A new era for insurance regulation

The current EU approach to prudential supervision of insurance is obsolete. Its successor – dubbed Solvency II – is intended to bring it closer to the economic realities of insurance firms, writes Isaac Alfon, but uncertainties over its impact and implementation remain.

You often find the sequel to a great film somewhat disappointing. Mission Impossible II was never as good as Mission Impossible I. Solvency II, the new prudential framework for insurance supervision in the European Union (EU) that will replace the current Solvency I, may not suffer that fate.

The current Solvency I framework was designed in the 1970s. Since then there have been profound changes affecting insurance such as increased competition, developments in financial markets, technological development and globalisation. As a consequence, Solvency I is seen as being out of date. Firstly, there is a widening gap between internal measures of economic capital and current measures of regulatory capital. Secondly, the regulatory system takes no account of the diversification benefits that arise in the context of insurance firms and in particular across jurisdictions. Thirdly, insurance firms are rightly investing to improve risk management as it makes good business sense, but the regulatory system does not reward that investment. And finally, there appears to be limited evidence of a level playing field between EU insurance groups in particular in respect of the treatment of non-EU operations. There is then a reasonable case for regulatory intervention at the EU level aimed at addressing these shortcomings. This is a good starting point for cost-effective regulation.

This article provides an overview of Solvency II. It describes the process and the timetable. It then sets out the aims of Solvency II and the current challenges. The article concludes with some remarks about its impact.

Process and timetable

The European Commission is making good progress in developing Solvency II. It set out a credible timetable up to the adoption of the Solvency II directive in July 2007. It provided a steer on important policy issues and requested technical advice from the Committee of

Isaac Alfon joined the group risk function of Prudential plc in May 2006 to lead the insurer’s involvement in Solvency II and regulatory change implementation. On secondment to HM Treasury for 18 months, he worked on banking and prudential regulation of insurance. At the UK’s Financial Services Authority, Dr Alfon worked for nine years on the economic impact of proposals covering at different times, methodology for impact assessment, prudential regulation of banks and insurance, markets and retail issues.
European Insurance and Occupational Pension Supervisors (CEIOPS) on a number of important issues. The commission has also asked CEIOPS to undertake a series of quantitative impact studies (QIS) to ascertain the potential impacts of the proposals. QIS2 was completed at the end of July 2006 and provided the first opportunity to assess the likely overall balance-sheet impact.

After the commission’s adoption of proposals for a directive, it goes for approval to the European Parliament and the Council of Ministers. Assuming an implementation date of around 2010, one would expect the directive to be adopted towards the end of 2008.

**Aims and high level policy overview**

There is an emerging consensus that the objectives of Solvency II are deepening the single market in insurance, improving the competitiveness of EU insurance firms, improving the allocation of capital and maintaining consumer protection. The latter is vital for the long-term success of the insurance industry and member states can introduce domestic measures alongside existing Solvency I directives aimed at consumer protection. However, the other objectives can only be pursued in a meaningful way if there is intervention at EU level. Additional considerations are consistency across financial services, in particular banking, and delivering a level playing field across insurance firms in the Union.

Solvency II will be based on the concept of three pillars similar to that used in Basel II, see figure 1. In addition, Solvency II will also address the valuation of liabilities and the definition of eligible capital. And, unlike Basel II, where regulators aimed to achieve an overall level of capital requirements similar to Basel I, we simply do not know whether that will be the case in Solvency II.

At a high level, there is growing clarity about the fundamental principles that would guide Solvency II. It would capture all risks to which institutions are exposed, be based on “market-consistent” principles and take account of group issues.

For Pillar 1, the valuation of liabilities and

**Lamfalussy process**

Solvency II is being developed as a “Lamfalussy Directive”. This means that the directive will set out a framework of high-level principles (“level 1” measures). Implementing measures (“level 2”) would then provide the necessary details. They will be adopted jointly by the commission and member states and could be updated in future as market conditions evolve. Regulatory guidance from CEIOPS (“level 3”) will supplement the implementing measures, but little has been said about this guidance. At the moment, we also know little about the process and timetable for adopting the implementing measures, but discussions will need to start soon after July 2007 to meet the suggested implementation deadline.
assets would be based on market-consistent approaches. For liabilities, this means a best estimate plus a market-value margin (MVM) to insurance firm deteriorates and the SCR is breached, more intense supervisory action will be required at some point. The MCR provides a

