With just over two years remaining until Solvency II takes effect across the European Economic Area (EEA), we’ve seen a steady stream of developments over the last 18 months.

Thus far, the high-level principles in the Solvency II Directive (Level 1) have been approved. The remaining work is to develop and finalize the details of the new framework, including:

- Level 2 implementing measures to be published in 2011 and then ratified
- Level 3 guidance to be drafted and communicated
- Decision on the equivalence of other regulatory regimes outside the EEA
- Quantitative Impact Study 5 (QIS5) exercise to be completed, plus any additional QIS exercises that might be necessary

In this article, we examine some of the challenges and opportunities facing insurers as they prepare for Solvency II implementation.

Quantitative Impact Study 5

A major activity related to Solvency II is QIS5, which is being run by the European Commission with support from the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS). QIS5 is a test of the latest proposals for the base balance sheet and Standard Formula capital calculation. The Standard Formula is the default for companies in the new regime. It consists of a series of stress tests that are applied to the market-consistent base balance sheet, allowing for diversification and any risk mitigation currently in place.

QIS5 objectives include understanding the impact of Solvency II on companies’ balance sheets and testing companies’ readiness. Several thousand companies are expected to participate, including a significant number of small and medium-sized companies, as well as insurance groups.

QIS5 runs between August and November 2010. The key milestones are shown in Figure 1. Compared with the last impact study, QIS4, the QIS5 calculations are likely to represent a significant strengthening of the requirements. (For more information on QIS5, see “Insights — Solvency II: Getting to grips with QIS5” on www.towerswatson.com.)

“One innovative proposal is to allow companies to use their own internal model for regulatory purposes.”

Figure 1. Key QIS5 milestones
**Internal Model Application and Approval**

One of the innovative proposals around Solvency II is to allow companies to use their own internal model for regulatory purposes, subject to meeting specified requirements in areas such as calibration, quality, documentation, data and use in the business. Internal models (and partial internal models, where internal models are used for a subset of risks) represent an alternative to the Standard Formula being tested in QIS5.

Companies have different reasons for wishing to pursue the internal model option. Larger organizations may be under pressure from analysts who expect market-leading risk management, while others could have concerns about whether the Standard Formula adequately reflects the risks in their business. Whatever the reason, the decision to pursue an internal model should not be considered lightly, given the additional requirements and standards expected for supervisory approval.

Some supervisors are already creating processes to facilitate approval in time for the start of Solvency II. For example, in the U.K., approximately 100 companies have indicated their intention to use an internal or partial internal model. As a result, the U.K. supervisor has established a pre-application process with certain criteria that a company must meet before it can be accepted.

To enter the internal model application process, a company must have completed the QIS exercises and have all of the following:

- Credible plans for the overall Solvency II project, with an approved budget from the board
- An appropriate Solvency II project governance structure
- Plans to iteratively improve the internal model
- Supporting documentation for the internal model

To demonstrate board-level engagement, the company CEO should sign off on the application.

**Improving Systems and Tools**

The new standards underlying Solvency II — for Standard Formula and internal models — will require companies to invest significantly in systems to generate robust numbers the board can stand behind. The group requirement under Solvency II extends to subsidiaries outside Europe, which will also have to perform Solvency II-type calculations.

Property & casualty companies are beginning to realize that the process for deriving technical provisions based on best-estimate cash flows is a fundamental shift from current reserving and will require system changes to allow, for example, discounting of the underlying cash flows.

Similarly, the valuation of options and guarantees will be a challenge for life insurance companies that do not have a tradition of market-consistent reporting. Setting up systems to perform the associated stochastic calculations is complex and usually requires enhancements to existing actuarial models.

Additionally, companies are looking at more sophisticated techniques — such as replicating functions and replicating portfolios — that will provide timely information on the solvency position. Such information allows a company to quickly produce an up-to-date solvency assessment and react proactively to challenges, such as the recent financial crisis, as they emerge. This is necessary if a company is committed to embedding the internal model within the business.

