Solvency II

Insuring risk compliance

An in-depth look at how European insurers are preparing for industry-transforming legislation

A research publication from InteDelta and BNP Paribas Securities Services

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Introduction

Solvency II represents the largest ever change for insurers operating in Europe. It is set to transform profoundly the way insurance companies operate.

Solvency II's overriding objective is to protect insurance policyholders and beneficiaries. It aims to put risk management at the heart of the insurance process. The new legislation will change the way all data used to calculate risk is collected, as well as how risk is assessed and how the Solvency Capital Requirement (SCR) is determined and reported.

Another aim is to integrate the European insurance market, harmonising insurers' approach while increasing their international competitiveness. It should also promote better insurance regulation on a global scale by setting a benchmark for international regulatory regimes.

Placing risk management at the heart of insurance companies will present great challenges. Whilst most insurers are already comfortable with gathering data on their liabilities, attention to the asset side is less well developed. It is estimated that market risk accounts for as much as 60% of total basic SCR among all risk types.

Insurers will now require new resources or skills. It will be appropriate for some insurers to build in-house expertise. Others however may need to outsource certain areas of their operations, harnessing the benefits while continuing to concentrate on their core insurance activities.

Solvency II also increases the reporting requirements for insurers, demanding they put more operational information in the public domain. This is sure to lead to much more analysis of this data, with the potential rise of consultants who will use it to rate insurers on their financial robustness. Insurers will therefore have to be more vigilant about providing accurate information in order to demonstrate enhanced governance.

Insurers will also have to report a complete risk profile to the supervisor, which implies complex new processes, reporting capabilities, as well as robust IT platforms.

Such complex and wide-ranging legislation demands considerable effort and resources.

This research paper presents the findings of a survey of insurance firms conducted for BNP Paribas by InteDelta in the summer of 2011. The aim of the survey was twofold:

- Gauge preparedness and progress towards delivery of Solvency II requirements
- Identify the particular areas that are proving challenging and which threaten compliance as we enter the final phases of the Solvency II implementation process.

Executive

Summary

Solvency II implementation has been delayed by an additional year to January 2014. This may represent a welcome relief to many firms, even if they face the cost of sustaining their existing processes for an additional year. Timescales may look more realistic and there is an **opportunity to consider alternative approaches to challenges.** In some cases these were beginning to appear intractable in the context of the previous January 2013 deadline in respect to data, risk governance and regulatory reporting.

Despite the apparent new breathing space, the large majority of survey participants recognise that **there is no room for complacency as much remains to be done** in particular for Pillars II and III – where regulatory attention will increasingly focus.

There is much variability in the extent to which firms are ready for Solvency II. Some are close to complete and would have been ready to go fully live, some are off the pace, but almost all face challenges in some aspects of their preparations. The leaders are already using the enhanced risk data provided by their internal risk models to inform strategic planning. The less advanced are focused simply on achieving compliance using standard models and strategies.

Many firms readily acknowledge that their emphasis has been on Pillar I requirements for the calculation of the Solvency Capital Requirement, and that **to varying degrees Pillar II risk governance and Pillar III disclosure requirements have been pushed out.** Several participants recognised the granularity of data and scope of the upgraded governance controls and processes as significant challenges to overcome. In particular, the **delivery of the Own Risk and Solvency Assessment** (ORSA), **the extension of risk governance to external providers of data, and the 'embedding' of enhanced risk governance** into all levels of the firm **need to be accelerated** if the requirements of Solvency II are to be met.

In terms of reporting requirements under Pillar III, the position that it is a straightforward matter to render data and analytics generated by Pillar I and II activities is superseded by **the realisation of the difficulty of aggregating data and compiling reports** within the prescribed timescales, particularly where there are **critical dependencies on external data providers such as fund managers.**

As always, data management is recognised as the key foundation for successful delivery of Solvency II requirements. **A substantial majority of the firms in our survey have dedicated workstreams to address data gaps and implement the required governance. Major challenges remain though, such as the requirement for look-through reporting and the need to extend data governance to cover third-party providers.**

Solvency II – what you need to know

Solvency II – what you need to know

The Solvency II framework is extensive and, as for most European regulations, implementation follows a complex legislative process. What are the main objectives of the regulation? What are the so-called 'Pillars'? And is the implementation date definitively established?

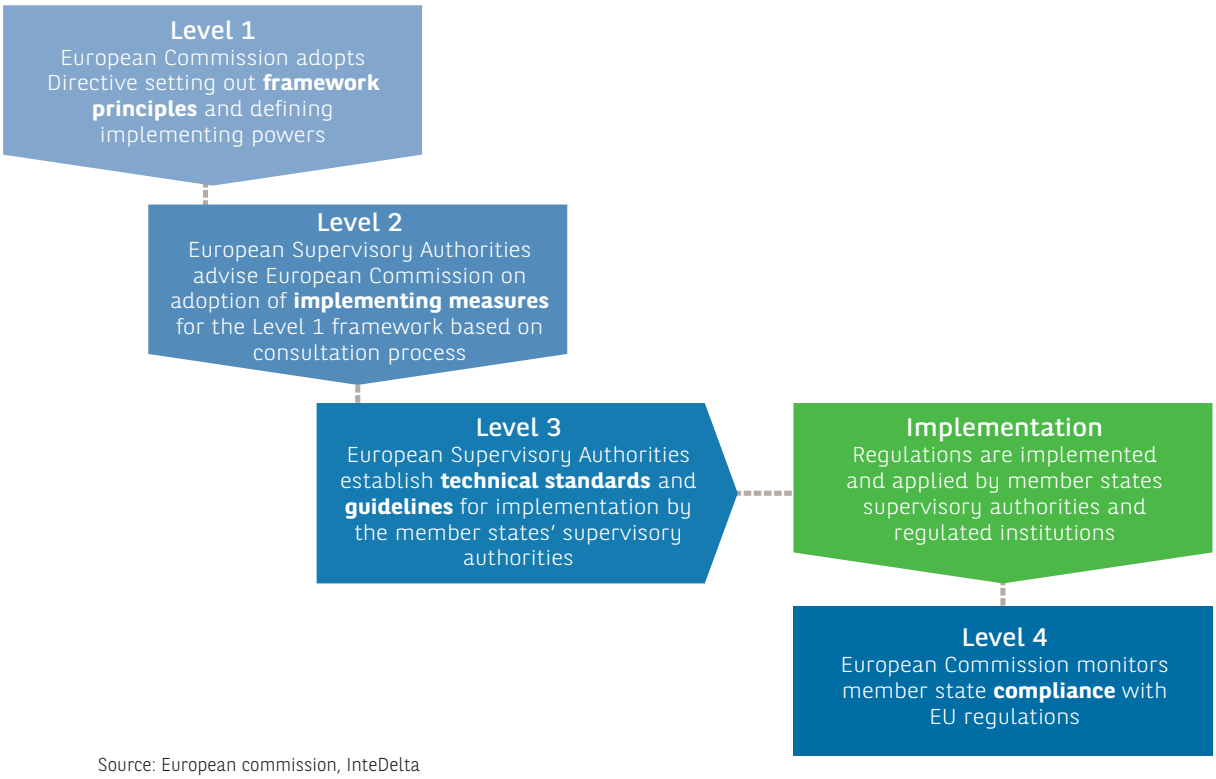
Objective of the regulation

The Solvency II directive seeks to create a unified regulatory framework for the conduct and supervision of insurance and reinsurance within the single European market. The directive, adopted in November 2009, updates the preceding Solvency I framework dating back to 1973, and seeks to eliminate the main variations in insurance regulation across the member states of the European Union.

The specification and implementation of Solvency II is the responsibility of the European Insurance and Occupational Pensions Authority (EIOPA). EIOPA is one of the three European Supervisory Authorities established to oversee the European System of Financial Supervision (ESFS). It evolved from the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS).

Solvency II regulations are being developed under the EU's Lamfalussy Process whose stages are as follows:

Figure 1: Lamfalussy Process for financial regulation in the European Union



Source: European commission, InteDelta

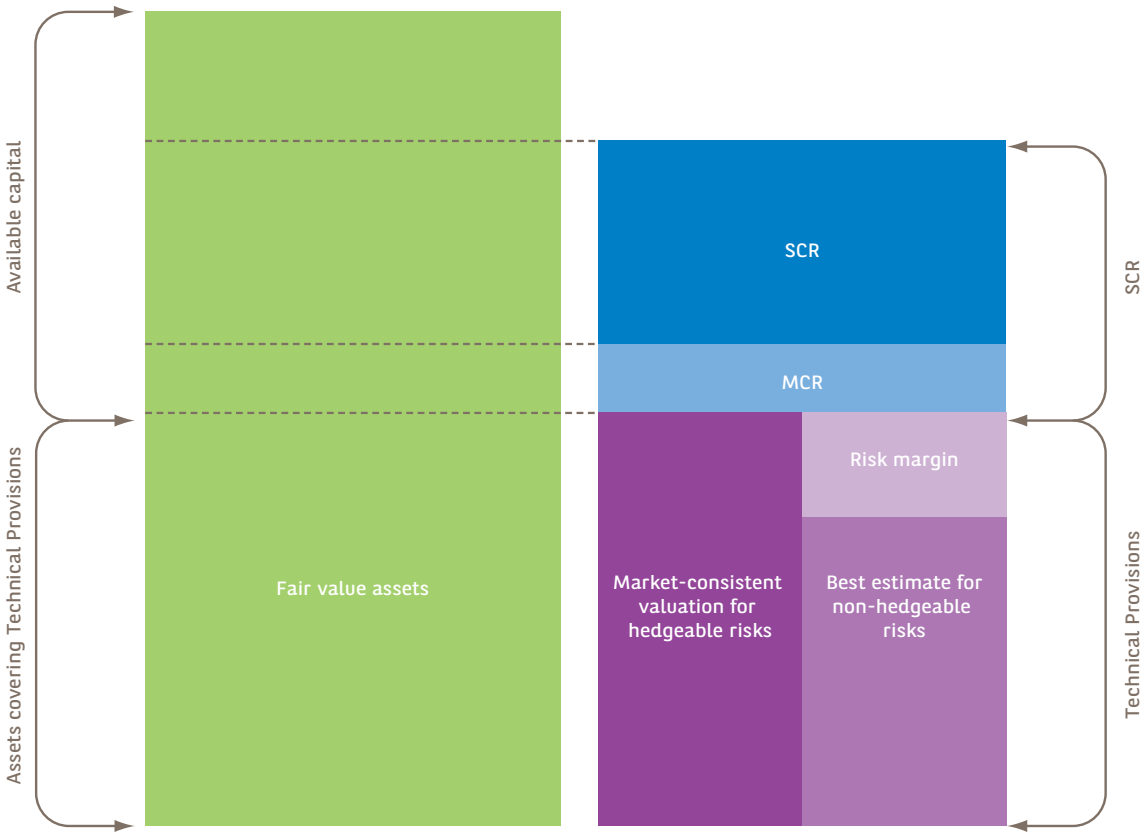
EIOPA is currently focused on completing Level 2 Implementing Measures and developing Level 3 Guidelines.

The Solvency II regulations, when implemented, will supersede existing national regulations, such as the Individual Capital Adequacy Standards (ICAS) regime in the United Kingdom.

The Solvency II framework echoes closely the Basel II and III prudential capital adequacy (and liquidity) rules for banks, although the scope of Solvency II is restricted to firms operating within the member states of the European Economic Area (EEA). **The core approach is to require insurance firms to evaluate and report an economic balance sheet, with assets and liabilities recorded at fair value.**

In practice, assets are generally marked to market while non-traded insurance liabilities are valued using a best-estimate plus risk-margin approach. Available capital is then defined as the difference between assets and liabilities and is compared to the risk-weighted level of capital required by supervisors to ensure that the solvency of the firm is secure to an acceptable level of confidence.

