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PwC actuarial newsletter summer 2011

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Introduction

Welcome to the summer 2011 edition of PwC's actuarial newsletter.

Summer is well and truly here. As the days get shorter, I hope you will have time over summer to take a well deserved break and refresh yourselves for the year ahead.

In this newsletter, we look at issues that are affecting the actuarial community now. The topics covered in this edition are:

- Capital optimisation in the Solvency II world
- Results of our global Insurance Banana Skins Survey
- Challenges for model validation
- Getting ready for Solvency II at Lloyd's
- Regulatory round-up

Last month saw a proposal by the Council of the European Union to defer the implementation date for Solvency II until January 2014. This is still a working draft, subject to change following further negotiation with the European Commission and European Parliament. It is unlikely the issue of implementation date will be fully resolved until later this year so insurers will need to continue their Solvency II programmes with this added regulatory uncertainly in the backdrop. Our regulatory round up section covers this in more detail as well as a number of pertinent FSA developments in the last quarter.

We highlighted the growth in our actuarial team in the previous edition of the newsletter as we continue to gear up to meet the resourcing challenges in the industry. As an update, we have had 38 new joiners to our Manchester, Bristol, Edinburgh and London offices since January and we will be welcoming another 30 new actuaries and students over the next three months.

We hope you enjoy reading this newsletter. If you have any comments or suggestions, please get in touch with me or a member of our actuarial leadership team.

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Capital optimisation in the Solvency II world

As the industry transitions to a Solvency II world, key opportunities for insurers are emerging.

Optimising capital is a major challenge. As with any business, insurers need to manage their costs and minimising the cost of capital is a significant part of this. Many firms have focussed on reducing their capital requirement under Solvency I, but with a new way of measuring regulatory capital insurers will be forced to consider new ways of optimising their capital or fear an uncompetitive cost base.

Funding

Solvency II introduces new technical criteria for recognising debt capital as funds available to absorb losses. Any new or pre-existing debt structure needs to fulfil these criteria, and while there may be some flexibility under the grandfathering provision, considerable uncertainty remains over the recognition of material amounts of existing debt. Insurers should have strategies in place to manage the transition and make sure any existing debt structures are still recognised.

Other less obvious forms of capital can provide leverage and flexibility. Ancillary funds, letters of credit and guarantees for example, are efficient (fungible) ways of providing capital to subsidiaries and are recognised as loss absorbing under Solvency II, provided they are approved by individual regulators. The latest guidance suggests that up to 50% of the capital requirements could be met by such instruments in particular circumstances, and while it seems unlikely that the full 50% would be achievable, as a means of providing fungible capital to a subsidiary using guarantees has the potential to produce an efficient capital structure for a European group. To execute a new funding structure would require planning and consultation with local regulators but has the potential to substantially improve fungibility, releasing locally trapped capital.

Group Structures

Much focus has been given to group structures, whether the group is a multinational or smaller group with a number of entities in one State. While groups may have considered moving their headquarters outside of the EU, there appears little appetite to take such drastic measures particularly in the context of the current economic and political climate.

Instead, groups are focusing on ensuring optimal group structures within Europe. These could include moving from a range of EU subsidiaries to a central operation with branch structure, thereby maximising tax and regulatory benefits.

In particular UK insurers have, through merger and acquisitions and opportunities in the UK regulatory and tax regimes, become complex groups with a web of internal reinsurance arrangements between

Capital optimisation in the Solvency II world
(continued)

subsidiaries. Tax legislation has developed to eliminate much of the advantage of such arrangements. Solvency II presents the opportunity to simplify structures to make both management and reporting of these entities less complex.

There are efficiencies in both the existing Solvency I and Solvency II regime. There are a number of ways in which companies could seek to restructure, through reinsurance both internal and external, Part VII transfers and through Case V transfers. The route that a company takes to their ultimate group structure needs to be planned to ensure maximum efficiency and to make sure that subsidiaries remain properly capitalised at all points in the process.

