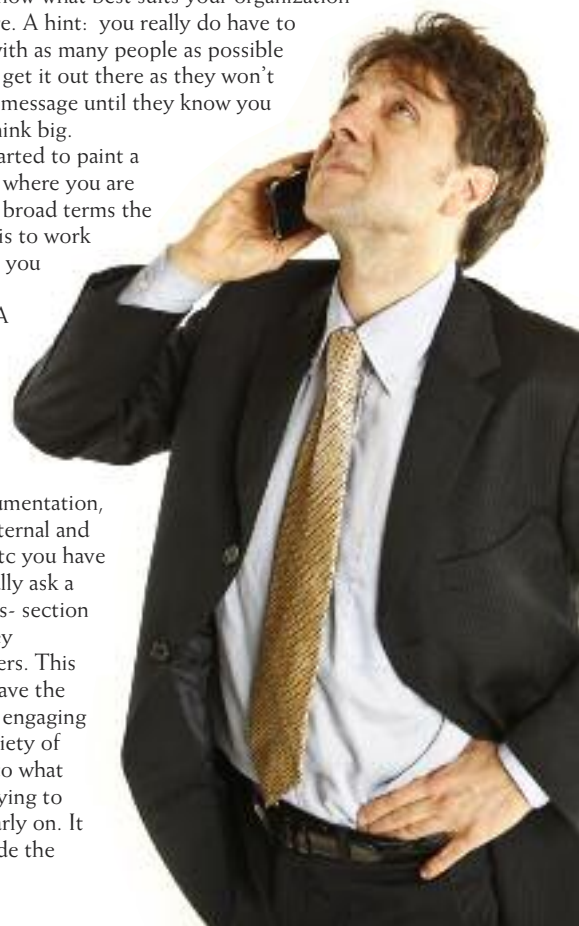
The quality of business being written and the level of losses are not just the responsibility of the credit department. Conversely the credit risk function has a role to play in each stage of the business cycle from planning and product design through to collecting the profits not just in sanctioning transactions. Additionally, from the outset good risk management will not become embedded in the organisation unless you bring people along with you and they will not be open to change (If change is needed) unless they have a compelling set of reasons to do so.

For example, the finer points of the Turner Review may not present such a compelling reason for change to your branch loan officers as it does to the Chairman of the Board. So early on it's a good idea to get a message across that everyone can start relating to.

A suggestion would be to communicate how good risk management will benefit everyone in the organisation by enabling business sustainability and growth through:

- Efficient and effective decision making balancing risk and reward within the context of a well defined business strategy and risk appetite
- Containment of costs and losses as well as increased revenue from exploitation of new business opportunities
- Ensuring that business decisions are made and the business operates in line with a defined framework of values and principles and appropriate standards of risk management and governance are met.

You will have to put this into your own words, of course, as you will know what best suits your organization and culture. A hint: you really do have to connect with as many people as possible when you get it out there as they won't hear your message until they know you care, so think big. Having started to paint a picture of where you are headed in broad terms the next step is to work out where you are at present. A great way to do this apart from looking at what documentation, reports internal and external etc you have is to actually ask a good cross-section of your key stakeholders. This will also have the benefit of engaging a wide variety of people into what you are trying to achieve early on. It may include the



WHEN THEY CALL YOU – WHO YOU GONNA CALL?

board and the regulator but don't forget the more junior members of your team and the sales people and/or relationship managers and loan officers who have direct contact with the customers. These people usually have a really good idea of what is going on your organisation and it's just that so far maybe no one has thought to ask them. Try and think laterally about the type of data that will be helpful, e.g. if staff engagement data is available a low score will give you a fair indication that the risk culture will be wanting. The same goes for customer satisfaction surveys. Further, high turnover in credit risk roles could also indicate issues.

Getting Organised

To more easily pull it together at the end it is best to have some kind of checklist and structure to the questions and areas where you are going to take a closer look. The areas to be considered usually fall under four broad headings:

1. Strategic
2. Structure and framework
3. Process and portfolio
4. People and capabilities

The actual questions and their weight again will depend on your organisation's circumstances, including your regulatory environment. Be clear which elements are mandatory, i.e. prescribed by law and regulation or regulator endorsed reports such as the Walker review in the UK, which questions are more about best practice and which are internal and in line with strategy or the brand value (e.g. a customer charter). Be aware also that although there may not be rules on, say, the appropriateness of data, a regulator may have difficulty in seeing how a firm can have effective risk management as required under its rules without the appropriate data being available.

The answers to the questions will also help you identify potential problem areas early on so you can take action quickly. Also it is a good idea to keep the questions broadly focused initially rather than limiting them to those you believe solely relevant to credit risk. Risk types and business processes are closely linked. You may discover for instance that in order to improve the credit quality of the book the collections process or the documentation process may need

to be addressed and neither process may be the direct responsibility of the credit risk function.