Figure 2: The Solvency II capital requirements

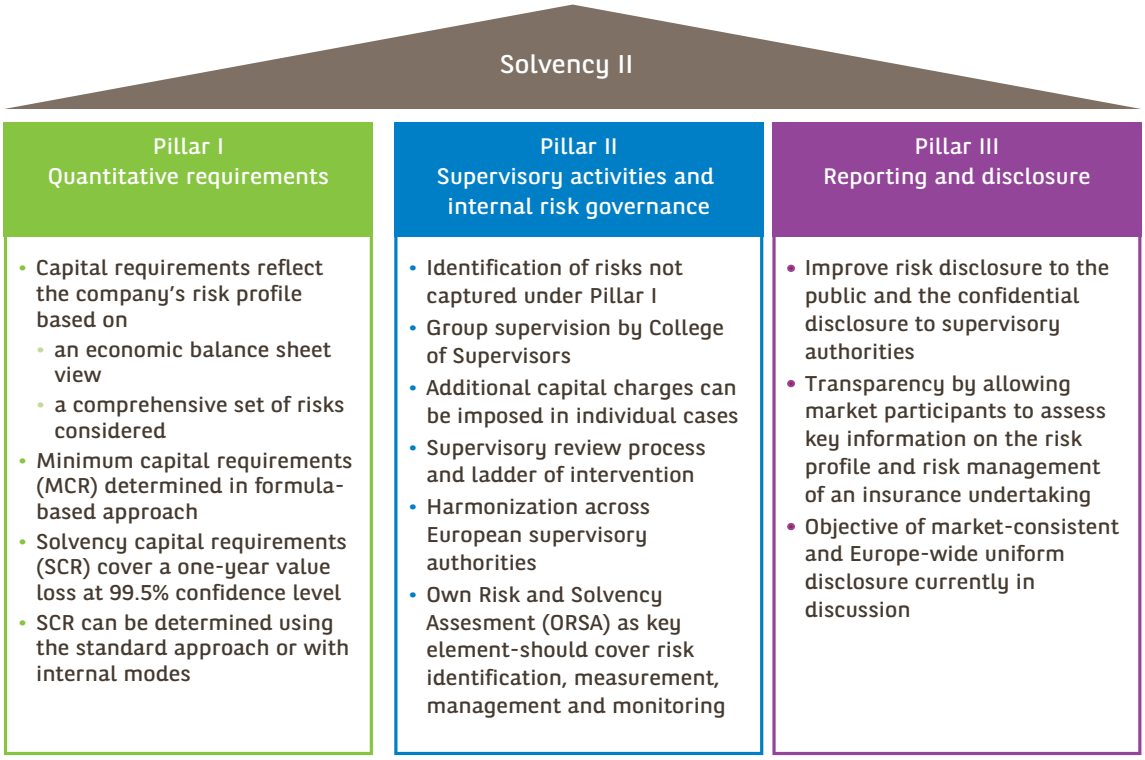


Source: EIOPA

The three pillars of wisdom

Solvency II measures are codified within three pillars as follows:

Figure 3: The Solvency II pillars



Source: directive 2009/138/EC of the European Parliament and the Council on the taking-up and pursuit of the business of insurance and reinsurance (Solvency II)

Pillar I

Pillar I establishes the methodology for establishing an insurance firm's risk profile and appropriate level of capital. It specifies the measurement of Technical Provisions and the key capital ratios; the Solvency Capital Ratio (SCR) and the Minimum Capital Ratio (MCR). The aim of the capital adequacy rules is to ensure that insurance firms hold adequate capital to absorb significant losses and continue to make good on their obligations.

Technical Provisions represent the amount of capital that an insurer must hold in order to meet expected future obligations to the holders and beneficiaries of its insurance contracts. It is consistent with the general application of fair-value principles to the valuation of assets and liabilities under Solvency II.

Technical Provisions are broken into two categories. Technical provisions that can be hedged will be marked-to-market, while those that cannot be hedged will be valued by calculating a probability-weighted 'best estimate' present value of cash flows and applying an appropriate risk margin.

The SCR is the higher of the two key capital adequacy requirements defined in Solvency II. It represents an amount of economic capital

required to provide 99.5% probability of adequacy over a one-year horizon, or approximately 1 in 200-year protection. If a firm's capital falls below the SCR, it is required to demonstrate to the supervisor how it will increase its capital to restore an adequate buffer.

The SCR is calculated by aggregating results generated by six high-level risk modules as follows:

- Market Risk
- Counterparty Default Risk
- Life Underwriting Risk
- Non-Life Underwriting Risk
- Health Underwriting Risk
- Intangible Risk

Each of these high-level modules consists of a series of sub-modules that address specific categories of risk. For each category, the value of assets and liabilities are projected into the future and a value-at-risk calculation performed to establish the capital allocation to meet the required survival probability (99.5% for the SCR).

The results generated by the high-level modules are aggregated to calculate the Basic SCR (BSCR). The BSCR is then refined by applying an Operational Risk charge and adjustments for the risk-absorbing effects of Technical Provisions and deferred taxes.

The **MCR** is the lower of the two key capital adequacy requirement defined in Solvency II. It represents an amount of economic capital required to provide 85% probability of adequacy over a one-year horizon, or approximately 1 in 6 year protection. If a firm's capital falls below the MCR, the supervisor is required to intervene directly to manage the recapitalisation of the firm or to withdraw its authorisation to conduct business. In general, the MCR is bounded at between 45% and 25% of the SCR. However, for life, non-life and health insurance business an Absolute MCR (AMCR) is also specified to set a floor for capital requirements.

Together, the SCR and the MCR are the key parameters for the 'ladder' of regulatory intervention under Solvency II.

Two generic approaches are available to firms for the calculation of SCR. The **standard model** implements a set of standardised risk formulae to calculate a firm's capital requirements for each category of business activity. The standard model is, by definition, non-entity specific and does not take into account any particular characteristics of the implementing firm's business.

The rigid approach of the standard model, in general, results in a conservative capital requirement. Many firms have therefore elected to specify and implement an **internal model** to calculate a more efficient capital requirement reflecting more accurately the type of business conducted and the markets in which the firm operates. For many risk categories, internal models are based on highly complex stochastic processes with substantial data and processing requirements. These demand specialist skills to specify and implement, and therefore require substantial investment.

It is permissible for firms to adopt a hybrid ('partial internal model') approach. The modular structure of risk categories allows firms to design and implement internal model solutions for certain categories of business activity. Companies can apply the standard model to categories where the burden of internal model implementation is too high or where no advantage in capital efficiency is seen. The QIS5 exercise revealed that firms using a hybrid approach used internal models to calculate between 50% and 100% of the SCR. The weighted average was 82% of the SCR calculated using internal models.

Finally, firms are allowed to use the standard model to apply Undertaking Specific Parameters (USPs) to certain of the risk sub-modules to reflect particular business characteristics. The scope of USPs is tightly prescribed and, in general, USPs are expected to have a minor impact on overall solvency calculations.

National regulators are responsible for validating and approving firms' internal model methodologies. This is managed through the **Internal Model Application Process (IMAP).**

Pillar II

Pillar II defines requirements for a firm's governance, with a specific focus on:

- Risk management
- Internal processes and controls
- Key functions, such as compliance, audit and actuarial
- Capital management

The aim of Pillar II is to **embed sound risk governance practices at all levels of the insurance firm.** As many of the survey participants confirmed, many components of the target governance structure were already in place. However, Solvency II demands a greater level of formalisation to ensure that the framework is robust. Several firms noted that the visibility of risk management processes at executive level has dramatically increased, reflecting the **emphasis on senior accountability for the implementation and application of sound governance.**

A key component of a Pillar II-compliant governance framework is the **Own Risk and Solvency Assessment (ORSA).** The ORSA is a forward-looking analysis of a firm's solvency requirements, supplementing the snapshot of current solvency required by Pillar I. The high-level scope of the ORSA is set out in Article 45 of the Level 1 directive, which requires the following:

- Forecast compliance with Pillar I capital requirements in the context of the firm's business strategy and risk profile
- Analysis of discrepancies between the firm's risk profile and the assumptions embedded in the Pillar I solvency calculation
- ORSA to be an integral part of the firm's business strategy and management
- ORSA results to be reported to the supervisor as part of overall monitoring process

The ORSA requires firms to make a detailed documented analysis of their business strategy, risk appetite and corresponding capital requirements, in order to demonstrate that risk governance is adequately embedded in the firm's strategy and processes. The ORSA reports the firm's Pillar I risk and solvency calculations, and records the alignment of the firm's risk profile with the assumptions embedded in Pillar I calculations underpinning the SCR. The **ORSA should therefore be a living document that forms a key part of the firm's business strategy development.**

As well as its role as a strategic management tool, the ORSA must also be provided to the supervisory authority, and forms part of the overall regulatory oversight process.

The survey suggests that there is a spectrum of approaches to the composition of the ORSA. Some firms use it as a repository for all risk and capital data, calculations and commentary. Others see ORSA as an 'executive summary' of the firm's risk governance activities.

One area where an increased focus on governance has required substantial effort is data management. Pillar I requirements are extremely demanding in terms of the data inputs to the capital calculations. Under Solvency II, **firms, their partners and suppliers have been forced to address extensive data quality issues and to establish rigorous ownership and governance measures to maintain the quality of enterprise data.**

Pillar III

Pillar III focuses on required standards for disclosure, both to supervisory authorities and to the market.

Two key reports have been specified. The **Solvency and Financial Condition Report (SFCR)** contains quantitative and qualitative analysis of the firm's financial position. The SFCR is produced annually and is a public document.

The **Regular Supervisory Report (RSR)** contains additional narrative analysis to the SFCR and completed Quantitative Reporting Templates (QRTs), which capture key data pertaining to the SCR, MCR, Technical Provisions, assets and own funds. The RSR is delivered to the regulator, and is not a public document. This RSR is compiled quarterly.

While the high-level reporting requirements have been outlined, Level 2 discussions are still underway and specific requirements remain subject to change. As a consequence, many firms have lowered the priority of Pillar III work, focusing on Pillar I and II which provide the data and analytical content to be rendered in Pillar III reports.

Several institutions noted that the Pillar III disclosure requirements are onerous in terms of the short timeframe after the end of the reporting period by which the document must be delivered.

A moving timeline

Looking forward, the key issues remain the timeliness with which regulators can deliver Level 3 guidelines and the definitive implementation date on which Solvency II will go live.

Alongside the Solvency II implementation process runs the Omnibus II directive, adopted by the European Commission in January 2011. Omnibus II amends the Solvency II directive to reflect changes in the legislative process implemented by the Lisbon Treaty. It also adds various transitional provisions and specifies the powers and responsibilities of the new European Supervisory Authorities, including EIOPA. The scope of Omnibus II has direct implications for the scheduling of the remaining phases of work to implement Solvency II. **Delays to the Omnibus II process will therefore push out the Solvency II deadline.**

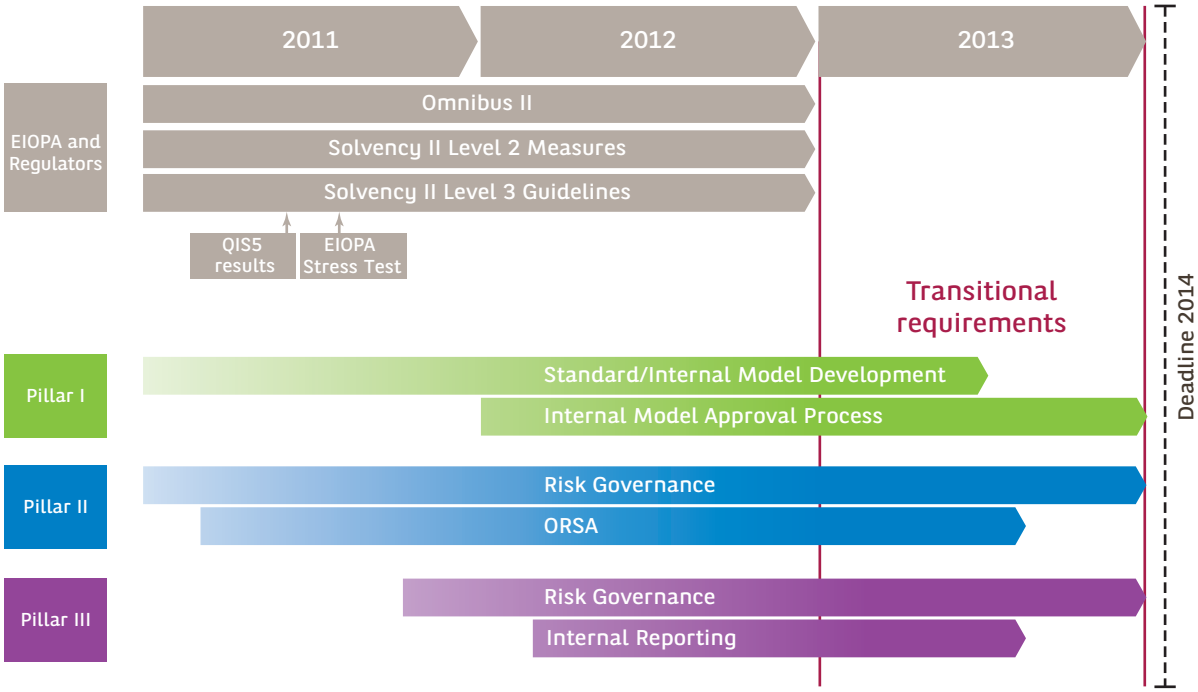
It is now confirmed that **Solvency II implementation will be delayed by a year to 1 January 2014.** However, uncertainty remains over what transitional requirements insurers will face. **Two alternative approaches are being considered by the regulatory authorities:**

(i) **'Bifurcation':** The 1 January 2013 target date for supervisory responsibilities would be maintained but the Solvency II deadline for insurance firms would be postponed to 1 January 2014. In the interim period, firms would continue to operate under their respective national supervisory regimes. This would allow supervisors and firms greater time to complete internal model approvals and other preparatory tasks.

