

2006 Solvency II report

# Solvency II: Readiness & beyond

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## The pressure of Solvency II is mounting on insurers

In October 2006 the European Commission aims to issue a draft of the Solvency II Directive. The planned date for submitting the proposed Directive to the European Parliament is July 2007.

The Directive will outline a new framework for the regulation and supervision of the European insurance industry. Solvency II is intended to provide supervisors with the appropriate tools and authority to assess the solvency of insurance companies in Europe as part of their overall risk management. It also seeks to create a level playing field between banks and insurance companies by stipulating that products containing similar risks should, in principle, be supervised in the same way and be subject to the same capital adequacy requirements.



## Executive summary

**Ernst & Young's 2006 Solvency II Readiness Survey, conducted among the top insurance companies in Europe, revealed that over 80% of respondents have already started their Solvency II projects or intend to start them this year. Over 60% of survey respondents also see Solvency II as a means to improve risk management.**

The pressure of Solvency II is mounting on insurers. While our survey revealed that the industry is embracing Solvency II, it also highlighted some key challenges for implementation. Respondents are struggling with the practical application of results obtained from internal models and the adequacy of information systems, data collection and skills within their organizations, and many have concerns over implementation costs.

Further analysis of the survey results also revealed three major themes impacting implementation:

- The extent to which the experience of Basel II provides a model for Solvency II
- Hope over the possible convergence of measurement principles for IFRS and Solvency II
- Whether Solvency II is encouraging the industry towards enterprise risk management (ERM)

This report explores these key findings and themes.

## Methodology and sample

The 2006 Solvency II Readiness Survey was modeled on Ernst & Young's French Solvency II Readiness survey completed during April and July 2005. The European survey was conducted between February and July 2006 using a combination of face-to-face and telephone interviews.

The objective of the survey was to obtain insight into the level of awareness of insurers regarding the Solvency II project, current status of the expected Solvency II requirements, where they stand in terms of achieving compliance, their position on key topics, and anticipated difficulties.

The sample was based on the top 100 insurance companies in Europe and most respondents were those with a direct responsibility for the Solvency II program. The regional distribution of the 54 respondents included companies located in Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, The Netherlands, Norway, Poland, Portugal, Spain, Sweden, and the UK. The average asset size of companies in the survey was €110 billion.

## Improved risk management

Solvency II will encourage improved management of risks across Europe, according to 61% of respondents

## Less focus on operational risk

Operational risks are currently being measured and modeled less than other categories of risk

## Measuring performance in relation to risk

Fewer than 50% of respondents have implemented risk-weighted performance metrics

## Internal models for economic capital

Nearly 50% of respondents have economic capital models that will require significant enhancement to comply with Solvency II

## The systems challenge

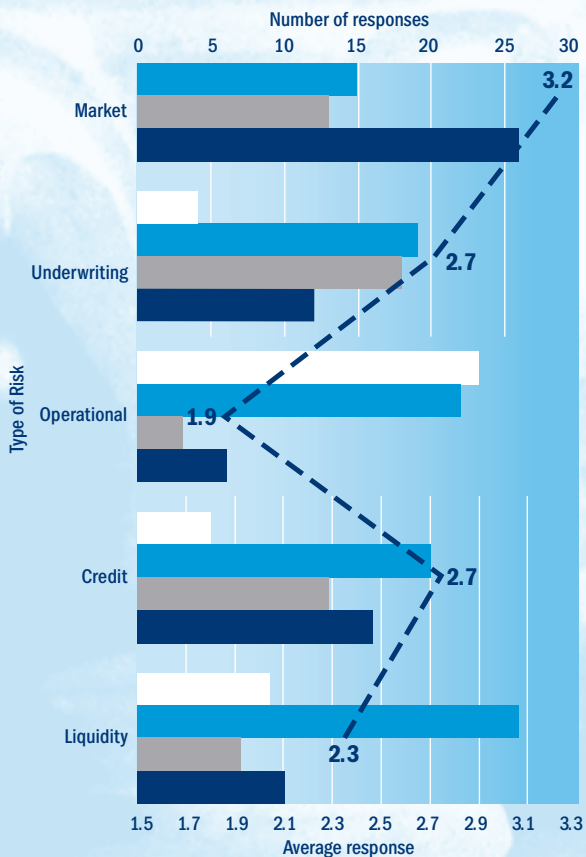
Larger companies anticipate major information system changes ahead, although just over 50% of total respondents do not consider this to be an issue