Ready to get started?

The above questions are just an example to get you started. Do bear in mind that you probably do not have many weeks in order to pull a great deal of information together. You will

I Strategic

Mission and objectives

- Is there a mission statement for the business and objectives?
- Is there one for the credit risk function? Are they consistent?

Strategic Plan

- Does your organization have a fully integrated planning process from 1 to 3 years?
- Is credit risk an integral part of the process? Are losses planned for and if so how?
- Is there a clear set of priorities for the business and likewise credit risk and are both consistent?

Risk Appetite

- Is the amount and type of credit risk that the organisation is willing to bear clearly articulated?
- Does the Board approve it?
- Is it well understood?
- Does it inform business decisions?
- Is there a balance between risk and reward at every level of decision making?
- Does it inform portfolio management?
- Does it align with business strategy and expected returns? Are there formalised risk triggers?

Capital management

- Whose job is it to manage?
- Who provides oversight?
- Do you have a Capital Management Committee?
- What data is it based on?
- What is the extent of your stress testing?
- How is capital apportioned?

2 Structure & Framework

Committees

- Is there a separate Risk Committee?
- Do you have a Credit Committee?
- Who sits on them?
- What are their powers?
- Who are they accountable to?
- What is in their charter?
- Who reports to them?
- Who measures committee effectiveness?
- In regards to the charter for a risk committee for example one would expect some or all of the following elements to be present:
 - Members all or mostly independent non executives
 - Minimum meetings per year
 - Overall authority to determine risk framework

- Powers to delegate
- Establishes risk appetite and recommends to the board
- Recommends changes to the board on risk strategy and policy
- Overviews risk control and assurance framework
- Monitors risk exposure and profile against risk appetite
- Monitors and reviews risk exposures, issues and risk reporting

Structure

- Is the risk function independent?
- Who does the CRO and CCO report to? the CFO? the Risk Committee? The CEO?
- Who determines the remuneration of the CRO and the CCO and the

rest of the risk team? (For example, if the business controls this then one might have to question the ability of the function to be truly independent).

- Do you have an internal audit function?
- Who performs risk assurance?
- Is the credit risk function and process audited?

Policies

- Is there a full suite of policies covering all aspects of the credit risk framework (such as delegations, exposures, assessment criteria, loan to value criteria, collateral, write offs etc)?
- Who monitors and reports that these have been adhered to?

WHEN THEY CALL YOU – WHO YOU GONNA CALL?

3 Process and Portfolio

Approvals & Process

- Is the credit approvals process well articulated are responsibilities and accountabilities well defined and aligned?
- Are approval authorities based on actual risk exposure?
- How is this measured and monitored?
- Is there a risk based approach?
- Are approval authorities attached to roles or the capabilities of the actual people in them?
- Is there a standard applications form? a standard credit submission form?
- What are the minimum criteria for approval?
- Who determines pricing?
- Does risk have a say in the return required for the risk being undertaken? In product design? In due diligence?
- Who monitors that loan covenants have been adhered to?
- Who approves and monitors overrides and exceptions?

Models

- What is the extent of credit model usage in your organisation?
- Who builds and monitors their performance and are these functions separate?
- Does the business have any role in their oversight?
- What data do they use? Is it adequate?

Data

- Is the credit data sufficient to allow for estimation of default probability over a cycle?
- Is it detailed enough to allow for proper tracking of underlying drivers of risk in the credit portfolio?
- Can you aggregate all exposure types to each obligor, each industry type etc?
- What information gets reported to management and the board, who compiles it?

- Who analyses it/ who maintains it?
- Is it independently maintained, reconciled and audited?

Systems

- What exposure management and risk reporting systems do you have in place?
- Are they the same systems you use for financial reporting and if not can you reconcile between the two and who performs the reconciliation?
- Are your systems appropriate for the level of data you have available and for how your organisation operates and requires information?
- If you rely on spreadsheets, which may be more appropriate to the size of your organisation, who builds and maintains and monitors them?
- Who approves system and spreadsheet changes?

4 People and Capabilities

Increasingly there is the expectation from regulators that it is the firm's responsibility to ensure that all persons in control functions and in significant influence functions are fit and proper for the role. Further changes are expected to tighten the Approved Persons –Significant Influence functions regime in the UK, for example, with many other jurisdictions likely to follow suit.

The implications for the required capabilities of individuals in the credit risk function and those overseeing business writing are obvious. Areas to be addressed in any assessment would include role clarity, understanding of credit principles and practice in risk and the business, accountability for the same, extent of ongoing training in

credit Basel and regulatory requirements, analytical capabilities, understanding of credit principles, requirements etc in all oversight functions including board and business committees.