(ii) **'Derogation':** Solvency II would be implemented as currently planned on 1 January 2013, but firms would not be required to disclose any capital shortfall relative to the SCR to the market until 1 January 2014. They would, however, be required to submit a plan for achieving SCR compliance by 1 January 2014 to their national supervisor.

Figure 4 opposite summarises the outstanding challenges facing regulators and insurance firms. In particular, we note the substantial effort required to deliver against Pillar II and III requirements throughout 2012 and 2013.

Figure 4: Solvency II implementation timeline and indicative progress



Source: BNP Paribas and InteDelta analysis

While the definitive path to Solvency II implementation remains uncertain, insurance firms should continue to press ahead with their preparations in anticipation of transitional supervisory requirements during 2013 and the 1 January 2014 implementation date itself.

Why another survey?

Why another survey?

A number of surveys have already been published on Solvency II. The fifth Quantitative Impact Survey (QIS5) carried out under the supervision of EIOPA went a long way to revealing preparedness for Pillar I requirements. What do we know about the level of preparation for the other Pillars? What topics and issues have not been properly discussed yet and what challenges remain?

Pillar I and QIS5 – lessons from an extensive impact survey

A major milestone in March 2011 was the publishing of the QIS5 results by EIOPA. EIOPA reported good participation. Almost 70% of insurance firms subject to the Solvency II regulations took part, and all 30 European Economic Area (EEA) countries were represented.

The objective of QIS5 was to test the impact of Solvency II in establishing capital adequacy for insurance firms across the European Union. Insurers themselves used QIS5 as a milestone in their overall Solvency II programmes and to assess the likely impact on their capital requirements under the new regime.

A summary of some of the key findings of QIS5 is provided on pages 24-25.

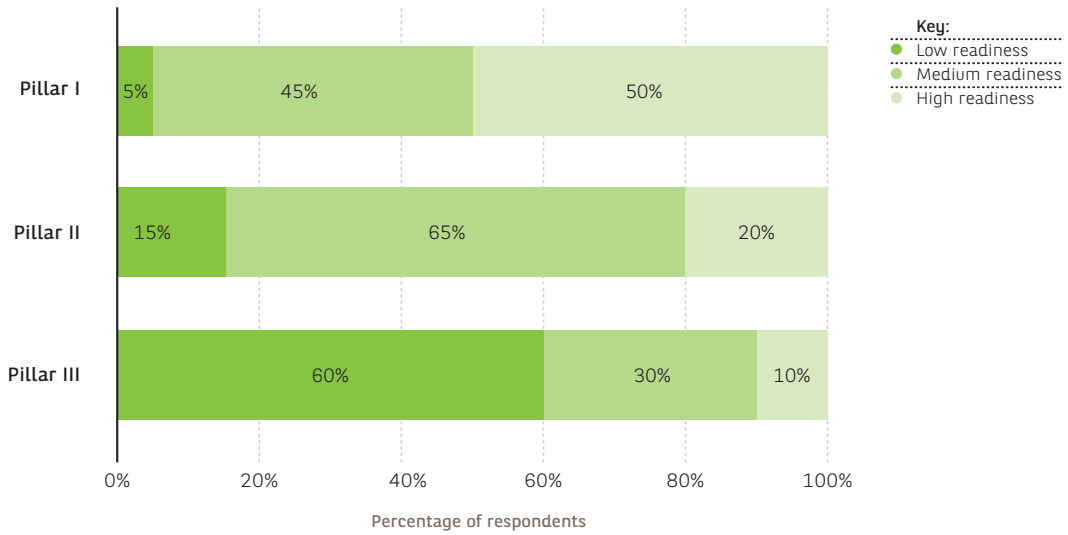
As part of its large information collection exercise, **QIS5 identified specific issues that were beyond its initial scope and which therefore could not be fully analysed. Our research has confirmed (Figure 5) this original insight in several ways:**

- The focus of the QIS5 exercise was Pillar I and most Solvency II programmes have deliberately prioritised Pillar I requirements as the foundation for regulatory compliance. Half of firms in our survey declared themselves ready to calculate the SCR on a regular basis, whereas a further 45% have made progress towards readiness, in many cases generating SCR analysis from their evolving internal models on a 'one-shot' basis as an interim step.
- **Many firms however noted that they were less far advanced in respect of Pillars II and III, and acknowledged that substantial work remained to be delivered.** Figure 5 indeed shows that 15% and 60% of respondents acknowledged low readiness for Pillar II and III respectively.
- The issue of developing appropriate risk management functions, systems or policies was seen as a critical step, especially as regulators will weight this aspect highly in the assessment process. In particular, **implementing look-through reporting is essential not just for Pillar I but also for Pillar III compliance.** Unfortunately, beyond calls for simplification, QIS5 could not discuss how insurance will practically achieve the approach.
- Data sourcing, and more generally **a sound data governance framework, is critical to successful implementation of Solvency II** as it underpins the objectives and quality of outputs from all three pillars.

- The Solvency II risk governance approach is regarded in many firms as 'evolutionary', but **substantially greater granularity of data and analysis and a considerably more robust control framework is required.**
- There is a **wide variance in scope of ORSA** from comprehensive data repository to executive summary of capital and risk governance process. Several firms have developed first iterations of ORSA but acknowledge that substantial work remains.
- Pillar III reporting requirements have been a low priority to date, as focus has been firmly on Pillar I. However, firms increasingly recognise that the Solvency II reporting requirements are extensive, and that the **mandated timeframes for producing reports will be challenging in view of internal and external data and analysis dependencies.**

Look-through reporting is the process whereby the underlying investments of a structured product or collective investment vehicle are exposed to the Solvency II model in respect of market risk, so that a full analysis of exposure to the various categories of assets can be computed. For example, a collective fund invested in government securities with full look-through would attract a modest capital charge commensurate with the underlying investments. However, if look-through is not provided, the fund would be categorised as a much riskier asset, and a substantially higher capital charge would be incurred. The process of sourcing the necessary data elements for underlying securities and derivatives positions to deliver the required look-through can be a complex challenge.

Figure 5: Assessment of survey participants' Solvency II readiness by Pillar



Source: BNP Paribas and InteDelta analysis

Since the publication of QIS5, firms have certainly continued to progress their preparation for Solvency II. At the same time, as anticipated by many industry experts, the implementation deadline has been postponed by an additional twelve months to 1 January 2014.

In this context, it was clear to the promoters of this survey that summer 2011 was the perfect time to ask a representative panel of insurance firms their views on how they are preparing for Pillars II and III. **Our aim is to establish those requirements that are proving most challenging to meet, whether in terms of scope, scale, complexity or difficulty of delivering full implementation.**

QIS5 analysis

In general, EIOPA's analysis of the aggregate QIS5 results suggests that overall capital levels are 'comfortable', with an aggregate surplus relative to SCR of approximately EUR 350 billion compared to the prevailing Solvency I surplus of approximately EUR 470 billion. The 12% decline in aggregate surplus reflects the increased capital requirement under Solvency II due to changes in the valuation of assets and the calculation of Technical Provisions.

On aggregate, 15% of participating firms did not cover the SCR and 5% did not meet the MCR, suggesting that some risk adjustment and/or capital raising (or regulatory intervention) will be necessary on Solvency II implementation. This view is reinforced by the results of the subsequent industry-wide stress test exercise, the results of which were published by EIOPA in July 2011.

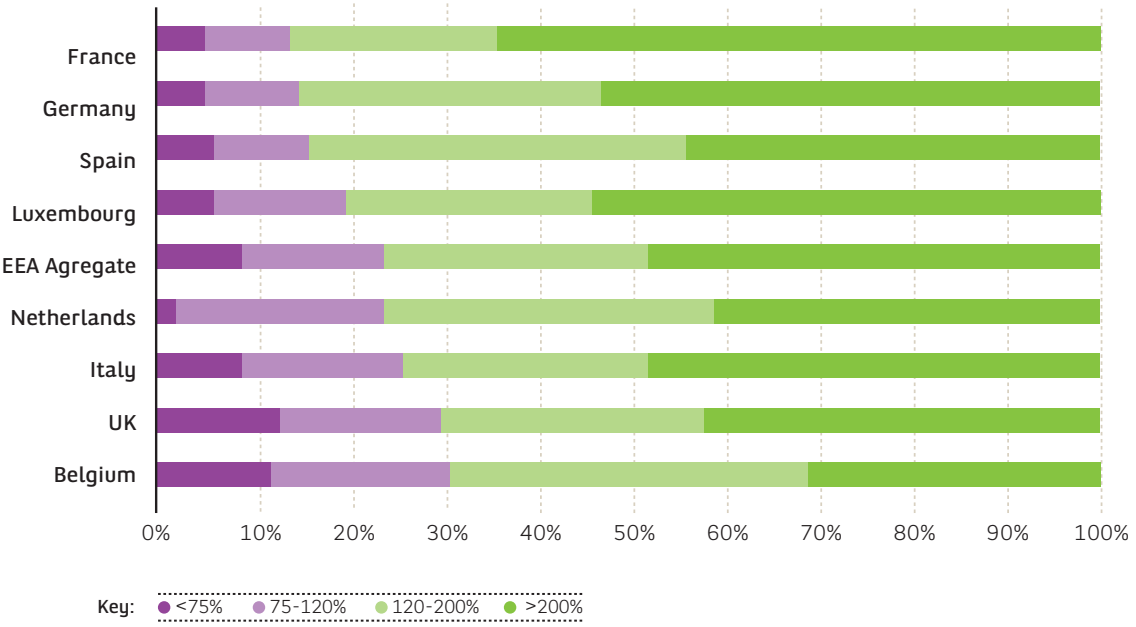
The stress test was applied to establish the impact on capital under the new Solvency II regime. The key risks threatening solvency identified included equity and sovereign debt market volatility and catastrophe risk, reflecting natural disasters. QIS5 highlighted the significance of market risk and insurance underwriting risk as the key contributors in firms' SCR calculations.

EIOPA reported that while the aggregate MCR coverage was 281% under the adverse scenario, 10% of participating insurers would see capital depleted to below the critical MCR level. This is double the failure rate established in the QIS5 exercise. Interestingly, EIOPA's analysis of the stress test results does not contain any reference to the SCR. This reinforces concerns that the overall solvency profile of the insurance industry is dangerously vulnerable to current volatile market conditions and that extensive regulatory intervention and capital-raising measures may become necessary.

This emphasises the importance to insurance firms of pressing ahead with Pillar II and III deliverables. The granularity and detail of the incremental information that can be generated by a comprehensive risk governance and reporting framework linked to upgraded Pillar I risk modelling capabilities will help firms tune their business strategies to adapt to evolving market challenges.