Court approval needs to be sought to perform a Part VII and this can be onerous depending on the complexity of the transfer with companies having to demonstrate solvency after the transaction and that policyholders are not adversely affected by any transfer. There are a number of Part VII transfers currently underway and with an estimated time of anywhere between six months and year to complete it is not a simple process.

The rewards can be significant both in terms of capital efficiencies and the reduction in overheads from running multiple legal entities.

Reinsurance

Reinsurance has long been used to manage risk and capital and it will be important to review reinsurance programmes to ensure they're still working under Solvency II. By way of three examples:

1. Non-proportional treaties are poorly represented by the standard formula and it may be more capitally efficient to transfer risk outside the European group using proportional reinsurance.
2. Internal reinsurance arrangements can create high counter-party capital charges, particularly if the reinsuring entity is un-rated. It will be necessary to consider whether retaining an existing internal reinsurance structure is still an efficient use of capital.
3. Higher capital requirements for catastrophe risk will mean the optimal retention – the point where it is better to reinsure the risk than it is to keep it – has moved. Firms will need to look again at the relationship between risk retention and cost of capital to determine a more efficient structure.

Creating or collapsing reinsurance structures rarely has much of an operational impact and has few barriers to implementation while creating tangible capital benefits.

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Insurance Banana Skins

PwC joined forces with the Centre for the Study of Financial Innovation (CSFI) a third time to find out what insurers think are the current risks and future trends that face the industry. With 490 responses from 40 countries Insurance Banana Skins 2011 highlights the challenges ahead at this critical juncture for the insurance industry and how prepared insurers are to handle the risks identified.

A quick review of the top four risks show little change over the past 18 months. The increasing level of regulation insurers' face is cited as the top risk with its corresponding demands through Solvency II on capital and its availability to meet tougher regulatory requirements a close second. These are adding to the pressures on an industry which is being squeezed by low interest rates and intense competition.

1. Regulation (5)
2. Capital (3)
3. Macro-economic trends (4)
4. Investment performance (1)
5. Natural catastrophes (22)
6. Talent (-)
7. Long tail liabilities (10)
8. Corporate governance (17)
9. Distribution channels (16)
10. Interest rates (11)

However, there is also significant change. A strong riser in this year's ranking of 26 risks was the incidence of natural catastrophes, moving up from 22nd in 2009 to 5th, a reaction to the recent disasters in New Zealand and Japan. Interestingly climate change remains low (ranked 20), seemingly viewed as a manageable underwriting risk, and less threatening to the insurance business than other more immediate risks.

Also rising strongly is political risk, a consequence of events in the Arab world, plus growing concerns about the solvency of eurozone countries.

On the other hand, a number of risks have fallen in urgency, among them the use of complex instruments which created difficulties for companies during the financial crisis. The industry's capacity to manage risk is also seen to have improved. Despite a high incidence of floods, bombings and oil spills over the last couple of years, concern about climate change, terrorism and pollution risks remains low.

It is encouraging that talent is now being more widely recognised as an issue too. Leading insurers have been focusing on this and now it's clear that the industry as a whole has woken up to the very real need to nurture its talent and recruit from outside. The issue is particularly acute in Europe as the flood of new regulation has swallowed up key talent and highlighted the industry's severe skills shortage.

David Law, global insurance leader at PwC, said:

"Insurers' attention has clearly changed with much more focus on how to deal with the increasing regulation they face. This is potentially distracting key resources and talent away from opportunities to grow their business. To gain a competitive advantage, insurers need to move the regulatory burden away from a box-ticking exercise to something that is embedded in the business and used to manage the changing risk profile. All this is set against a challenging backdrop of increased natural catastrophes, low interest rates and uncertain world economy."

At PwC we believe that the opportunities for nimble and farsighted firms outweigh the challenges – the way that insurers deal with the risks set out in this report will be a crucial competitive differentiator.

Download Insurance Banana Skins 2011

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Model validation: a view from the edge

Validation is one of the most challenging topics facing our profession today. An effective validation framework is important for successful model approval and to make sure that there is sufficient, robust challenge of the results. How do you find a practical route through these requirements?