**Figure 1: Three pillars of solvency II**

<table>
<thead>
<tr>
<th><strong>Pillar 1</strong></th>
<th><strong>Pillar 2</strong></th>
<th><strong>Pillar 3</strong></th>
</tr>
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<tbody>
<tr>
<td>Balance sheet valuation and minimum capital requirements</td>
<td>Supervisory review process</td>
<td>Market discipline and disclosure</td>
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<tr>
<td>Harmonised standards for the valuation of assets and liabilities, and the calculation of capital requirements</td>
<td>To help ensure institutions have good processes to monitor and manage risks and have adequate capital</td>
<td>Requirements that allow capital adequacy to be compared across institutions</td>
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</table>


reflect the uncertainties in the measurement. The key solvency control level (solvency capital requirement, SCR) would be risk-based and would enable an institution to absorb significant unforeseen losses. This has been defined at a 99.5% confidence interval over a one-year horizon based on a value-at-risk (VaR) measure. There will be a “standardised approach” for calculating the SCR based on factors and/or scenarios. Subject to regulatory approval, institutions will also be allowed to use their own internal models to calculate the SCR.

In addition, there will be another control level between the SCR and the value of the liabilities: the minimum capital requirement (MCR). When the financial position of an harmonised threshold to escalate supervisory action. Figure 2 shows the various components.

For Pillar 2, a structured supervisory review process is envisaged to encourage stronger risk management. Insurance firms would need to assess the risks to which they are exposed, including those that cannot be quantified and stress test assumptions. The regulator will review these assessments and may require improvements to risk management practices or adjust the SCR.

Pillar 3 disclosures are seen as encouraging market discipline and can be a useful alternative to regulatory requirements. The commission is considering disclosures to supervisors and markets together to ensure
Figure 2: Pillar 1 requirements


Consistency. CEIOPS has published recently draft advice on this issue, which recommends that disclosures combine quantitative and qualitative disclosures covering governance, valuations of assets and liabilities and risk and capital management. In addition, Solvency II will improve the treatment of eligible capital by adopting an economic based approach that takes account of the ability to absorb risks from a policyholders’ perspective. In practical terms, it means eligibility criteria similar to those used for banks.
The challenge of delivering

EU insurance and financial markets are far from static and insurers are improving how they manage their risks by measuring economic capital and by taking steps towards holistic approaches to risk management. This sets out the context for the challenges of delivering Solvency II.

Firstly, there are the challenges of designing a cost-effective risk-based approach that will not be out of date soon after its introduction. The list of policy issues is long and here I discuss briefly four current policy challenges.

Diversification and risk transfer

Insurers are in the business of managing risks so diversification and risk transfers are vital. Diversification benefits support the stability of insurers and materialise at different levels – see the box below. Solvency II will take diversification into account, but the extent remains unclear, in particular for groups (levels 3 and 4 in the box below). An SCR that did not reflect group diversification benefits would effectively require more capital than is really needed for the target confidence level (one in 200). This is crucial because diversification benefits within legal entities and between legal entities appear to be of similar sizes, as suggested by a survey of economic capital of members of the Chief Risk Officers (CRO) Forum.

With the development of financial markets, risk transfer is moving beyond the confines of traditional re-insurance. Solvency II should provide an adequate recognition of mechanisms for risk transfer in capital requirements and supervisory review without arbitrarily favouring specific forms of risk transfer.

Market-consistent valuation of assets and liabilities

For liabilities, the measurement of the MVM is vital for delivering a market-consistent

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**Box 1: diversification benefits**

Diversification benefits arise from pooling independent risks in a portfolio. In insurance firms, these benefits can arise in different ways. CRO Forum identifies four levels:

- within a class of risk and a legal entity (level 1);
- across classes of risks and a legal entity (level 2);
- across legal entities in one jurisdiction (level 3);
- across legal entities in different jurisdictions (level 4).

See note 10 for reference.
approach for non-hedgeable risks. The insurance industry is in favour of the approach that uses cost of capital. This is based on the notion that an informed, rational and well-capitalised insurer would need to be remunerated for the cost of holding sufficient capital to be able to run off the business over the full term. So the riskier the insurance liabilities, the higher the MVM and the valuation of the liabilities. This is what one would expect in a risk-based approach and it is consistent with the way insurance companies manage their risks internally. For assets, market consistency means that there should not be artificial impediments that create a wedge between market values and the value of the assets that is allowed for prudential purposes.