Companies will be using QIS5 as an opportunity to pilot the new calculations with a view toward developing a production version in time for the implementation of Solvency II. An internal deliverable from the QIS exercise should be a management report that describes any shortcomings in processes, systems and available resources, as well as a plan to address them.
Embedding Risk Management in an Organization

All companies under Solvency II will be required to complete an Own Risk and Solvency Assessment (ORSA). For the ORSA, the company must be able to monitor the overall solvency needs of the organization, taking into account the specific risk profile, the approved risk tolerance limits and the business strategy of the undertaking.

The ORSA is expected to engage senior management, as it relies on them to provide the strategic objectives, the risk strategy, and details about the risk appetite and corporate planning. Though board members will delegate many of the tasks, the overall accountability for understanding and endorsing the organization’s capital needs over the foreseeable strategic horizon rests with the board.

The ORSA is expected to bring together key components of the risk management system. CEIOPS has defined five core principles, summarized in Figure 2, with further guidelines expected in late 2010.

Some companies are already using the ORSA to help promote their internal enterprise risk management (ERM) frameworks. Areas of focus include:

- **Risk appetite.** Developing a coherent risk appetite with a focus on board engagement, the risks the organization is willing to accept, the associated risk limits and tolerances, the key metrics to be monitored and the ways in which the risk appetite will evolve as external conditions change.

- **Risk identification and assessment.** Developing a formal process for the bottom-up identification of risks within the organization and how they should be managed. The work around Solvency II has been helpful in standardizing the categorization for insurance, market and counterparty risks; therefore, much of the focus has been on items such as operational and emerging risks.

- **Risk measurement.** When the risks have been identified, the company must have a robust method of quantifying them in a timely manner. The work around QIS5 and internal models is helping to promote a market-based economic capital assessment that is the standard under Solvency II.

- **Risk reporting.** To embed a risk management framework, results must be available on a timely basis, and sufficiently flexible and detailed for management to be able to make decisions at either a product or risk level. Increasingly, companies are developing risk dashboards and traffic light indicators to communicate risks more widely and effectively within (and sometimes external to) the organization. At the same time, companies are taking a critical look at their management information. Some of this can be silo-based and a legacy of the past, and can be switched off if it is no longer used to steer the business.

- **Scenario testing.** It is often easier for senior management to engage in scenario development and then work through the implications of the scenarios and potential mitigating actions. Scenario testing can cover plausible events, such as the impact of a mild recession, or tail events, such as the impact of a deep recession, a hyperinflation environment or a natural disaster. These help make risk management real for the board. More recently, companies have been thinking about reverse stress tests that focus on identifying scenarios that could cause the company to fail to meet its stated internal objectives.

- **Link to business strategy.** Risk assessments should be forward-looking. Business plans should include details about the capital implications of different new business strategies, volumes and margins. This links risk management to the

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**Figure 2. Core principles for the ORSA**

<table>
<thead>
<tr>
<th>Principle</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>Principle 1</td>
<td>Responsibility of the undertaking</td>
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<tr>
<td>Principle 2</td>
<td>Encompass all material risks</td>
</tr>
<tr>
<td>Principle 3</td>
<td>Based on adequate measurement and assessment processes, and embedded in the decision making of the organization</td>
</tr>
<tr>
<td>Principle 4</td>
<td>Be forward-looking</td>
</tr>
<tr>
<td>Principle 5</td>
<td>Appropriately evidenced/documented and independently assessed</td>
</tr>
</tbody>
</table>

“All companies under Solvency II will be required to complete an Own Risk and Solvency Assessment.”
capital planning process and highlights whether additional capital sourcing might be necessary. A similar assessment should be undertaken before any major strategic decision is made — for example, a merger or acquisition.

- **Governance and committee structure.** For many companies, the governance and committee structures have not kept pace with developments around risk management. Companies are taking a fresh look at the existing structures with a goal of redesigning their decision-making processes in light of higher-quality, and more detailed and timely, risk information that will become available.

- **Board education.** The board is ultimately responsible for Solvency II, so there is an increasing focus on training board members on their responsibilities under the new regime. This also extends to nonexecutive directors. Solvency II has a legal entity focus, and for insurance groups with multiple legal entities, the work required to bring all of the boards up to date with the requirements should not be underestimated.