Validation?

At the core of Solvency II is the requirement to test the internal model's approach and key assumptions against the real world. These include:

- sensitivity testing to identify material assumptions,
- stress and scenario testing,
- back testing assumptions against experience,
- benchmarking assumptions against industry data or the standard formula assumptions,
- business and risk management review.

Validation tools will vary depending on the materiality and complexity of the different components of the model. A structured validation framework is required to ensure that the validation effort is sufficient without "gold plating" the tasks necessary to gain confidence on the internal model.

A Structured Approach

Another key requirement is demonstrating compliance with all of the tests and standards for model approval (IMAP). A structured approach is extremely valuable in this respect. This includes creating a model validation framework, consisting of:

- model validation scope,
- validation standards,
- validation plans, including test and tools
- review reasonableness of the methodology for calculating each risk in the internal model.

Building a comprehensive validation framework also helps you to demonstrate an appropriate level of technical review in each risk area.

Validation Scope

To ensure a full validation of the internal model, the scope of the validation should be clear. It should consider:

- effective governance framework over model data, systems, operation, design, parameterisation and use,
- technical review of model specification, parameterisation and results – for all risk categories and aggregation,
- testing compliance with IMAP requirements.

It should specifically consider how extensive the validation should be over underlying models or business processes, for example best estimate liability models or pricing models. The decision might depend on the interaction between the internal model and base liability model and the controls in place to ensure consistency between the models.

For completeness, we recommend that you consider flow diagrams of the full model. This will help to make sure that the full model and all of its components are mapped. It will also help to drive the final validation plans, for example it will determine areas where controls versus substantive testing are required.

Proportionality

The main purpose of validation is to make sure that the Solvency Capital Requirement (SCR) is not materially mis-stated. We have found it effective to focus validation work on consistency with the business plan, and key drivers of risk at the 99.5th confidence interval. We see non-life organisations focussing their efforts on validation of catastrophe and reserve risk, and life organisations focussing on the valuation of expenses, lapse and market risks. Both life and non-life organisations are gearing their efforts towards validation of the overall modelling approach and SCR result through stress and scenario testing, reverse stress testing, profit and loss attribution, and analysis of change.

Where possible it makes good sense to include in your scope some validation at lower confidence levels. This is particularly true when lower confidence levels are being used to drive management metrics, for example 'Earnings-at-Risk' for the first time. Performing some validation on the full profit and loss curve helps you to meet the implicit requirements of the use test and statistical quality requirements.

Model validation: a view from the edge (continued)

Validation Standards

Validation standards are a key steering document, linking the Solvency II requirements and your validation policy with your underlying validation activities. Developing validation plans based on the underlying regulation is cumbersome and does not help in understanding your modelling approach. The validation standards should be designed to:

- map against the underlying regulation,
- map against the underlying process.

The underlying processes should capture the full scope of the internal model, including model design, model output, calculation kernel and parameterisation.

Independence?

There has been a lot of discussion on how much independent validation is sufficient. It is important to remember that independence for the purposes of Solvency II model validation refers to a separate function to the team designing and building the internal model. Independent functions may be internal or external to the firm. Larger organisations will often have independent actuaries with sufficient experience and expertise to challenge the model design and parameterisation. Smaller firms may find they need to rely on external providers in this area; particularly in areas such as aggregation / dependencies or catastrophe modelling, where they do not have experts in the business to challenge the modelling team.

We also see independent review by senior management, for example the Chief Risk Officer or Chief Underwriting Officer, of key risk assumptions as valuable components of your validation framework.

What Next?

Resources are tight, and the industry faces a very challenging set of deadlines. It is vitally important not to delay progress on your validation workstream. Success in IMAP depends on being able to articulate how you have met the requirements – your validation report is key to making this happen.