## Greatest challenges to implementation

Implementation costs, obtaining adequate data and difficulties with the practical application of results from internal models were noted as the largest difficulties in implementing Solvency II

**Figure 1 - If you measure and monitor risks, please rate the following risks according to the following scale**

- 1.  Not modeled or measured
  - 2.  Some modeling or scenario testing (e.g. Asset Liability Management, business plans)
  - 3.  Modeled to assess capital requirements
  - 4.  Fully integrated into risk management, monitoring and reporting
- Average response



## Key findings

### Improved risk management

Respondents believe that Solvency II will encourage better understanding of risks and improved risk management. However for nearly 30%, there is some skepticism as to whether these improvements justify the effort involved in implementing the new regime – an observation that may link to concerns on rising costs. However, across Europe as a whole, 61% believe that Solvency II will encourage proper measurement of risks, enhance their companies’ approach to risk management, and improve risk-based pricing and capital management functions.

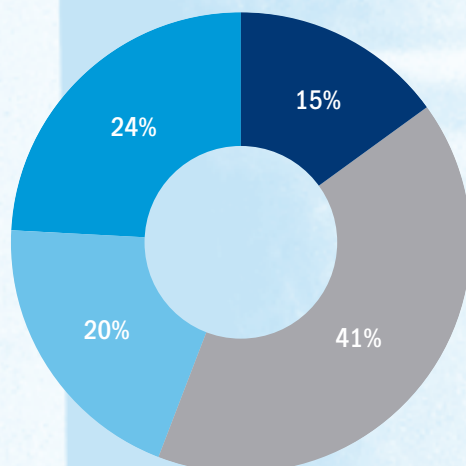
### Less focus on operational risk

Insurers are currently measuring and modeling operational risks less than other categories of risks (see figure 1). This is partly due to difficulties companies face with quantifying operational risk. Effective operational risk management (ORM) requires a considerable data history that, due to the relatively new nature of ORM itself does not exist for most insurers. As stated later in this report, this experience mirrors that of Basel II where the focus on operational risk was, at the initial implementation stages, far less than other risk categories. Market and insurance risks are at the core of the insurance industry and as a result, insurers are used to managing and quantifying these risks.

Historically however, operational risk has been a contributing factor to many large corporate failures, and those insurers not looking at operational risk as a critical aspect of risk management should now do so. Models that measure and assist in managing market, credit, and insurance risk will fail if operational risk is not properly managed. Operational risk management not only helps to reduce the risk of failures in business processes, but also contributes to improving the accuracy of other risk and value metrics.

### Measuring performance in relation to risk

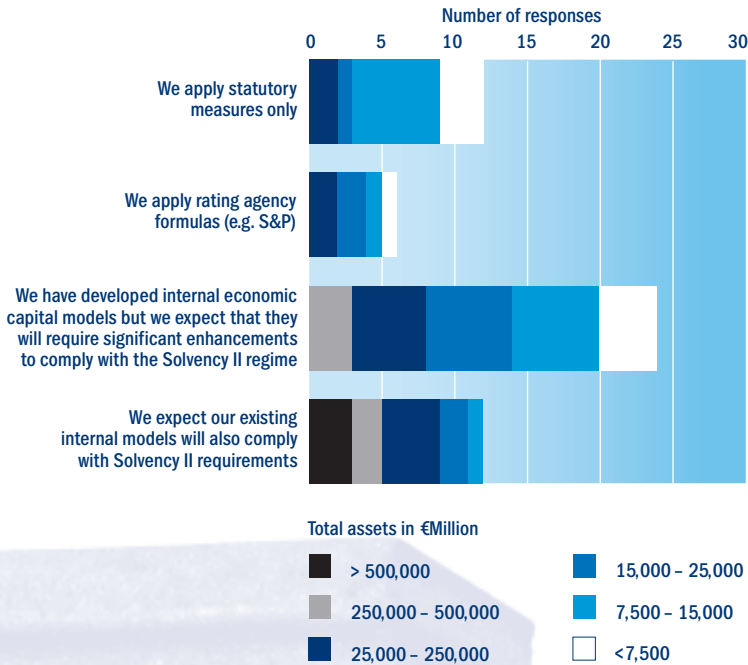
Fewer than 50% of respondents have implemented risk-weighted performance metrics. These metrics force management to be more accountable and to consider risk and performance in their strategic decisions – thus enabling economic capital models to work. What this finding highlights is that many companies are now at least on the path to embedding risk management within their organization and linking this with performance (see figure 2). It is likely that those companies with internal models that follow Solvency II requirements (see figure 3) will be able to implement risk-weighted performance metrics more easily.