The regulators have also expressed a strong interest in remuneration policies particularly in regards to bonuses. However, at a less visible level it is apparent that there is a growing interest in remuneration in general and how risk management functions particularly in credit sanctioning are being treated. An imbalance between those with significant influence on the risk: return equation where it may lead to a greater incentive to write the business rather than to its quality is likely to draw critical attention.

just have to gather what you can in the time available and then like any good credit risk professional exercise judgement.

Let's summarise. At the start of your journey to embed good credit risk and governance and practice into your organization it is a good idea to have a general idea of where you would like to get to and then to take stock .

Once this is achieved you can begin to formulate a plan of what needs to be done and when and what resources will be needed.

The approach of looking at documentation and talking to as many stakeholders as you can have the advantage of helping to enjoin everyone to the cause. You will have an understanding of their needs and be able to get greater understanding and commitment from them as to what in your professional judgement needs to be done. True lasting change

will not be sustained by forcing it on people; you will have to win hearts and minds by being open, inclusive and accepting feedback.

Don't forget

You may not get the perfect information. You will need to use judgement and make recommendations as to ideal conditions, timing and agreements. **The questions will be the framework of what is ideal.** You will be able to match that against the current situation. From this will emerge priorities for action. Keep everyone informed of the outcome and your recommendations. You will need their support and ownership.

In coming articles we will discuss some of the key areas above in more depth. Taking Risk Appetite, for example, we will look at the practicalities of quantifying it for your organization embedding it into decision making, reporting and explaining it to all your stakeholders so that it has relevance to them.

FUTURE OF GLOBAL FINANCE

In this article Dennis Cox, CEO, Risk Reward Ltd, addresses the problems of Europe, the case for European integration, the demise of the Euro, and the ultimate impact of Basel III on the global banking sector.

The financial crisis continues to rumble on. Now a variety of soothsayers and journalists are making their views known. Each sees a different problem yet each problem is essentially the same. Each provides a different solution yet each solution is also essentially the same. Regardless of what you consider to be the cause of the crisis or when it started, the current crisis clearly demonstrates a couple of obvious statements. These are that

- **Governments have been profligate for far too long**
- **Governments have spent rather than invested for growth**

The basic problem is that when you give people the keys to the cookie jar they are tempted to open it and eat the contents. Governments in a variety of countries have seen that it is relatively easy to borrow money and that if they fix the local rules in favour of government debt then this becomes even easier to achieve.

As funding becomes fatter with borrowing governments could avoid taking any action that might be considered to be unpopular such as increasing taxation or reducing expenditure. The consequence of this has been ballooning government expenditure. The unbalancing of the global economy and perceived security of state employment resulted in some of the brightest and the best going into the state sector. There is a real problem here. Since the state sector rarely adds value to society these resources are lost to the income generative segment of the economy.

The Problems of Europe

It is now widely recognised that the Euro was always at best a poorly designed political idea. The economics of the Euro were always weak and the benefits overstated. A currency that is effective in benign market conditions but is found wanting in times of stress

is essentially a disaster waiting to happen. It seems to be a car crash in slow motion which we are now all watching with concern. Without full and complete financial and fiscal integration you cannot operate a single currency – it just will not work. As you try to stimulate the weakest you essentially continue to stimulate the strongest. So as a solution is found for Greece so you stimulate Germany, just as the US stimulation package effectively stimulated Asian economies.

Given that the euro was always a political fix with a variety of countries trying to show that their economies were aligned when they patently were not it will need a political solution. That means that there must either be only one Central Bank and one system of taxation for the entire Euro zone or the end of the currency. Nothing else will really work long term.

The Case for Euro Integration

The Euro zone consists of economies that are either industrial based (eg Germany) or agriculturally based (eg Greece) while others are a combination of the two (eg Ireland). That these economies can achieve correlation is in reality a mirage. The logic of integration is that since countries clearly cannot function apart with a single currency then they should function together. One system and one government leading to unified taxation and stimulus. The political ideology of integration takes little interest in the consequences of this action. Based on post Second World War ideologies and driven by politicians and bureaucrats the impact will be severe.

For perhaps a generation or more southern Europe will continue to decline. Younger vibrant populations will migrate to the north putting additional pressures on southern services. Civil unrest and poverty will be the unacceptable result. The integrationists judge that this is a price worth paying. With regret the author disagrees.

There being no rational reason for integration does not mean it will not happen. A political ideology can overcome any barrier even common sense.

The End of the Euro?

Can the Eurozone cope with a default of a sovereign? The answer to that question is a guarded yes. It will weaken the European currency and further defaults are likely to follow the initial default. However the currency can survive. Perhaps the right question is whether it is good for all countries and whether any country would have the political nerve to leave. It has been noted before that it is easier for the



FUTURE OF GLOBAL FINANCE

strongest country to leave the currency but since every turn within the currency has the effect of stimulating the strongest there is no reason why they should want to leave.