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Solvency II at Lloyd's: getting 2011 right

The Lloyd's market is now well into the 2011 dry run process. While it is clear to the market that there is a lot to do, the requirements are often unclear. This, coupled with the threat of sanctions, is leading to an increasing sense of frustration in the market, and in many areas, making progress harder than it ought to be.

Lloyd's will be applying for the approval of the Lloyd's Internal Model (LIM) in Q1 2012. As part of this application, they must demonstrate that the "Association of Underwriters known as Lloyd's" meets Solvency II standards in its entirety. This involves demonstrating that the Solvency II requirements are met not only by the Corporation, but also by each of the Managing Agents. Given that LIM approval rests on the market, Lloyd's have made clear they will not tolerate any agent jeopardising this overall aim.

Working with Lloyd's and numerous Managing Agents, we have identified common themes behind a successful dry run. We share the key themes which should help Managing Agents more efficiently focus their efforts and achieve a better outcome for the significant investment they are making.

Solvency II at Lloyd's: getting 2011 right (continued)

Offer your own solution: Much of Solvency II is not a tick box exercise; as such it is not possible for Lloyd's to provide a comprehensive list of things that must be completed by every Agent to achieve compliance. In all areas, Agents who are finding the process easiest are those who have understood the requirements and tailored a pragmatic approach that fits their business model.

Understand the effort required for deliverables: The best placed Agents have considered in detail what the key milestones are this year and have planned wisely to make sure that the most important ones get the right level of attention soon enough.

Preparation of the validation report that Lloyd's require will require dedicated effort from Agents. There is a need to discuss this internally and set up a process that will give Boards sufficient comfort to sign off on the internal model. Where external support is required, early engagement is advisable.

Similarly, those that are best placed will benefit greatly from their early preparations for the ORSA submission required at the tail-end of 2011.

Focus on evidence: Solvency II requires a strong focus on providing evidence, and also on providing a rationale as to why that evidence is appropriate. Evidence templates will form a fundamental part of the way that Lloyd's will demonstrate to the FSA that the market meets SII requirements. It is imperative that Agents invest time in justifying how they have met the requirements with supporting documentation.

Seek and act on feedback: The Lloyd's process for 2011 has deliberately been designed to be iterative and continuous in nature to allow plenty of opportunity for agents to modify their approaches (primarily to evidence provision) over the year. Your account manager should know what is required and why – make sure you use their feedback on your progress to shape your plans.

Prepare for on-site reviews: The first phase of model walkthroughs is now complete. The expectation is for a greater level of challenge to be given in the next phase of their work, where the focus will be on specific approaches that agents have used to validate key components of their models.

The best performing agents have shown a deep understanding of the model and its parameterisation, including being able to explain limitations and to justify why their chosen approach was appropriate. They have clearly built time into their plans to prepare for these walkthroughs and you should too.

Get ready for submissions: A large proportion of deliverables required in 2011 will require a good degree of senior input and a number of these will require board approval. Making sure that you get senior engagement early on, with appropriate training, and effective planning that allows for sufficient review time, should prevent any problems in delivering.

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Regulatory round-up: summer 2011

Solvency II Update

Preparations for the implementation of Solvency II continue, but there are now strong indications in the latest draft of the Omnibus II directive that the full implementation will be delayed until 1 January 2014. Under these proposals, insurers will be able to obtain formal regulatory approval of the relevant elements of the directive (e.g. use of internal models) during the second half of 2013, with the approvals applying from 1 January 2014. Local supervisors will also require insurers to provide an implementation plan, with evidence of progress made towards implementation, by 1 July 2013. The FSA has indicated that, at this stage, it will make no change to its timetable for the Internal Model Approval Process, as set out at its Solvency II conference in April. In the meantime, EIOPA continues work on the draft level 2 delegated acts and is carrying out pre-consultation with certain stakeholders on draft implementing technical standards.

HM Revenue & Customs has issued further information on the taxation of insurance companies following implementation of Solvency II. The key announcement is that life protection policies issued after 1 January 2013 will no longer be included in the I–E calculation, but there are other significant changes which combine to represent the most fundamental reform of the life tax regime for 20 years.