**Figure 2 - To what extent do you have indicators to measure the performance (profitability, value creation) of your company/group?**

- We have indicators based on accounting data (e.g. net income, underwriting results)
- We have some additional indicators on performance and risk management (e.g. return on risk capital)
- We have some additional indicators on performance (e.g. embedded value, value of new business)
- We have already converged towards economic value-based criteria (e.g. return on economic capital)

**Figure 3 – How do you assess capital requirements today?**



### Internal models for economic capital

Our survey reveals that the majority of companies anticipate using their internal models for Solvency II. Over 50% of respondents envisage using a mixture of standard formula and internal models and nearly 30% intend to use internal models exclusively, though only 20% expect their current internal models to comply.

While there are enhancements to be made, these findings demonstrate that the industry is moving in favor of economic capital metrics and sees the subsequent benefits. The implementation of new internal models or enhancement of existing models allows for a risk-based approach to regulatory capital that can be tied to management approaches based on economic capital. This can lead to a more efficient use of existing capital, more risk-sensitive business planning, better product pricing and economically meaningful profit targets.

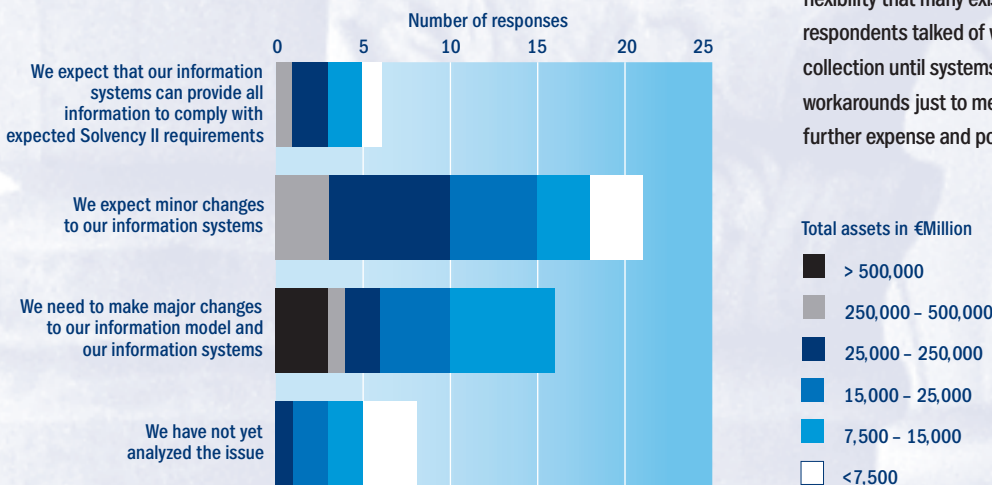
### The systems challenge

Changes to existing information systems are not considered to be a significant issue for 53% of respondents, although some minor systems changes may be necessary.

However, there are some marked differences between the perceptions of the smaller and larger companies in our sample when asked about systems challenges, with the larger companies anticipating that major changes will need to be made to both information models and corresponding systems (see figure 4). It remains to be seen whether this difference can simply be explained by the greater systems complexity of the larger institutions.