Looking beyond the aggregate results, the QIS5 exercise did expose significant variations in capital adequacy across the constituent countries, reflected in the capital surplus over the SCR measured under the Solvency II approach. The following chart illustrates distribution of SCR surpluses across firms for key markets within the EEA.

Figure 6: QIS5 reported SCR surplus by country



Source: EIOPA Report on the fifth Quantitative Impact Study (QIS5) for Solvency II

Based on the QIS5 results, French and German firms appear well placed in terms of capital adequacy, with fewer than 15% of firms reporting SCR surpluses of less than 120%. A greater proportion of firms in Belgium and the UK may need to take action to rebalance their product mix or raise capital, with over 30% of firms reporting an SCR surplus of less than 120%. Across the EEA, some 25% of firms reported an SCR surplus of less than 120%.

In general, the results achieved using internal model and standard model approaches were very similar for solo undertakings. **Groups appeared to benefit more from investment in internal models to the tune of a 20% reduction in the SCR compared with the requirement calculated using the standard model.** The responses to the survey suggest that this is due to the capital treatment of intra-group transactions and more accurate recognition of diversification benefits possible using an internal model. These are particularly evident in the results generated by Market and Non-Life Catastrophe risk modules. EIOPA did note that the results provided may not be fully indicative due to the relatively small sample of groups using internal models and the fact that many internal models are not finalised or approved.

Insurance firms participating in the survey reported generally encouraging results from the QIS5 exercise, both in terms of the capital requirements established and their state of preparedness for implementation. Several noted specific areas where calculations are seen as unduly complex, including:

- Counterparty Default Risk sub-module
- Application of illiquidity premiums in calculation of Technical Provisions
- Technical Provisions Risk Margin calculation
- Non-Life and Health Catastrophe modules
- Look-through' requirement for valuation of structured products and pooled investment funds

Insurance firms participating in the survey reported generally encouraging results from the QIS5 exercise, both in terms of the capital requirements established and their state of preparedness for implementation. In terms of general preparedness for the Solvency II deadline (1 January 2013 at the time the survey was conducted), the 'vast majority' of participants expected to be ready. Recent research however suggests that insurance firms have become less optimistic in recent months. However, several supervisors took a more cautious view, on the basis that some undertakings were yet to secure approval for their internal models.

What are our survey findings?

Survey findings

Discussing the practicalities of Pillar II and III was necessary, first to gauge firms' progress towards delivery of the Solvency II requirements and second, to identify the particular areas that are proving challenging and which threaten compliance. Our survey therefore followed the high-level structure of the regulations, focusing on the following key questions:

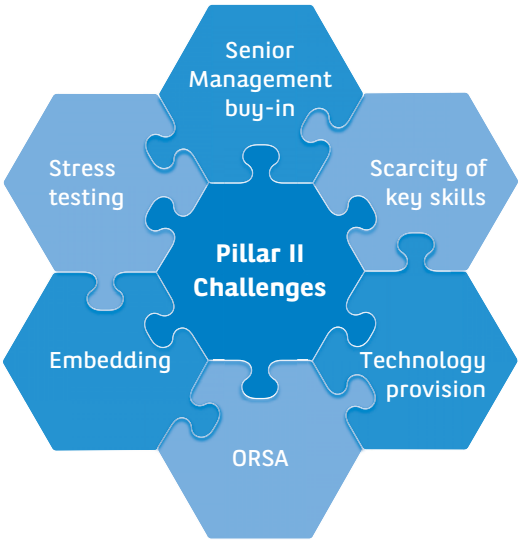
- How is the upgrading and embedding of a comprehensive risk governance process achieved under Pillar II, keeping in mind the weighting in regulation assessment?
- What are the respondents' views on the reporting and disclosure requirements of Pillar III?
- Do they have a data strategy in place that underpins their preparation?

Pillar II: Implementing and embedding risk governance

In this section of the survey, participants were asked how they had approached Pillar II requirements for a robust risk governance framework. The survey also explored how firms had approached the challenge of compiling the Own Risk and Solvency Assessment (ORSA) documentation, and discussed changes to firms' approaches to stress and scenario testing under Solvency II.

Our research identified six main challenges related to Pillar II implementation. Their relative importance varies from one respondent to the other which makes it difficult to quantify. These challenges however have a commonality to all survey participants and illustrate what it takes to implement and embed risk governance in their organisation.

Figure 7: Key Pillar II challenges reported by survey participants



- ✓ **BUY-IN:** Senior management engagement is crucial to deliver risk governance
- ✓ **SCARCITY:** Key actuarial, data analysis and programme management skills are at a premium
- ✓ **TECHNOLOGY:** In many cases, current technology cannot adapt readily to support extended governance requirements
- ✓ **ORSA:** Substantial effort required to assemble data and analytical content and maintain as living document
- ✓ **EMBEDDING:** Need to ensure that risk governance is fully implemented in day-to-day business processes at all levels
- ✓ **STRESS TESTING:** Extension and consolidation of stress testing activities

Source: BNP Paribas and InteDelta analysis

Risk governance

All of the respondents emphasised the commitment and effort that has been required to specify and implement the risk governance framework required to meet Pillar II requirements. Echoing the discussion of internal model requirements, several insurers noted that they had built on existing risk management processes, but that substantial extensions of scope and enhancements of process had been necessary. One respondent described a 'root-and-branch' overhaul of risk governance to instil risk culture at all levels of the organisation. Another noted that, historically, risk management activities had been carried out in a fragmented manner within business units. **Solvency II is the latest stage of a process whereby risk governance has been elevated from individual business units to a company-wide activity.**

In general though, the approach adopted has been evolutionary: the formalisation of existing practices and the alignment of previously fragmented risk controls into a coherent, firm-wide framework. Much of the effort applied to Pillar II activities has therefore focused on the validation and documentation of procedures and responsibilities, and the overhaul of the terms of reference of the various risk committees.

One participant did point to the risk of 'over-formalisation', leading to an unnecessary burden of bureaucratic process. The acid test is seen as the ability of the firm to 'embed' the newly-extended risk framework into the day-to-day business activities of the firm.

One effect of Solvency II noted by most of our survey participants is substantially increased engagement on the part of senior management. Risk processes and granular business analytics have much higher visibility at senior management and board level than ever before. One respondent noted that the quarterly reporting delivered by the new Solvency II process has gained a very broad and senior audience. This has created a powerful incentive to ensure that the risk governance framework is sufficiently robust to deliver accurate and timely data.

A key objective of the risk governance framework is to ensure that the correct granularity of data is available in consistent form. One firm noted that risk management activities had historically been dispersed among the firm's various business operations. From a data and analytics perspective, the availability of data across the different silos of risk management was unbalanced. **While there was plenty of data available for the analysis of operational risk, market and liquidity risk were the preserve of specialists and were seen as black box processes.** As a consequence, results were not widely understood or disseminated. Effort has therefore been focused on applying governance and increasing transparency of risk processes across the board.

Another important aspect of risk governance is staffing, as key specialist resources continue to be scarce. In addition to internal model development, actuarial skills are also required to support aspects of the risk governance process. This applies in particular to the validation of the input parameters (insurance product mix versus liability) and assumptions that feed solvency calculations and stress tests. At the same, time skills on programme management are essential to draw together considerable parallel streams of work for internal models.

From a technology perspective, data analysis and programme management skills are at a premium. Several firms noted material dependency on external consultants and contractors. **Most see a step change in permanent resourcing requirements post-implementation**, to support the more rigorous risk-management approach required under Solvency II.

Own Risk and Solvency Assessment

The Own Risk and Solvency Assessment (ORSA) is the tangible representation a firm's approach to the Solvency II capital adequacy and risk governance framework. It is an aggregation and formalisation of data and risk analytics from across the firm in a consistent format. It sets out risk model results, projections and governance measures. It should fully capture the solvency and risk implications of the firm's business strategy, supplementing the one-year analysis of solvency performed under Pillar I with medium-term forecasts of capital position and risk appetite. This requires strategy to be set and regularly updated to take market developments into account. An example given was the impact of the UK's Retail Distribution Review (RDR) regulation on product distribution.

In general, there are three key aspects to the successful delivery of an ORSA. The first is **ownership**. Survey participants described the increase in senior management buy-in, and also the process of embedding ownership for specific aspects of risk governance to delegates at all levels of the organisation.

The second aspect is **process**, and in particular the methodology, systems and controls for the production of the ORSA. This includes the capture and validation of data and analysis, the monitoring of key upstream dependencies (most notably Pillar I processes) and related processes such as the preparation of SFCR and RSR documents under Pillar III.

Finally, ORSA content must be compiled as a **report** so that it can be integrated into the firm's business strategy and signed off by senior management for delivery to the supervisory authority.

The survey suggests that the scope and detailed understanding of firms' conception of the ORSA varies widely across the industry. Some firms regard the ORSA as a comprehensive repository of all available risk and capital data and analysis. Others regard it as more of an executive summary of risk and capital themes distilled for senior executive and stakeholder consumption. This divergence reflects the lack of prescription for the composition of the ORSA in the Solvency II directive.

One respondent described how the assumptions and forecasts reported in the ORSA will be used to support profitability analysis at brand and product level, and to assess the liquidity impact of business decisions. These are not new processes, but ORSA preparation has involved providing more extensive and detailed data, and a more consistent framework for evaluating alternative strategies.

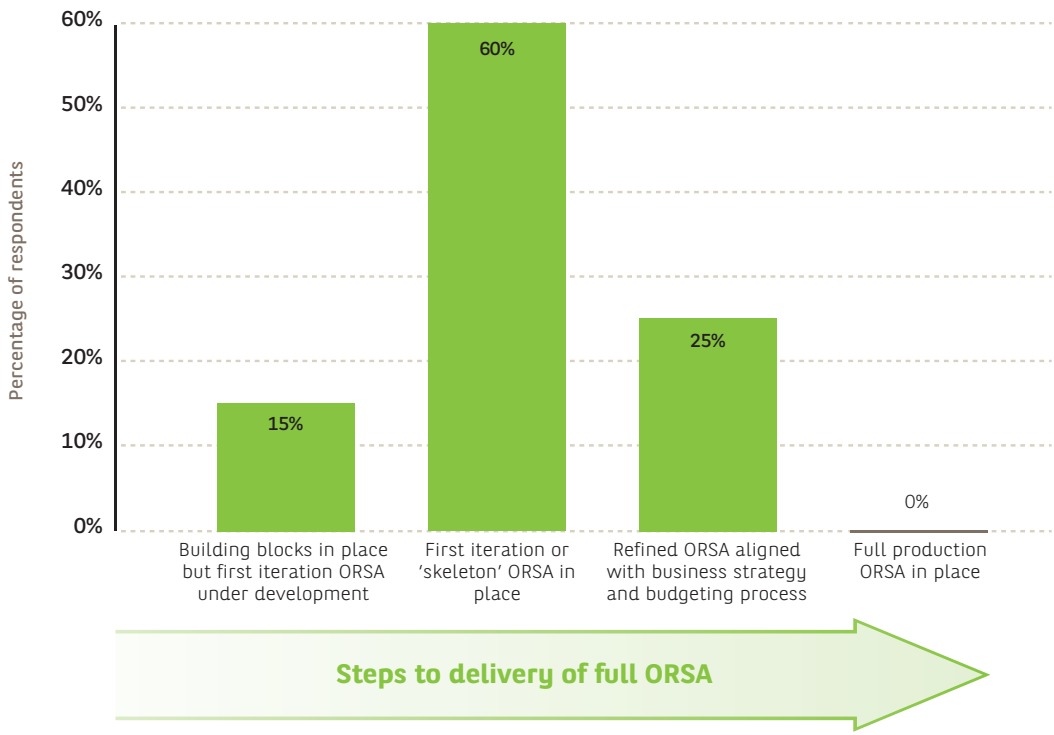
The ORSA requires substantial effort to implement, although it optimises the financial analysis and risk frameworks already in place. In the UK, the ORSA represents a logical development of disclosures required within the ICAS process and the Financial Services Authority's ARROW supervisory assessment methodology. However, the survey confirmed that the scope and granularity of quantitative analysis would be substantially greater to meet Pillar II requirements.