PwC tax newsletter.

Regulatory Reform

The FSA has undergone some internal restructuring in preparation for its separation into two bodies, the Prudential Regulatory Authority (PRA) and the Financial Conduct Authority (FCA), which is expected to take place around the end of next year. It is now operating with two business units – the Prudential Business Unit, led by the current Chief Executive of the FSA, Hector Sants, and the Conduct Business Unit.

The FCA will be responsible for protecting consumers of financial products and is expected to be more proactive in this area than the FSA has been in the past. Regulation in this sphere is likely to move back towards more of a rules-based framework, in contrast to the increasingly principles-based nature of the FSA Handbook. The FCA will also be responsible for the prudential regulation of the majority (by number) of firms within its jurisdiction; the PRA will take this role for only the most important firms, such as those which accept deposits or write insurance contracts.

FSA Risk Outlooks

Mirroring this separation of roles, the FSA has this year published both a Prudential Risk Outlook (PRO) and a Retail Conduct Risk Outlook (RCRO), in place of the normal annual Financial Risk Outlook. The PRO discusses the risks facing financial institutions while the RCRO focuses on risks facing consumers as a result of poor conduct by firms. Both documents consider the general economic environment and the risks it continues to present, despite the significant improvement since the height of the recent financial crisis.

A major risk common to all insurers is the volume and potential effects of regulatory and legislative change, for example the European Court of Justice ruling on gender equality and the forthcoming implementation of Solvency II. For life insurers, these factors add to the current pressures on profitability as they face increasing competition for decreasing consumer demand. For general insurers, key risks include claims inflation and low investment returns, which increase the importance of adequate pricing of risk.

Regulatory round-up: summer 2011 (continued)

As reported last quarter, the FSA continues to express concerns over the adequacy of reserving by general insurers. However, overall the UK insurance sector is reported to be well capitalised.

The risks to consumers highlighted in the RCRO indicate the areas on which the Conduct Business Unit is likely to focus. They include payment protection insurance and strategies adopted by firms in the run-up to, and after, implementation of the Retail Distribution Review.

Other FSA Activity

The FSA continues work on its consumer protection agenda, with further publications on the handling of complaints (CP11/10) and conduct of pensions business as the pensions regime is reformed (PS11/08). The consultation period for CP11/05 on "Protecting with-profits policyholders" closed in late May and we await further developments later in the year.

Exposure drafts and guides to whistleblowing

The Actuarial Profession currently has exposure drafts of three Actuarial Professional Standards out for consultation, all connected to the introduction of TAS-I on 1 October 2011:

- ED 26 addresses general insurance work outside the geographic scope of the TASs and advises on the appropriate balance between local standards, where they exist, and the TASs
- ED 27 sets out the duties and responsibilities of life assurance actuaries carrying out statutory roles; it is intended to bring together the ethical requirements of current guidance notes 39 to 43 before they are withdrawn on 1 October 2011 but, in light of potential changes to these roles under Solvency II, does not introduce any new or changed requirements at this stage
- ED 28 covers communications by actuaries in statutory roles to the FSA under FSMA 2000; it will replace the current guidance note 37 when it is withdrawn on 1 October 2011 and is intended to be more accessible and practical.

In addition, in April, the Actuarial Profession issued two guides to whistleblowing more generally – one for actuaries and another for their employers. This material does not introduce any new requirements on actuaries but is intended to provide advice and guidance about the relevant law, our professional requirements and what to do in the event of having concerns about the conduct of another actuary.

Finally, and not related to the Profession, the Debt Management Office has recently issued a consultation document which aims to inform the Government's consideration of whether to issue CPI-linked gilts. Given last year's move from RPI to CPI for index-linked pensions increases, this is likely to be of great interest to a number of insurers.