Information systems that provide management with the dashboard and levers to execute and monitor strategy through a pre-set risk appetite also provide the backbone for economic capital models and for reporting on solvency. However, this requires a sophistication and flexibility that many existing systems may not have. In interviews respondents talked of working around their shortfalls for data collection until systems have been adapted. However, in our experience, workarounds just to meet regulatory requirements will only lead to further expense and potential loss of control over reporting.

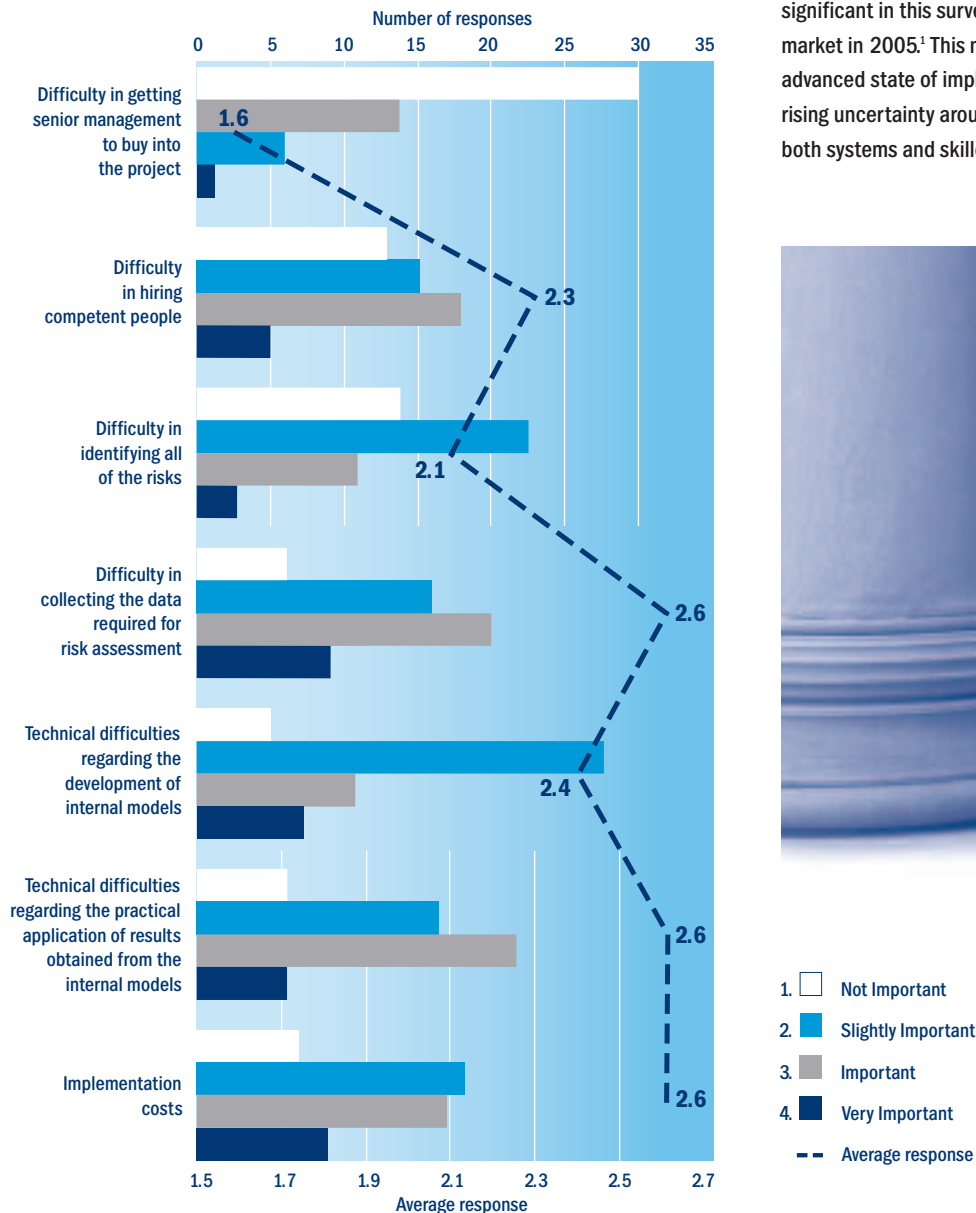
**Figure 4 – To what extent do you anticipate that Solvency II will change your company's/group's requirement for financial and non-financial information and the underlying systems?**