All of the firms surveyed still have work to do to complete the ORSA process. Only 25% of firms are at the stage of refining their first iteration ORSA and integrating it into their business strategy and budgeting processes.

The majority, 60%, have developed a first iteration ORSA. One such firm described the existing process as a 'skeleton' ORSA. Another described its ORSA as a first iteration for internal purposes only. A third referred to a 'dummy' ORSA to be refined in parallel with the 2012 budget process to begin embedding risk processes in business operations. One firm has taken the approach of developing 'local' ORSAs within its business units. These will be aggregated to deliver the full ORSA in 2012.

A 15% minority has yet to generate a first iteration ORSA, but all have started work to identify and assemble the key data and analytical building blocks.

Figure 8: ORSA progress



Source: BNP Paribas and InteDelta analysis

The QIS5 analysis cited ORSA as a key area where firms acknowledge that 'meaningful effort' is required to achieve readiness. One survey participant commented that while business owners understand broadly what is required of them, they **consistently underestimate the degree to which Solvency II processes such as ORSA will impact their day-to-day priorities and activities. The ORSA must be seen as a 'living document' that reflects the firm's strategy and operations.** These are not discrete functions but instead necessarily evolve over time and the ORSA must reflect this.

Stress testing approach

Stress- and scenario- testing is a key Pillar II function and input to the forward-looking ORSA. The majority of the firms surveyed already performed stress testing, either for internal purposes or as part of existing regulatory assessment.

All of our survey participants currently perform stress testing to some extent. Usually stress testing had been performed by various product groups and risk functions within firms for different purposes. However, several commented that while there was some commonality of approach, **stress testing activities were often fragmented and uncoordinated in terms of the sourcing of data and consistency of scenarios and assumptions.**

The current scope of work for these firms is therefore to establish a common approach to ensure that stress testing is controlled and documented appropriately and integrated into the wider risk management process.

In the same manner as Pillar I internal model development, stress testing generates extensive data requirements. It demands specialist modelling and actuarial resource for the specification, implementation and documentation of scenarios and the interpretation of results.

- *Solvency II requires that a firm implements a comprehensive risk governance structure and that risk management should be embedded in all aspects of the firm's business*
- *Most firms regard Pillar II requirements as an evolution of their existing risk management framework. But the scope and granularity of risk data and analysis required for the ORSA far exceeds what most firms currently produce*
- *Senior management engagement is seen as critical to embed the risk process throughout the firm*
- *Scarcity of specialist resources, be it actuarial or programme management skills, is a key constraint and has created dependency on external consultants and contractors*
- *Most firms acknowledge that substantial work remains to be done to deliver against Pillar II requirements. In particular, our survey revealed that 75% of firms are not yet in a position to deliver a comprehensive ORSA*
- *Stress and scenario testing is key to generating the forward-looking assessment of solvency that is demanded. These tools and process are often developed alongside Pillar I solvency calculation deliverables*

Pillar III: reporting requirements

To complete the survey of activities under the three Pillars of Solvency II, participants were asked to describe their progress towards mandated disclosure requirements set out in Pillar III. These include the Regulatory Supervisor Report and the Solvency and Financial Condition Report. The key challenges associated with these deliverables were examined. Participants were also asked to comment on internal demands for more detailed management information to take advantage of Pillar I and II investment.

Pillar III progress

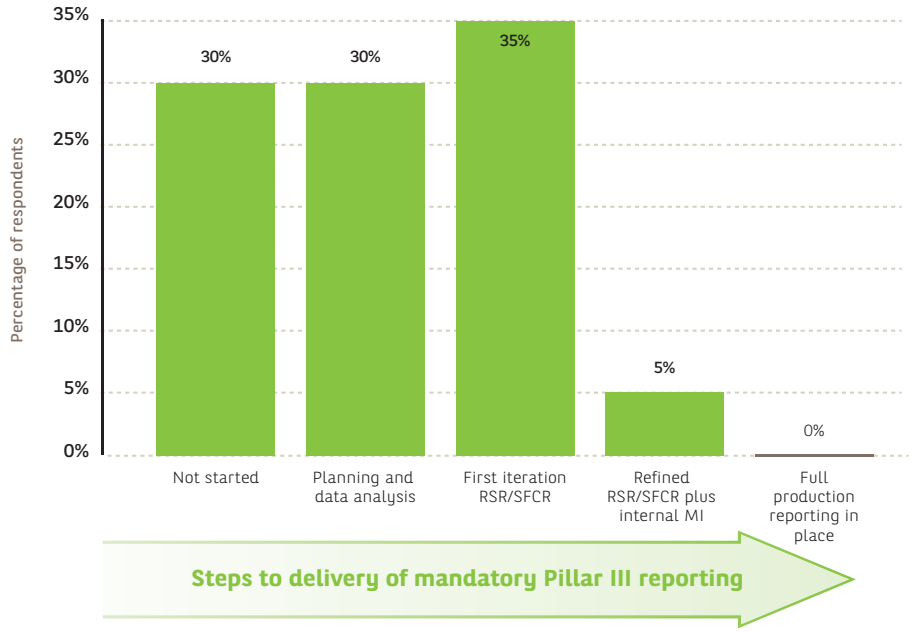
Pillar III focuses on disclosure and reporting, mandating specific report documentation such as the Regular Supervisory Report (RSR) and the Solvency and Financial Condition Report (SFCR).

The survey revealed that a large majority of insurance firms (80% of our survey) regard themselves as less advanced with respect to Pillar III objectives compared with Pillars I and II. The survey established two key reasons for the low priority of Pillar III activities to date:

- Regulatory requirements remain subject to change, creating uncertainty
- Reporting is the final process of the overall Solvency II process. The content to be rendered in the mandated reports and incremental internal management reporting is therefore dependent on the data and analysis delivered through Pillar I and II workstreams.

Our survey revealed that 60% of firms have either not started work on Pillar III or are at the initial planning and data analysis stage. A further 35% have created 'first iterations' of the RSR and SFCR. Only a small minority, 5%, has refined such first iterations and begun to deliver against internal requirements for extended management information to support business strategy development and operations.

Figure 9: Pillar III reporting progress



Source: BNP Paribas and InteDelta analysis

For example, one firm stated that it had only focused on Pillar III requirements from mid-2011, having prioritised internal model development and data governance. Several other firms reported variations on this theme, one noting that the reporting stream can now leverage much of the data analysis work carried out by Pillar I Internal Model Approval Process (IMAP) teams.

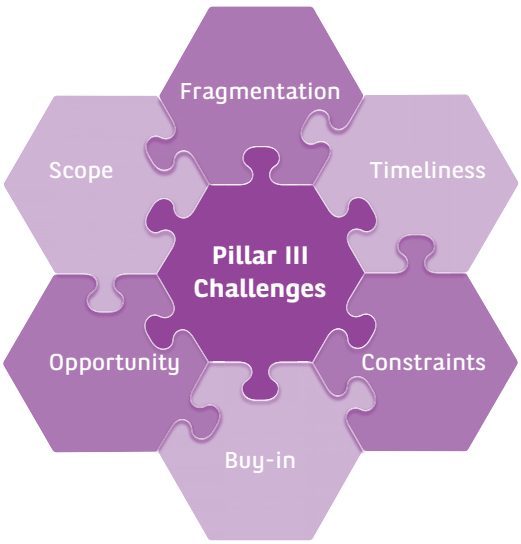
Pillar III requirements

Most of the firms surveyed were sanguine about their ability to meet all mandated reporting requirements subject to the achievement of their Pillar I and Pillar II objectives. But there are specific Pillar III requirements that are challenging. Several participants referred to the need to accelerate generation of Solvency II quarterly reports. These must be compiled within 20 working days, a challenging target given the scope of data and analysis to be compiled. The burden of improving the efficiency with which data is aggregated and reports complied is not restricted to the insurer. Third-party providers of data, notably fund managers, will also have to expedite the supply of data to downstream Solvency II reporting processes.

Once again, **many of the firms are following an evolutionary approach,** leveraging existing reporting infrastructure to deliver against Solvency II requirements. One respondent insurer is currently evaluating its first iteration of the SFCR, which is essentially an upgraded version of legacy ICA reports. This firm has a sophisticated and substantially automated reporting framework aggregating to Group level, and so the key components are available to reuse for incremental Solvency II reporting requirements.

Aside from the mandated disclosures, many firms have sought to take advantage of the scope, granularity and consistency of data generated by their Pillar I and II work streams to upgrade their internal reporting capabilities. Management is therefore provided with standardised reports drawing on consolidated data sources and robust risk management processes. One participant noted that many of the enhanced reports feed into the evolving ORSA process.

Figure 10: Key Pillar III challenges reported by survey participants



- **SCOPE:** Extent of task to assemble and validate required data (often dependent on Pillar I/II work in progress)
- **FRAGMENTATION:** Consolidation and standardisation of reporting across the firm, including data, format, process and tools
- **TIMELINESS:** Ability to compile reports within prescribed window at period-end
- **CONSTRAINTS:** Evaluation of capacity of current reporting framework to support Pillar III requirements
- **BUY-IN:** Requirement for senior (CFO/CRO) management engagement and sign-off
- **OPPORTUNITY:** Enhancement of internal management information to support business strategy and operations

Source: BNP Paribas and InteDelta analysis

Pillar III requirements have been a particular challenge for those firms operating in Solvency II territory whose parent firms are not European and therefore not subject to the Solvency II regime. In our survey group, 10% of respondents had dependencies on ex-EU parents. In these cases, the European subsidiary had sufficient reporting capabilities to deliver the requisite data into its parent's financial reporting process. However, considerable effort has been required to implement a local reporting framework in order to meet financial and Solvency II reporting requirements on a standalone basis. The technology and operations overhead required to support these activities in Europe has therefore dramatically increased.

- *Our survey found that 60% of firms have yet to address Pillar III disclosure requirements in detail, focusing instead on Pillar I and II deliverables. This also reflects expectations that Pillar III requirements will continue to develop*
- *These firms expect Pillar III requirements to be relatively straightforward to deliver, as they plan to draw heavily on the data and analysis generated by Pillar I and II activities and on existing reporting infrastructure*
- *Several firms noted that the compilation of Pillar III reports within prescribed deadlines will be challenging because of the scope and volume of data and analytic inputs*
- *Disclosure requirements necessarily cascade down to third-party providers of data such as affiliate or external fund managers and asset servicing providers*
- *Many firms have taken advantage of the data remediation work required by Solvency II to enhance and extend their management reporting capabilities*
- *Reporting can be a very stiff challenge for firms that are subsidiaries of non-EEA parents, and which in some cases do not have their own standalone financial reporting infrastructure in place*
- *Given the scope of Pillar III requirements and the low relative prioritisation, there is substantial risk of non-compliance across the insurance industry*

Data strategy

Data is the foundation of Solvency II compliance. Participants were asked to discuss their approach to data for Solvency II, with particular emphasis on the management of data provided by third parties.