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Other news

Solvency II Breakfast Briefings

Since our last newsletter, PwC have hosted two Solvency II breakfast briefings. In May, we looked the model validation framework and how it can be approached most effectively. We also discussed the challenges of resourcing and making internal audit part of 'business as usual' validation. We finished the session by discussing some of the key challenges facing insurers and lessons learned to date, including data, methodology, assumptions, and use of the model.

Capital optimisation was the topic of the Solvency II breakfast briefing that took place in June. The fifth quantitative impact study (QIS5) has demonstrated that capital management structures that are tailored to existing regulation are likely to be less efficient under the new regime. At this breakfast briefing, we discussed the ways in which insurers may respond to this challenge.

Our next Solvency II breakfast briefing is on 21 July, when we will look at IFRS and the impact that regulatory change is having on finance process and systems. If you would like to receive an invitation to our programme of Solvency II breakfast briefings, please get in touch with your PwC contact, or speak to Alpa Patel.

Countdown to Solvency II

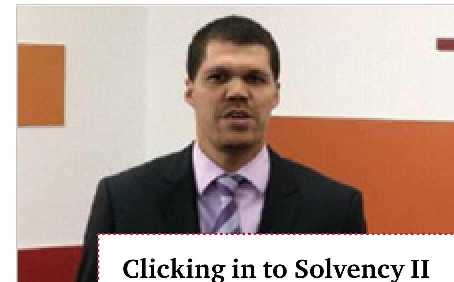
Our latest Solvency II insights are now available for you to watch or download. For other articles, please visit our Solvency II website.

Click picture for more information.

Taking the strain out of technical provisions
Getting to grips with the technical provisions is proving to be one of the toughest and most time-consuming aspects of Solvency II. Are there any ways to make it simpler?

Click picture for more information.

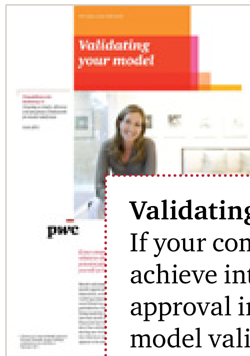
Getting the balance right: Preparing and managing documentation under Solvency II
Your documentation is the public face of your Solvency II programme. It helps you to make a convincing case to your supervisor that your capabilities and approach are fit for purpose. How can you provide the right kind of documentation to demonstrate compliance without swamping your business in needless paperwork?



Click picture for more information.

Clicking in to Solvency II
Alwin Swales, a director in our Solvency II team, looks at how to gear your systems and technology to the tough new regulatory and business demands.

PwC actuarial



Click picture for more information.

Validating your model
If your company wants to achieve internal model approval in the first wave, model validation should be underway. What does model validation involve? What are the potential pitfalls? And how can you get your validation on track without tying yourself up in needless effort?

Click picture for more information.

Delivering your model expectations
The business case for insurers' current investment in financial models is based on leveraging significant operational and commercial advantage post-implementation. How well are they doing?

Many life insurers launched their Solvency II projects with great expectations, aiming to sharpen decision making and competitiveness. However, our research reveals that the business benefits may have to take a back seat to more pressing compliance demands.

While the companies we spoke to are set to spend more than €300 million on systems improvements for Solvency II, the amount of work still needed to meet the initial 2012 deadline has largely dampened expectations, forcing most to concentrate on basic compliance rather than business benefit.

With the failure to comply now seen as a real risk, project managers are insisting that the focus of implementation is narrowed down to the essentials. While there may still be business benefits, the more ambitious objectives will need to wait.

PwC actuarial

PwC actuarial team – who we are
The Actuarial & Insurance Management Solutions (AIMS) practice at PwC has over 400 staff across Europe, the Middle East and Africa, including over 200 in the UK, providing advisory services to the insurance industry, its regulators and other financial services providers.

We are able to call on the expertise of accountants, risk managers, performance improvement consultants and tax advisors across PwC's global network, as well as corporate finance and business recovery specialists. This provides a broad multi-disciplinary perspective to our solutions for our clients.

For more information about PwC's actuarial practice, visit our website at www.pwc.co.uk/actuarial or contact one of our leadership team.

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