## Greatest challenges to implementation

Collecting the data required for risk assessment was identified as a difficulty by 57% of respondents (see figure 5). This reflects specific challenges that insurers face as they implement advanced risk measurement and modeling capabilities. In particular, risk-sensitive capital requirements should reflect the amount of capital that needs to be held to protect against extreme circumstances. Insurers rely on the analysis of historic data to predict future outcomes, but the quantity of data available on extreme events is limited and such outcomes are difficult to predict with any accuracy. Another aspect of the data challenge relates to the timely production of meaningful information on exposure to risks. Risk exposures are particularly complicated for insurers and a large volume of data needs to be reported and managed in new ways. Our survey indicates that companies recognize that there will be significant challenges ahead to manage data and to maintain data integrity in a more sophisticated risk management environment.

**Figure 5 – Anticipated difficulties regarding implementation**



Implementation costs were highlighted as more significant in this survey than in our survey of the French market in 2005.<sup>1</sup> This may be explained by the now more advanced state of implementation of Solvency II and rising uncertainty around the overall costs for upgrading both systems and skilled resources.



<sup>1</sup> In mid 2005 we conducted a similar survey of the French Market.

## Three major themes are impacting implementation

### 1. Playing catch-up with their banking brothers? The Basel II experience

Solvency II is often described as the Basel II for insurance companies but is there really a blueprint for implementing Solvency II that can be drawn from the experiences of banks with Basel II? And can the experiences of Basel II be leveraged to accelerate implementation? Based on our industry research and work with international banks, there are four main findings from the Solvency II survey that we believe are worthy of comparison and contrast with Basel II.<sup>2</sup>

#### ■ Uncertainty on the cost of technology and systems requirements

Our survey respondents anticipate considerable costs for Solvency II implementation and it is likely that a substantial part of this cost will be attributed to systems (see figure 5). Our recent Global Basel II survey revealed that overall costs for implementation continue to rise, with 75% of respondents attributing this to data and systems infrastructure challenges. With Solvency II, the technology cost is obviously still unknown, but we anticipate a similar trend.

As with banks, we expect also that an increased need for data for both risk and finance will force a greater alignment of technology across insurance companies. With Solvency II, the regulator will focus more on the adequacy of models and systems in the context of each supervised company. On a positive note, and again similar to the banking experience, Solvency II may provide a trigger for departments to get long-awaited funding for larger information technology projects.

#### ■ Internal models allow more flexibility for insurers

Similar to the Basel II internal ratings-based (IRB) approach, insurance companies will be allowed to use internal models as an alternative to standard, formula-based approaches. This is provided that the “use-test” requirement is fulfilled and the models are embedded in an appropriate internal control structure with sufficient management oversight.

Compared to Basel II, however, Solvency II is expected to be more principle-based, and less prescriptive with respect to the choice of internal models. It could be argued that this is why the majority of our survey respondents are planning, at least in part, to use internal models (see figure 3). What this will mean to the industry in terms of acquiring additional internal resources is currently unknown, but is likely to be substantial.

Only 36% believe that they have the right skills and adequately trained risk managers and actuaries