Balance between quantitative requirements and risk management

Good risk management allows better management decisions by relating value to risk and it strengthens policyholder protection. It is encouraging to see that EU supervisors have already recognised this in their preparatory work for Solvency II. A review of cases of failures and near failures of insurance firms in the Union concluded that most of the cases were associated with inappropriate risk decisions that were taken in the context of inadequate internal controls. Solvency II can help foster better risk management by providing capital incentives for firms to move from formulaic calculations to internal models. The Pillar 2 supervisory review process should also foster risk management by encouraging firms to assess their risks. The review should focus on requirements for risk management and prudent asset management as opposed to capital add-ons. Transparent application of the supervisory approach and transparent use of supervisory tools will also encourage risk management.

Group issues

Besides the treatment of diversification, the main issue for EU insurance groups is harmonised supervision. This requires a clear allocation of responsibilities between the lead supervisor and the supervisor of legal entities. It should also include a clear and transparent approach to Pillar 2 and model approval based on the idea of joint decision-making by EU supervisors within a fixed period of time, with the decision going to the lead supervisor after that period of time and a flexible and harmonised approach for non-EU subsidiaries.

A recent paper from British authorities discusses the application of solvency requirements to groups. Clearly an SCR is needed at a group level as a threshold for supervisory intervention, but it is not clear that a similar threshold is needed for each
subsidiary. If it was imposed, there would be material tension between the management of a group as an economic entity and the structure of legal entities, which would simply add to the cost of Solvency II with limited benefits. The paper suggests a binding SCR just at group level and solo SCRs that define the extent of group support. Industry has also expressed a similar view in response to a consultation paper from CEIOPS.17

The second challenge is for supervisors who will need to adapt to operate effectively in Solvency II risk-based environment. John Tiner, chief executive of Britain's FSA, has already noted that supervisors, including the FSA, would need to shift the skill set of the supervisors from understanding rules to understanding markets.18 Further, he notes that the FSA started this shift when he took over as chief executive in autumn 2003 with the introduction of the FSA's individual capital assessment regime for British insurers. The FSA experience would therefore suggest that EU supervisors should consider piloting aspects of Solvency II in their own jurisdictions in advance of the formal introduction of Solvency II to make the transition as smooth as possible.

Firms will need to implement Solvency II. It is still early days to be precise but it is clear that implementation will be a challenge that firms will need to manage. The extent to which firms have adopted a risk management culture will facilitate the implementation. Change will still be required, but in terms of strengthening existing risk management processes.

Impact of Solvency II

The commission is undertaking an economic analysis of the impact of the proposals with the support from firms through their participation in QIS2 and other stakeholders.19 Unfortunately, at the time of writing the commission had not yet published a draft of its impact assessment and CEIOPS had not yet published its report on QIS2 results. There are nevertheless various observations that can be made about the impact of Solvency II.

Solvency II will lead to changes in the measurement of risks in insurance firms, including the one-off costs of upgrading or developing internal models, where firms intend to use them. It would also lead to changes in risk management given the emphasis of Pillar 2 supervisory review. At the same time, there would be benefits for firms from convergence of risk measurement approaches. Many insurance firms maintain more than one approach to measure solvency: for regulators, for rating firms and for internal purposes. The adoption of an economic based approach for Solvency II should foster such convergence with consequential benefits in terms of clarity and management focus.

Overall capital requirements may well increase under Solvency II. Qualitative feedback about QIS2 suggests that there are
still questions about how the calibration of capital requirement is implemented in particular in the context of a standardised approach. However, the impact on firms would be determined by the change in excess capital from the Solvency I level. If there is a reduction in excess capital, the impact will be determined by management’s views about the role of the excess capital in the business. For example, if management sees the excess capital as instrumental to maintain a level of rating, then the firm may want to raise extra capital to maintain its rating.

One issue that could increase capital requirements beyond what has been considered to date would be switching from a risk measurement based on VaR to one based on tail VaR. VaR has become an acceptable measure of risk partly because it is easier to communicate than tail VaR. Tail VaR is more difficult to calculate because it requires more data than VaR. A given level of VaR can be recalibrated to tail VaR but given the data needs of tail VaR approach it could still result in a significant increase in capital requirements.

The commission expects to adopt a framework directive in July 2007 for implementation by around 2010.

Solvency II aims to achieve various objectives including improving the allocation of capital and maintaining policyholder protection. There is growing clarity at a high level about how to achieve these objectives. The challenge is designing concrete policy proposals. The commission and CEIOPS are making progress, but there are still open issues including the treatment of diversification and risk mitigation, market consistent valuations of assets and liabilities, balance between quantitative requirements and risk management and group issues. Solvency II is being developed as a “Lamfalussy directive” and it is important that these issues are appropriately addressed in the framework directive so that discussions about implementing measures focus on implementation.