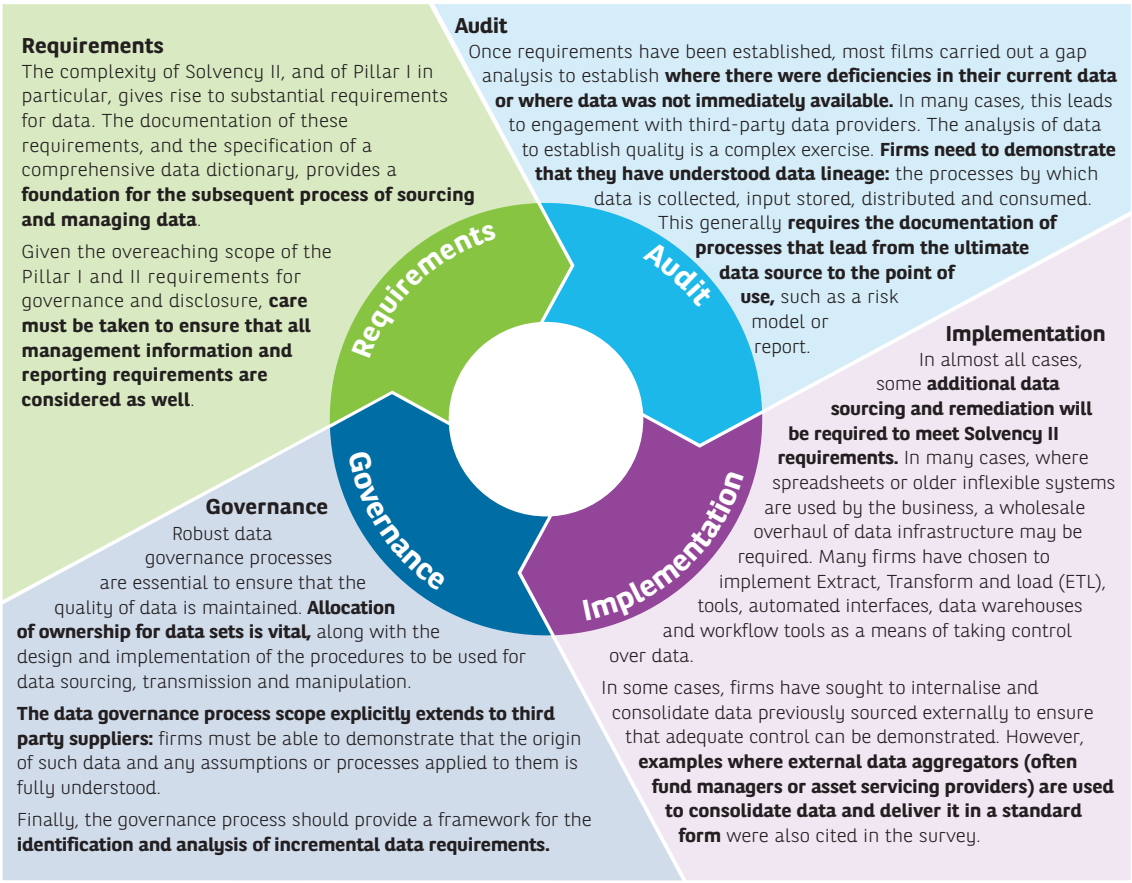
Data governance approach

Article 121(3) (Statistical Quality Standards) of the Level 1 Solvency II directive requires that **'Data used for the internal model shall be accurate, complete and appropriate. Insurance and reinsurance undertakings shall update the data sets used in the calculation of the probability distribution forecast at least annually.'**

Consistent with the wider theme of governance embedded in Solvency II, **insurance firms are required to implement a data quality management process to ensure that the data used in the calculation of capital requirements is 'accurate, complete and appropriate'.** This is both for preparation for the implementation of Solvency II and on an ongoing basis thereafter.

In practice, this requirement has led firms to adopt an **iterative four-stage process** as shown in Figure 11 below.

Figure 11: Data governance approach



Source: BNP Paribas and InteDelta analysis

Most of the firms surveyed regarded Solvency II as a driver for an enhancement of the existing data policy framework, with an emphasis on governance. However, all noted the scale of the task to identify data dispersed around the enterprise in databases and spreadsheets, and then to specify and impose controls for the collection, processing, retention and distribution of data to ensure its accuracy and completeness.

80% of firms in the survey explicitly acknowledged gaps in the data required to support internal model and other Solvency II requirements or deficiencies in their current data governance processes. Recognising the fundamental importance of good quality data to the success of the overall Solvency II process, almost all had established dedicated teams to focus on data quality and governance.

Even in those firms where the existing data management process was reckoned to be effective, Solvency II has provided an opportunity to understand the firm's data better and to establish a 'clean' data structure with appropriate formal control and ownership.

The findings of the survey therefore echo the FSA's view, published in its IMAP Thematic Review Findings in February 2011, that firms have 'comparatively more to do to achieve the likely Solvency II requirement' with respect to data management. A clear data management policy that articulates how internal model data parameters are validated is seen as a key component of a viable IMAP submission.

Data requirements for Solvency II

A substantial proportion of incremental Solvency II data requirements arise directly from the implementation of risk models under Pillar I. We find that a large majority of the institutions surveyed, and large cross-border firms in particular, expect to seek regulatory approval for full or partial internal models for the calculation of Solvency II capital requirements. The remainder of firms will achieve Solvency II compliance using the standard model.

Three main reasons were given by participants for pursuing internal model approval.

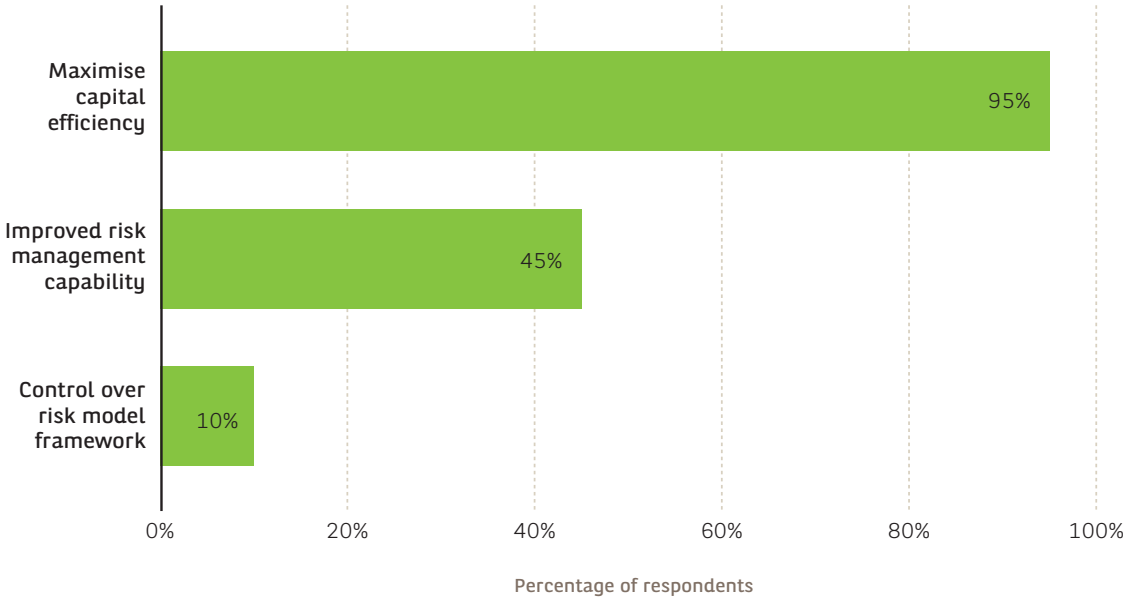
The first and most common reason, cited by 95% of respondents, is capital efficiency. Internal models better reflect each individual firm's business strategy and risk profile. Internal models can be specified to reflect this, and therefore avoid excessive capital requirements generated under the one-size-fits-all standard model approach.

The second reason, cited by 45% of respondents, is that investment in internal models is worthwhile in terms of the additional insight that can be achieved using such models, supporting the firm in evaluating its risk profile and taking strategic decisions.

A third reason, cited by 10% of respondents, is the desire to maximise control over their modelling framework. Firms relying on the standard model may be exposed to regulatory updates of aspects of the standard model.

The successful delivery of internal models to secure these benefits requires substantial investment in data. Several respondents concurred that the primary focus of technology investment and data governance activity was directed to ensure that the data supplied to the newly specified internal models was of adequate quality and documented to the standard required. It should be noted that adoption of the standard model approach may also generate challenging data requirements.

Figure 12: Motivation to invest in internal models

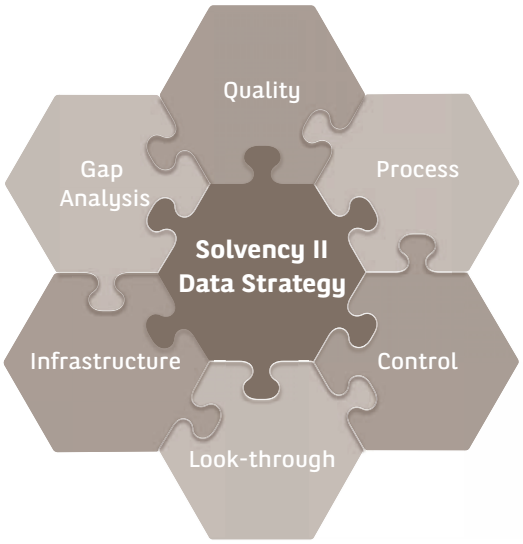


Source: BNP Paribas and InteDelta analysis

The main categories of data in focus for Solvency II include valuations, asset reference and pricing data and policyholder static data. Only 20% of the firms in the survey reported no areas where data was absent or substantially incomplete, but acknowledged that some deficiencies in ownership and governance needed to be addressed. An 80% majority of firms surveyed had identified data gaps, either where the required data was simply not available or where the quality and completeness of data could not be validated due to previously inadequate controls. In most cases, some data was stored and managed in spreadsheets which required a full audit and application of governance policy.

Once again, subsidiaries of non-European parents were faced with a particular challenge where data previously maintained by the parent was required to be replicated locally along with the associated data operations.

Figure 13: Key data strategy initiatives reported by surveyed insurance companies



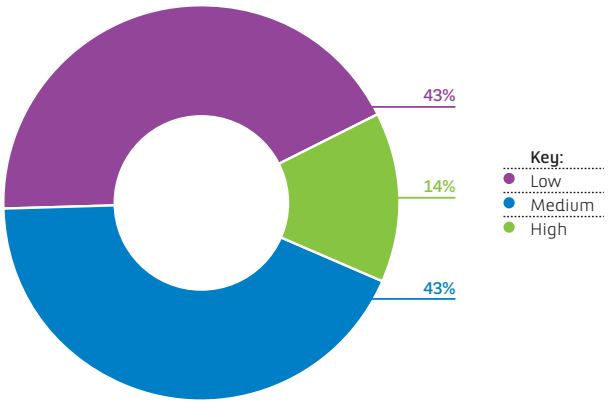
- ✓ **QUALITY:** Rigorous validation of data lineage, accuracy and consistency
- ✓ **GAP ANALYSIS:** Identification and mitigation of data gaps for enhanced risk models and reporting
- ✓ **PROCESS:** Enhancement or overhaul of data governance, with particular emphasis on ownership and audit points
- ✓ **CONTROL:** Focus on externally-sourced data to extend adequate control
- ✓ **LOOK-THROUGH:** Evaluate requirements for look-through into pooled fund valued position and security reference data
- ✓ **INFRASTRUCTURE:** Implementation of data warehouse and workflow tools to support target data governance process

Source: BNP Paribas and InteDelta analysis

External data considerations

The story was broadly similar for third-party data provision. The scope of the data audit necessarily extends to include all external providers to ensure that an adequate degree of control is exercised. **57% of the firms surveyed reported high or medium exposure to third-party data providers.**

Figure 14: Exposure to external data providers



Source: BNP Paribas and InteDelta analysis

Four principal categories of external data provider were identified by survey participants:

(i) Risk modelling service providers

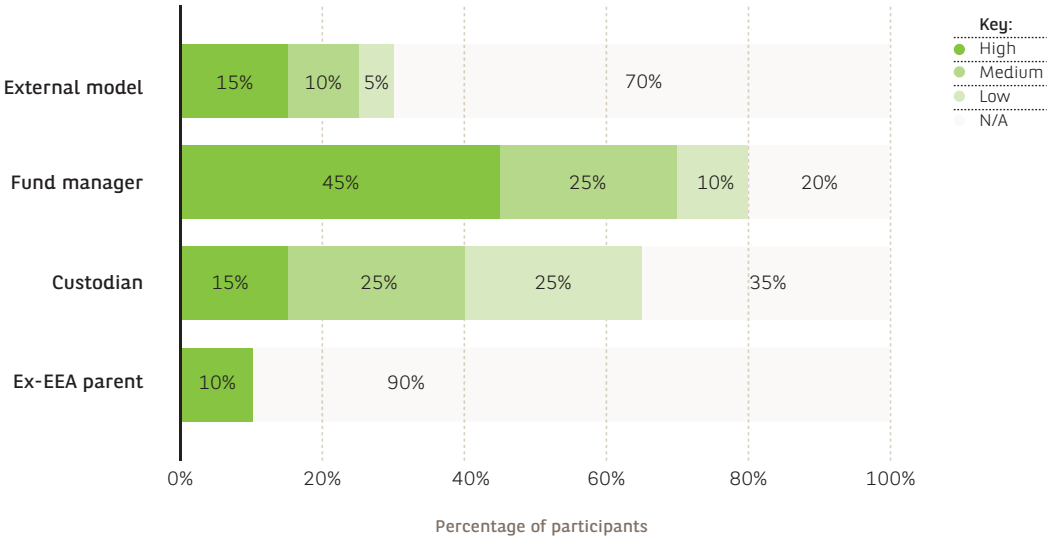
(ii) Fund data provided by affiliate and third party fund managers

(iii) Custodians

(iv) Ex-EEA parent companies

Figures 15a and 15b illustrate the survey participants' assessments of the relative criticality of each type of external data provider exposure for the two activities that appear most dependent on external parties; data sourcing and risk reporting.