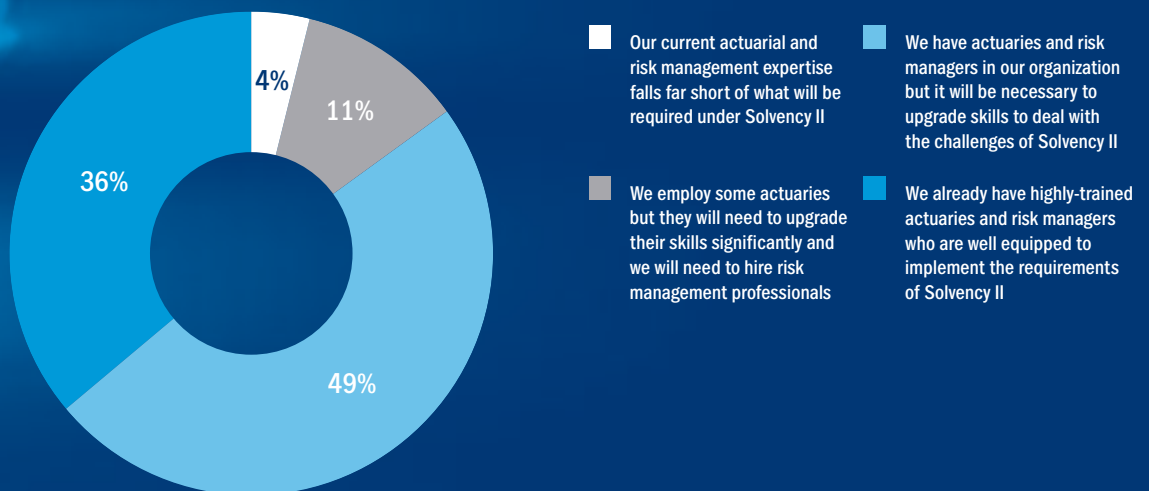
<sup>2</sup> Ernst & Young released a Global Basel Survey report, Basel II: The Business Impact, April 2006. The Survey included a sample of over 300 banks.

■ **Senior staff and management require additional Solvency II education**

Over 60% of respondents highlighted a need to upgrade the skills of actuaries and risk managers to deal with the challenges of Solvency II (see figure 6). This matches the findings of our Global Basel II Survey where, despite being further along in implementation, 54% of respondents believed that senior management still requires additional Basel II education.

One of the challenges we have seen with Basel II is the cultural change required to embed Basel II with key stakeholders in the organization. Our Solvency II survey reveals that companies believe they are prepared to comply with regard to risk and governance processes and more than 40% of respondents state that senior management approves and regularly re-assesses the principles of the company's risk strategy, assigns responsibility for these risks, and determines the company's overall risk appetite.

**Figure 6 – What is your assessment of the resources and skills available in your organization to implement Solvency II?**



■ **A similar approach to operational risk**

As stated earlier, our survey reveals that operational risk is either not being modeled or measured, or there is only a small level of modeling or scenario testing. Again, this follows the example set by Basel II, where banks have adopted the less advanced approaches for operational risk. What is interesting and slightly contradictory in our survey findings is that just over 60% of respondents recognize the importance of implementing a risk framework with checks and balances to monitor all risks (including operational risk). This is consistent with the building blocks defined by the CEA (Comité Européen des Assurances) for the SCR Standard Approach.

# Insurers have made significant progress in implementation and are seeing the advantages

## 2. IFRS: Reacting to the possible convergence of measurement principles

Considerable uncertainty still surrounds the pace of development for Solvency II, and Phase II of the IASB insurance contracts project. We believe that the likely scenario is that Solvency II requirements will be implemented before IFRS 4 Phase II, making it unclear which measurement principles will need to be applied for Solvency II.

The majority of our survey respondents currently use additional indicators other than financial statement information to monitor risks (see figure 2). It is difficult to reconcile risk and value indicators to financial statement information as they are based on different concepts, which reduces the relevance of both primary information and disclosures such as sensitivity analysis that are based on equity and results drawn from financial statements. Our survey respondents and participants at a recent insurance IFRS roundtable expressed a hope for the general concepts to be compatible to avoid the need for multiple reporting and valuation tools.<sup>3</sup>

We believe that companies intending to implement the presentation, measurement and disclosure requirements of all business, regulatory and financial initiatives in parallel, should realize that the amount, timing and uncertainty of cash flows should be evaluated and quantified consistently for management reporting, regulatory reporting and external reporting. This will prevent significant additional costs should various regulatory and reporting platforms require different measurement bases.

## 3. Solvency II as a bridge to enterprise risk management (ERM)

In the past it could be argued that a company's reporting was primarily driven by legal and other regulatory requirements. However, when asked about the benefits of upgrading to Solvency II in our survey, just a few respondents commented that the change is merely an additional regulatory burden. It would appear that Solvency II is driving a welcomed need for improved risk management and an integrated view of risk across the organization. By enforcing entity wide internal controls and risk management, Solvency II is encouraging the linkage of regulatory requirements to business strategy and risk appetite.