It is also extremely unlikely that a country will be thrown out of the Euro so the only way out would be to liquidate the whole thing or for a weak country to leave. Considering the first option a political idea is hard to kill politically so that option is unlikely.

The second option is also rather unlikely due to the pressure that is certain to be put on the minor country to remain. Without a clear and certain mandate from its electorate and brave politicians it will not happen. However if it did, what would be the impact?

If a weak country leaves the Euro the Euro strengthens. This hurts the strongest exporters in Euro zone (eg Germany) which loses competitiveness. This could stimulate the weaker country now relying on its own currency. The question is who would provide the funding? Looking at the rate that countries such as Greece are required to pay currently for their debt, a minor increase on this would be a small price to pay for being able to reduce its currency. This would increase Greek competitiveness and stimulate its economy at the expense of the remaining Euro zone countries.

So there is a compelling reason for Greece to leave the Euro zone, although once again it is doubtful this would be allowed to happen.

So what will actually happen?

Our expectation is that there will be further integration in Europe and that all countries will stay in the Euro zone. The consequence of this is that there will be a migration of talent from the southern European states to the north resulting in increasing disparities in living standards.

Europe does not stand alone in its weakness. The USA and Japan are but two major players with similarly intractable issues to deal with. The difficulty of dealing with ballooning deficits haunts the US and the press openly identifies the possibility of default. With the following comment the author recognises its significance. There is no way that the US is actually

AAA under any rational basis. On a day that both the Wall Street Journal and the Financial Times refer to the possibility of default if the US fails to increase its debt ceiling then a foreseeable default event can occur. That is not AAA nor is it the only challenge the US faces.

Perhaps a more appropriate rating would be A+ which of course is investment grade but identifies that there are foreseeable events that could impact the ability of the country to meet its obligations. The US cannot continue to use the world's resources without adding value. Investing for growth and value is one thing but just spending it is another matter entirely. The US economy needs to get back into balance and quick to enable the debt markets to return to normality. It is the continued overhang of deficits which means that debt markets continue to be distorted.

We need to create a financial environment in which companies that create wealth and employment are able to flourish. The current position whereby lending to government becomes the mainstay of financial innovation has to come to an end. Further it is small company growth that needs to be encouraged. If every small company hired one more person then unemployment would reduce and wealth increase. However the current international policies have the opposite effect and small companies unable to raise capital wither and die.

The Impact of Basel III

We now have the major discussion about identifying those institutions that are too large to fail and then to impose additional capital requirements on them. These are of course the same institutions that have managed to survive the crisis and they are not to be penalised because they have been successful.

This will all change and quite quickly. The argument is expected to move from "too big to fail" to "too small to succeed". If you move the playing field against the larger firms what normally happens is that other participants move into their space. The fallacy of current thinking really relates to what it is to be a bank. Remember that it is deposit taking which makes a bank a bank. Other firms can lend money, undertake funds transmission or treasury services. You do not need a banking license to undertake these profitable and risk-weighted, asset-heavy activities.

The consequence is obvious. The profitable areas of business will separate from the deposit taking activities and leave the banking industry. Fiduciary responsibility will be maintained for the declining band of banks holding on to their historic banking models while newer, younger non-banks take advantage of the ill-designed regulation to undercut profitable business.

However the next crisis (which will be different to the last crisis) will hit smaller firms hard and will highlight that capital is not the best way to regulate the financial services industry. Better ideas from leading bodies are needed, something that is not even being allowed to be discussed at present. Global coordination, reduced government deficits, reduced capital requirements innovation and growth will all have their time in due course. Let us hope that most of us will be still around to benefit.

DWC@riskrewardlimited.com



RISK

Reward Results



Risk Advisory Service

- Risk Management
- Internal Audit
- Banking & Capital Markets
- Islamic Banking & Finance
- Insurance
- Financial Crime
- Expert Witness

Executive Training

- Accademia Programme
- Bespoke Training
- Accredited Training

Worldwide



RISK REWARD

+44 (0)20 7638 5558

riskrewardlimited.com



RISK REWARD
RISK REWARD RESULTS

60 Moorgate
1st Floor
London EC2R 6EL
United Kingdom

Office hours: London (GMT)
09.00am – 19.00pm Monday – Friday

telephone: +44 (0)20 7638 5558
fax: +44 (0)20 7638 5571
email: info@riskrewardlimited.com
website: www.riskrewardlimited.com

For further information please contact:

Dennis Cox – CEO

telephone: +44 (0)20 7638 5558
email: DWC@riskrewardlimited.com

Lisette Mermoud – New York

telephone: 1-917-310-1334
email: LM@riskrewardlimited.com

Joanna Kraska – Public Relations

telephone: +44 (0)20 7638 5558
email: JK@riskrewardlimited.com