- **Documentation.** There are extensive justification and documentation requirements around data, assumptions, methodology, management actions and expert judgment. Such information would be a prerequisite for internal model approval, and companies are dedicating resources to improving and standardizing documentation across the organization.

A risk management culture cannot be created and embedded overnight. It requires a strong commitment from all involved, especially those at the top. Those companies that get the risk culture right will be in the best position to take maximum advantage of the new framework.

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**Rationalizing Disclosures Under Solvency II**

One of the building blocks behind Solvency II is increased private and public disclosure, which will help enforce market discipline on companies.

Private disclosure to the regulator, in the form of the Report to Supervisor (RTS), is extensive. It goes beyond the quantitative requirements to include an assessment of the system of governance, risk profile, and business and performance. This is not without its issues, as companies might have some residual discomfort in sharing their private corporate ambitions (as might be set out in the ORSA) with supervisors.

The planned public disclosure known as the Solvency Financial Condition Report (SFCR) is also extensive. It will add to the already existing disclosures from companies related to EEV, MCEV, IFRS and local GAAP. This poses challenges for companies, as some have expressed concerns about the publication of what is currently considered proprietary information.

From a practical point of view, companies need to start developing the necessary infrastructure that will enable them to produce disclosures in a timely fashion.

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Project Management and Skilled Resources

At the European level, progress on Solvency II compliance is mixed. Progress is greater in markets where supervisors have been actively engaging with the insurance industry and setting out clear milestones and expectations.

In such markets, many companies have already created a dedicated Solvency II program with a significant commitment of time, money and resources in order to achieve Solvency II compliance. There is, however, a danger that these all-encompassing programs are caught in a planning paralysis. More recently, we have seen companies breaking the program into manageable pieces with a focus on targeted deliverables to be developed iteratively between now and 2013.

Human resources are posing another challenge. Solvency II requires skilled finance, actuarial and risk management employees, and these (especially employees with Solvency II experience) are in short supply. As a result, there is a danger that companies are putting together plans that make unrealistic assumptions about their ability to hire new skilled staff. This problem is likely to be exacerbated over the next two years, as companies, advisors and supervisors compete for the same scarce talent.

In response, companies should be looking to use the employees they already have, via training programs and Solvency II project work. This helps embed the knowledge within the organization, avoids disenfranchising existing staff and provides a more concrete resource base.

A CEO Perspective

Solvency II has wider implications for insurance companies. On balance, they should expect greater regulatory involvement than in the past. This could be in the form of greater supervisory challenge on the assumptions and approaches being adopted; questions on governance and decision-making structures; and in extremis capital add-ons if the supervisors believe that the risks are insufficiently measured or managed within the organization.

However, Solvency II also brings opportunities. Some companies see it as a catalyst to invigorate and grow their existing ERM frameworks and an opportunity to gain a competitive advantage. Management has begun to engage on the strategic opportunities that might result from the new framework. For example, a number of groups have cited Solvency II — and, more specifically, the desire to maximize diversification effects — as one of the reasons they are simplifying their corporate structure and reorganizing certain divisions as branches. For these and other strategic decisions, QIS5 provides a useful reference point, as it provides a quantitative framework to assess different strategic options and a basis for an objective cost/benefit evaluation.

Solvency II also has implications for investment and reinsurance strategies. Capital requirements will be driven by the two or three major risks to which a company is exposed. Exercises such as QIS5 enable companies to identify such risks. Management then needs to decide whether to act. If they are uncomfortable with their risk exposure, then a hedging, reinsurance or other risk-reduction strategy will be necessary. It is important to table such issues now, for management to have sufficient time to pursue any risk reduction strategy in advance of Solvency II implementation.

Similarly, companies should be examining the profitability of products under a Solvency II basis. Decisions will be required on whether to adjust pricing or product design — or to exit certain products or markets if they are no longer considered viable.

Ultimately, Solvency II will define how companies in Europe organize themselves and how risk is measured, managed and perceived, both within the organization and externally. Solvency II comes into force at the beginning of 2013, and both insurers and supervisors must address considerable challenges to be ready in time. There is no room for complacency.

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