Many of the anticipated requirements for financial and regulatory reporting are focused on risk measurement and future cash flows. Information models can be designed to record cash flows and analyze them against projections and intentions. Such information models not only support management's actions, but also provide indicators on performance, volatility, and the credibility of past estimates. Selecting these indicators directly from management's dashboard for use in external and regulatory reporting enhances the robustness of such reports and reduces the cost of compliance.

However in order to reap the benefits of a solvency base that is responsive to all risk categories and linked to the planning and control cycle as well as the risk control and monitoring function, insurance companies need flexible information systems and data models. Many existing information systems are not sufficient to support enterprise risk management (see figure 4).

Our belief is that data workarounds are not the answer and will be more costly in the long run. With Solvency II, insurance companies have the opportunity to link regulatory requirements with business strategy and risk appetite and to drive business value through enterprise risk management.

<sup>3</sup> In June 2006 Ernst & Young organized an IFRS Roundtable with representatives from the European insurance industry to discuss experiences relating to IFRS implementation and developments relating to IFRS Phase II for insurance contracts.

## Conclusions

### Solvency II is not only about compliance — it is driving improved enterprise risk management

Solvency II is driving the convergence of economic capital techniques and enterprise-wide risk management in the global insurance industry. As insurance companies expand their borders, this will have an increasingly global impact. Solvency II is forcing insurers to take on a more holistic approach to risk. Along with IFRS, Solvency II is also aligning the metrics used to measure companies with the underlying risks, including not only insurance risk, but also market, credit, and operational risk. These risks are all now being used to measure performance.

### Getting ready requires insurers to take action — and challenges lie ahead

Insurers have made significant progress in implementation and are seeing the advantages of Solvency II — particularly in improved risk management. There is however significant work still to be done.

The greatest challenges cited around implementation are: inadequate data collection and access to information, insufficient people skills (additional education needed for senior staff and management) and systems limitations due to multiple legacy systems (particularly for larger companies).

Operational risk is currently less measured and modeled than other categories of risk. This is due to an industry-wide lack of historical data necessary for effective risk measurement.

Time will tell if the complexities related to Solvency II implementation and costs will outweigh the benefits of creating a more capital-efficient industry.

### A reporting revolution is taking place — across the entire industry

Important changes to financial reporting by insurers will be made in the next five years. Parallel to Solvency II, the IASB is working on Phase II of its insurance project. There is consensus that the measurement basis used for financial reporting should be at least reconcilable to the basis that is used for regulatory reporting. Participants in our IFRS roundtable felt that financial reporting standards and solvency requirements should primarily be driven by the way the business is managed.

### The opportunity is great — the time is now

Ernst & Young believes that Solvency II represents a significant opportunity for insurers to strategically improve their business performance through the linking of regulatory requirements, business strategy and risk appetite.

## About Ernst & Young and Solvency II

Ernst & Young's Global Insurance Network integrates the skills of accountants, tax advisors, actuaries, risk managers, and information system professionals who have a deep understanding of the insurance industry.

Our Risk Advisory Services teams include professionals with expertise in insurance and capital market products and processes, quantitative analytics, regulatory issues and risk technology. Our risk management and regulatory professionals work closely with our actuaries to provide leading-edge services to insurance companies. This includes the implementation, enhancement and review of risk capital measurement frameworks, market-consistent valuation of liabilities, and asset-liability management. We offer our clients a combination of deep actuarial and risk management experience, and we draw on our extensive knowledge of Basel II for the banking industry and of risk-based regulatory requirements for insurance in other jurisdictions.

Ernst & Young recognizes the importance of the development of a new solvency system for insurance companies in the EU and has set up a dedicated multi-disciplinary task force for this project. Our Solvency II Taskforce focuses on the conceptual development of the Solvency II framework and related multi-disciplinary assurance and advisory services regarding Solvency II.

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EYG No. DM 0004

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