Figure 15a: Criticality of external dependencies – data sourcing



Source: BNP Paribas and InteDelta analysis

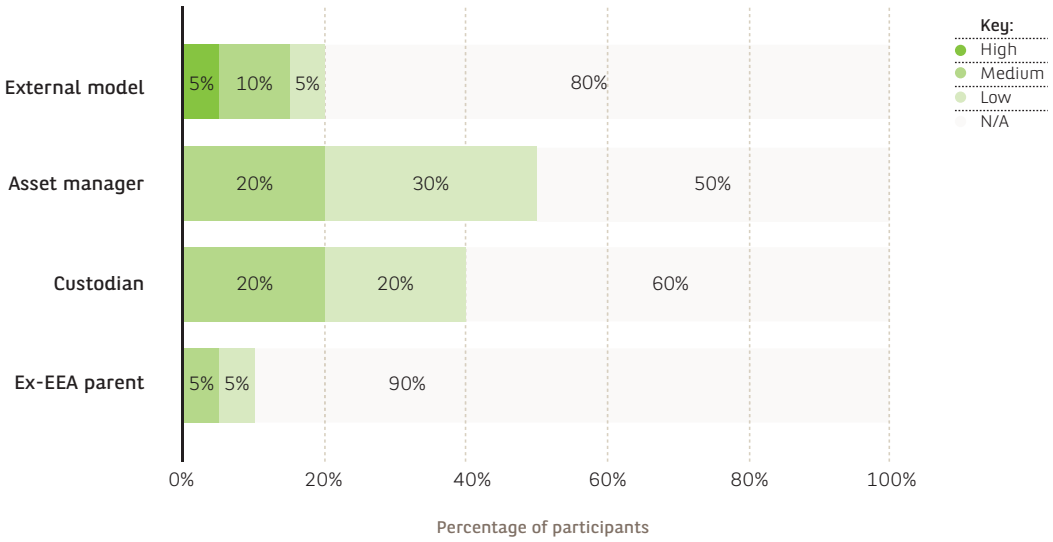
Where a firm uses third-party risk models as part of its overall internal model approach, the model service providers represent a high-criticality exposure for data sourcing. Only 30% of the institutions surveyed reported use of third-party components within their internal models. But half of these identified their third-party model providers as a high-criticality exposure and a further third identified their external model providers as a medium-criticality exposure. QIS5 analysis clearly demonstrates that, as the deadline for compliance approaches, supervisors expect third-party models to figure prominently in many IMAP submissions.

In 80% of cases, the principal external data sourcing dependency identified was associated with affiliate or third-party fund managers. 45% of all survey respondents identified this as a high-criticality exposure. This reflects the importance to the Solvency II process of the accurate and timely valuation of assets. One respondent noted that at least one large fund manager has established a data aggregation capability, sourcing data from other fund managers and compiling a single set of consolidated valuation statements.

In general, participants regarded their data sourcing exposure to custodians or other asset-servicing providers as less critical than affiliate or third-party fund managers. However, many of these institutions have outsourced middle and back office functions. The insurance firm is therefore two steps removed from critical custodial and fund accounting functions. This emphasises the challenge facing insurance firms in extending the reach of their risk governance processes to cover all external service providers.

Finally, for the 10% subset of institutions in the survey that are subsidiaries of non-EEA parents, the ability to source asset and liability data from the parent is seen as a critical dependency, particularly if the subsidiary has not maintained a full, independent financial reporting capability prior to Solvency II.

Figure 15b: Criticality of external dependencies – risk reporting



Source: BNP Paribas and InteDelta analysis

The risk reporting function was generally regarded as less critically exposed to external providers than data sourcing. This reflects the fact that the vast majority of risk reporting is generated internally by insurance firms, albeit drawing on data that may be externally sourced. Once again, fund managers and custodians were most frequently cited as a dependency, by 50% and 40% of the survey group respectively. As before, where third-party models are used, the third-party model provider can represent a critical exposure for risk reporting as well as data sourcing.

Implications for fund managers

The composition of an insurance firm's assets is a key driver of capital requirements. Insurance firms that use either third-party or affiliate fund managers have addressed this challenge in two ways:

- To demand changes in the way that their assets are invested to manage the associated capital requirements
- To focus on the accuracy and granularity of asset and valuation data provided by their fund managers to ensure that undue capital penalties are not incurred

A good example of the increased granularity of reporting required by insurers of their fund managers is the requirement for look-through reporting. The scope of data required under look-through reporting requirements is not immaterial. From a Pillar I perspective, a fund manager should provide full look-through to the underlying securities and derivatives positions, with all of the same data attributes that are provided for segregated assets. **One fund manager quoted a requirement for 125 data attributes required per position in a collective fund.**

There are also commercial objections to look-through reporting. In order to comply with disclosure requirements, if an asset manager is required to disclose detailed position-level data to an insurance company that holds units in a pooled fund, the asset manager must make the same data available to all other unit holders at the same time. Asset managers are understandably reluctant to have to expose their investment strategy through disclosure of close-to-real-time position-level data in this way (although in reality the reporting of this information is likely to be more periodic at quarter end or at best monthly).

The findings of the QIS5 exercise noted the demand for simplification of look-through reporting to ease this burden. For example, a partial look-through to a fund's asset allocation (either actual or as specified in the investment mandate) and the use of approximations for aggregate ratings and durations could be used as an interim measure.

In general, fund managers will be required to provide look-through reporting for in-house collective funds. External (that is, external to the fund manager) funds are more challenging, as the fund manager itself would need to collect and aggregate underlying position data from the manager of the external fund. This is a complex task as there is no framework for consistent reporting of fund data, although there are nascent efforts to devise such a standardised reporting approach.

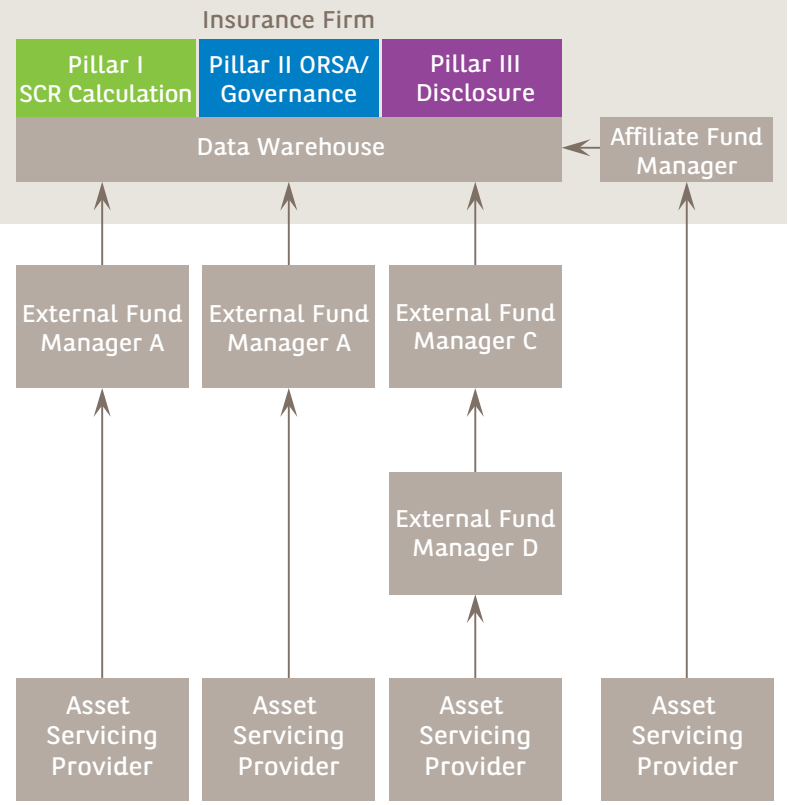
Evidence from conversations with fund management firms suggests that **while look-through reporting for in-house funds is seen as essential to retain insurance business, there is uncertainty over how to manage external fund data.** One fund manager referred to a push-back against the look-through requirement for such funds. If this is the case, it seems likely that insurers will require their fund managers to replace external fund investments, either with direct investments or in-house vehicles where look-through can be provided to limit exposure to additional capital penalties.

The hidden yet critical role of custodians

The survey responses, summarised in Figures 15a and 15b on pages 39 and 40, identified asset managers as the key external dependencies for provision of data for Solvency II analysis and reporting. But it is clear (Figure 16), that **actual dependency rests with asset-servicing providers and custodians who in turn provide managed services to asset managers.**

We therefore expect to see asset managers turn to their asset-servicing and custodian partners for assistance in sourcing and delivering the appropriate scope and granularity of fund data to their insurance clients. **Asset-servicing providers are well-placed to address the look-through reporting challenge by applying their scale and data management capacity.** This sentiment was also echoed by a recent report earlier in 2011 by Ernst & Young, *The impact of Solvency II on Asset Managers*. This concluded affected firms would or should leverage the securities services firms, in particular because the same asset managers will look to these organisations for support for other current regulatory priorities including the Alternative Investment Fund Manger Directive (AIFMD) and the Retail Distribution Review (RDR).

Figure 16: Information flows between stake holders



The insurance firm aggregates data from all internal and external sources in order to construct a complete view of its assets. This data is then consumed in Pillar I risk models, the ORSA process and Pillar III reporting procesesses. Pillar II also provides the governance framework for the management of data.
Data aggregation and governance are core Solvency II processes, and represent key dependencies for all other Solvency II deliverables.

Investment mandates are delegated to affiliate and/or external fund managers. In turn, fund managers provide detailed valued position and transaction data to the insurance firm. 'Look-through' reporting is required to expose the underlying securities and derivatives holdings of pooled vehicles and structured products.

Some external fund managers may invest in third-party pooled vehicles or structured products in order to implement the insurance mandate, The implementation of 'look-through' to the underlying holdings of such investments investments can be extremely challenging to implement, especially as multiple third-party fund managers may be involved, each of which provides data that varies in scope and format.

Asset servicing providers deliver outsourced services including custody, fund/investment accounting derivatives accounting FX and collateral management. They are the primary source of the valued positions and transactions data that is required by the insurance firm to support its Solvency II process.
Asset servicing firms have expertise in the aggregation and reporting of asset data, and are therefore well-placed to support insurance firms in meeting complex Solvency II data requirements.

Source: BNP Paribas and InteDelta analysis

- *A comprehensive and effective data strategy is widely regarded as the key foundation for achieving Solvency II compliance. Best practice is to have a dedicated data workstream within the overall Solvency II programme*
- *Pillar I internal model programmes generate significant data requirements from both internal and external sources. 80% of firms in our survey acknowledged gaps in the data required to support their internal models*
- *Pillar II mandates a robust data governance process that specifies data policies, ownership and controls to ensure that data quality is achieved and maintained. The same high-level of governance must be applied regardless of the source of data. 57% of firms in our survey reported high or medium exposure to third-party data providers, particularly fund managers, custodians and third-party model providers*
- *Both the QIS5 analysis and the UK Financial Services Authority's IMAP Thematic Review Findings explicitly identify data management as an area where firms have substantial work to do to demonstrate compliance with the required standards*
- *Most firms surveyed identified external asset valuation data as a challenging dependency. In almost all cases, this data is provided by affiliated or third-party fund managers. The requirement to provide 'look-through' reporting for structured products and pooled investment funds is a demanding challenge, and may influence investment behaviour*

Conclusion

A recap

Most firms have prioritised Pillar I deliverables. This is probably because the Pillar I requirements are the most tangible and certainly because the standard or internal risk models that must be specified, delivered and documented to perform Solvency II capital calculations underpin the remaining elements of the overall Solvency II process.