Notes

1 The underlying directives have been updated in various occasions and new requirements have been introduced, noticeably for insurance groups but the overall framework has remained unchanged.

2 For example, the European Commission referred recently two member states to the European Court of Justice for not implementing the Financial Conglomerates Directive which determines the capital requirements of financial conglomerates (see the Commission’s press release of 19 April 2006). One of these member states is the home supervisor of a number of insurance groups that are regulated as financial conglomerates.

3 European Commission, Solvency II road map -- towards a framework directive, July 2005.

Summary: the immediate challenge

The current EU solvency approach is now out of date. Solvency II is intended to shake prudential regulation of insurance and bring it closer to the economic realities of insurance firms.
4 EC, Amended framework for consultation on Solvency II, April 2006.
5 See www.ceiops.org for CEIOPS advice to the Commission in response to these requests.
6 QIS1 was concluded in December 2005 and focused on the level of prudence in technical provisions. An additional QIS study is envisaged for 2007.
7 The Lamfalussy approach includes a fourth level: enforcement by the European commission to ensure effective implementation of EU legislation. This is a vital to deliver harmonised Solvency II and the commission will need to ensure that appropriate resources are allocated to this activity.
9 The recent QIS2 exercise shows how Solvency II may take into account diversification benefits within legal entities (levels 1 and 2 in Box 1), but did not cover group diversification benefits. CEIOPS accepts in principle group diversification benefits but more details are still needed in terms of how much credit groups would be able to take in practice, see “Advice to the European Commission in the framework of Solvency II project on sub-group supervision, diversification effects, cooperation with third countries and issues related to the MCR and SCR in a group context”, November 2006.
10 See Figure 7 in CRO Forum, A framework for incorporating diversification in the solvency assessment of insurers, June 2005.
11 For example, AXA securitised recently the claims risks arising from its French motor insurance portfolio (see press release from AXA dated 9 December 2005).
12 See CRO Forum, A market cost of capital approach to market value margins, March 2006, for a discussion of this approach (see CEIOPS, “Draft advice to the European Commission in the framework of the Solvency II project on Pillar I issues – further advice", Consultation Paper 20, November 2006). A suggested alternative is based on a predefined confidence level in the distribution of provisions, the 75th percentile. So the risk margin would be the difference between the expected value and the 75th percentile. In this article, it is not possible to discuss the detail (see Bulmer, R., “Solvency II – the risk margin calculation", Insurance and financial services review, Watson Wyatt, October 2006 for a summary of both approaches). But the concern is that the percentile approach could lead to inappropriate regulatory valuations of liabilities. For example, in a risky line of business firms may estimate the cost of holding the risk to be in excess of the 75th percentile but the opposite may occur in more stable and predictable lines of business.
14 One option would be designating capital add-ons as a last resort, after requirements for risk management have been considered and discarded, as in article 136 of the Capital Requirements Directive.
15 See CRO Forum cited in note 10 above and in the particular the policy recommendation on supervision in page 48 which builds on article 129 of the Capital Requirements Directive and also Comité Européen des Assurances (CEA) and CRO Forum, Feedback on CEIOPS consultation paper 14, September 2006, on the assessment of the equivalence of non-EU supervisory regimes. Similar views are also expressed in HMT and FSA, Solvency II: a new framework for prudential regulation of insurance in the EU, February 2006.
16 See HMT and FSA cited above.
17 See CEA and CRO Forum, cited above.
18 Tiner, J, "Solvency II – the way forward", speech to ABI conference on Solvency II, April 2006.
20 CEA, Preliminary feedback on QIS2, October 2006.
21 See Figure 2, excess capital is defined as the value of the assets minus the value of the liabilities minus the solvency requirements.
22 Alfon, I, I. Argimon and P. Basurana-Ambros, “What determines how much capital is held by UK banks and building societies?", Occasional Paper 22, July 2004, explores the relationship between individual capital requirements and actual capital for UK banks and building societies. They conclude that, on average, banks transfer in the long term 71% of an increase in capital requirements to actual capital.
23 VaR represents the expected loss for a given confidence level. Tail VaR is the average expected loss when the loss exceeds the confidence level (also referred to as conditional tail expectation and expected shortfall).