Pillar II requires that a firm implements a comprehensive risk governance structure and that risk management should be embedded in all aspects of the firm's business. This has proved to be a very substantial task, as the requirements for compliance are very prescriptive, and most firms acknowledge variability in data quality. Most firms regard Pillar II requirements as an evolution of their existing risk management framework. **But the scope and granularity of risk data and analysis required for the ORSA far exceeds what most firms currently generate.** Most of the firms surveyed acknowledged that substantial work remains to be done to deliver against Pillar II requirements. This sentiment was echoed by EIOPA in its QIS5 analysis.

Most firms have yet to address Pillar III disclosure requirements in detail, focusing instead on Pillar I and II deliverables. This also reflects expectations that Pillar III requirements will continue to develop. Most firms anticipate Pillar III requirements to be relatively straightforward to manufacture, where existing reporting platforms can be leveraged. These requirements draw heavily on the data and analysis generated by Pillar I and II activities, and the sheer scale of input led a number of participants to note the challenge of compiling Pillar III reports within the prescribed deadlines. **Given the scope of Pillar III requirements and the low relative prioritisation, there is a material risk of non-compliance within the industry.**

Key points to consider

Although the survey indicated that firms are, in general, well advanced in Pillar I preparation and are addressing Pillar II risk governance requirements, it is clear that substantial challenges remain. The key issues identified by our survey participants are:

- *Firms need to establish a fully-functional risk team to ensure that risk management is embedded at all levels of the organisation and in all day-to-day processes. This represents a major cultural change but the upside is seen in many firms as better business management*
- *Key specialist resources continue to be scarce across the board with a step change in permanent resourcing requirements post-implementation. Firms should pro-actively adapt their staffing strategy accordingly so as to support a long term and more rigorous risk management approach*
- *The risk governance process must be extended to ensure adequate control over data and analytics provided by third parties. Firms should adopt the best practice to have a dedicated data workstream within the overall Solvency II programme and build a clear view of critical external dependencies, be it for data sourcing or risk reporting*
- *Fund managers have a role to play in the provision of data into Solvency II risk models: 80% of survey respondents identified affiliated and third-party fund managers as key data dependencies. Particular challenges were noted in securing the required granularity of data for complex products and fund of funds. This in turn translates into requirements for risk modeling vendors and securities services providers to step up and address these data gaps*

The full live date for Solvency II implementation has been confirmed as 1 January 2014, in order to allow firms to complete their preparatory activities and regulators to process internal and standard model approvals. It is likely that additional transitional deadlines will be added to ensure that the momentum built up by firms is not lost.

The perceived delay to Solvency II implementation on the one hand represents a welcome relief to many firms. At the same time it represents a constraint on those who have been developing their platforms for the past several years, only to find the board has to continue steering a longer project than just governing the business using the new risk framework.

Timescales may look more realistic but also the transition arrangement enables the opportunity to consider alternative approaches to specific challenges that were beginning, in some cases, to appear intractable in the context of the previous 1 January 2013 deadline. **Despite this apparent breathing space, the large majority of the survey participants recognise that there is no room for complacency as much remains to be done.**

Solvency II

Glossary

European Insurance and Occupational Pensions Authority (EIOPA): EIOPA is the new European authority. It has replaced the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS). EIOPA will be given more power to enforce prudential standards and will play a more active role over co-ordination of group supervision activities. In the context of Solvency II, EIOPA is responsible for driving the development of level 2 Implementing Measures and Level 3 Guidelines and for the conduct of Quantitative Impact Surveys and Stress Test exercises.

Internal Model: Risk model developed by a firm to calculate its solvency capital requirement under Solvency II as an alternative to the prescribed standard model approach. Internal models are subject to approval by the firm's regulator before it can be used.

Minimum Capital Requirement (MCR): Key quantitative capital requirement defined in the Solvency II directive. The MCR is the lower of the two capital levels required in Solvency II and provides an approximate 1 in 6 year level of protection.

Omnibus II: The Omnibus II directive establishes the powers of the new European Regulatory Authorities, including EIOPA, and modifies the Solvency II implementation timeline.

Own Risk and Solvency Assessment (ORSA): The name given to the entirety of the processes and procedures employed by a (re)insurance undertaking to identify, assess, monitor, manage and report the short and long term risks it faces or may face and to determine the own funds necessary to ensure that the undertaking's overall solvency needs are met at all times.

Quantitative Impact Studies (QIS): The QIS exercises test the financial impact and suitability of proposed Solvency II requirements on firms. EIOPA published the results of the fifth QIS in March 2011.

Regular Supervisory Report (RSR): A report submitted solely to the supervisor and contains the information considered necessary for the purposes of supervision.

Solvency Capital Requirement (SCR): Key quantitative capital requirement defined in the Solvency II directive. The SCR is the higher of the two capital levels required in Solvency II and provides an approximate 1 in 200 year level of protection.

Solvency and Financial Condition Report (SFCR): This is the public disclosure report which is required to be published annually by all undertakings and will contain detailed quantitative and qualitative elements.

Standard Model: a non-entity specific risk-based mathematical formula used by insurers to calculate their Solvency Capital Requirement under Solvency II.

Technical Provisions (TP): Technical Provisions are the amount that an insurer needs to hold in order to meet its expected future obligations on insurance contracts.

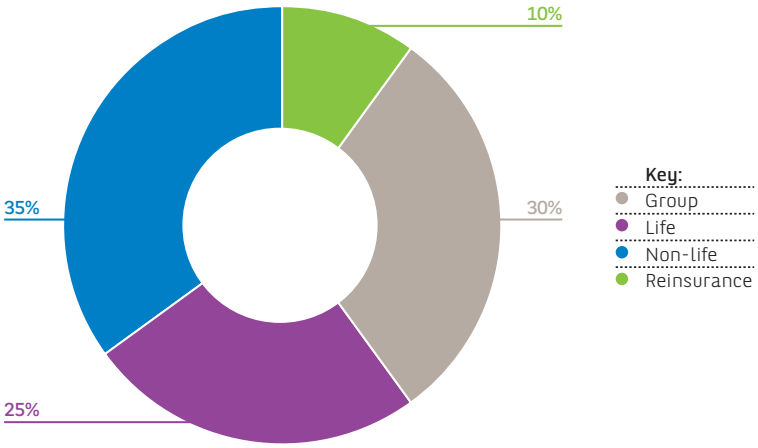
An extended Solvency II glossary is maintained by the European Commission, and can be accessed at: http://ec.europa.eu/internal_market/insurance/docs/solvency/impactassess/annex-c08d_en.pdf

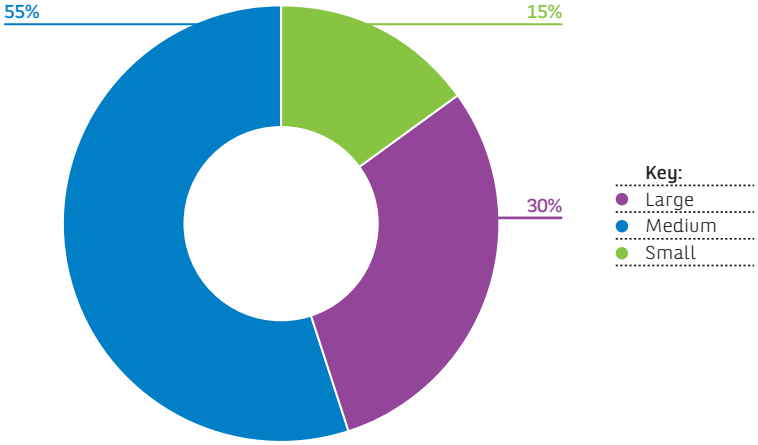
Appendix A: Survey methodology

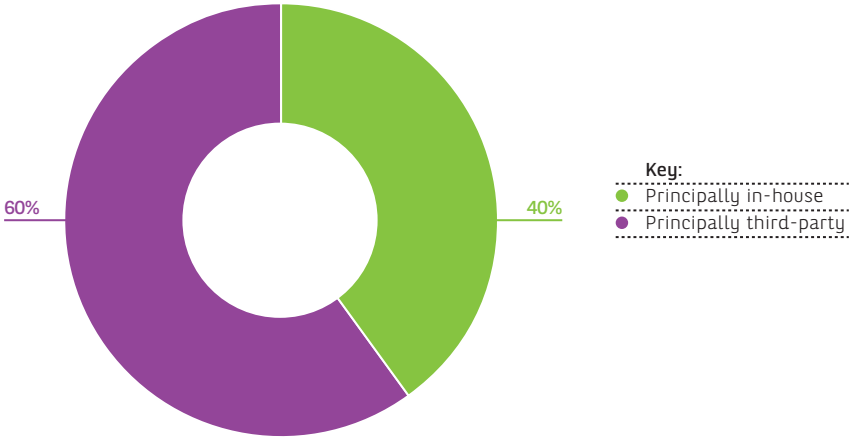
The market intelligence survey addressed the key elements of a comprehensive Solvency II implementation strategy. InteDelta spoke to senior Solvency II programme leaders and business managers at twenty insurance firms. The study was conducted in the period from June to September 2011. The survey findings were collected in a combination of face-to-face meetings and telephone interviews.

Insurance groups and Life and Non-life specialists of varying scale were represented in the survey group.

Figure 17: Survey participants by type, size and arrangements







Source: BNP Paribas and InteDelta analysis

* In categorising participants' size, we adopted the methodology prescribed by EIOPA in its Report on the fifth Quantitative Impact Study (QIS5) for Solvency II (p.22).

Note: all of the survey participants had taken part in QIS5 and described it as a very substantial exercise to support. In most cases, QIS5 was used as a checkpoint to validate Solvency II processes and data quality, to identify gaps and deficiencies for resolution and to establish readiness against a peer group benchmark.

About

InteDelta

InteDelta is a specialist business consulting firm focused on the measurement and management of risks faced by financial institutions. We apply deep subject matter expertise and a disciplined consulting approach to help our clients establish and meet their risk management objectives.

Our services include risk strategy development; policy and methodology review; market intelligence surveys and peer group benchmarking; organisational and business process design; technology solution evaluation and implementation; program management and regulatory change advice.

Our clients range from some of the world's largest banks, insurance firms and asset managers to medium-sized banks in developing markets, hedge funds and risk software vendors.

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About

BNP Paribas

The bank for a changing world

BNP Paribas is a leader in global banking and financial services and one of the world's strongest banks. The Group was named 'The best bank in Western Europe' by Global Finance (2011).

Present across Europe through all its business lines, the Group has four domestic retail banking markets in France, Italy, Belgium and Luxembourg It has one of the largest international networks with operations in more than 80 countries and 205,300 employees, including 162,500 in Europe, 15,200 in North America and 12,500 in Asia (30 June 2011).

BNP Paribas holds key positions in its three core businesses:

- Retail banking
- Corporate & Investment Banking
- Investment solutions

BNP Paribas Securities Services, a wholly-owned subsidiary of the BNP Paribas Group within the Investment solution division, is a leading global custodian and securities services provider.

Backed by the strength of an international universal bank, BNP Paribas Securities Services provides integrated solutions for all operators involved in the investment cycle: sell side, buy side and issuers. Having one of the industry's most comprehensive array of services and an on-the ground presence spanning all continents means we can meet and anticipate our clients' needs – wherever and whatever their specific activity.

Our network is one of the most extensive in the industry, covering over 100 markets, with our own offices in 32 countries across five continents. We partner with clients to help overcome complexity, while offering a one-stop-shop for all asset classes, both onshore and offshore, around the world. We service over 6,000 funds globally, have USD 6,975 billion of assets under custody and USD 1,244 billion under administration (30 June 2011).

Influencing and understanding market change across our network is at the heart of delivering the expertise and solutions our clients need as they face the challenges of a changing world.

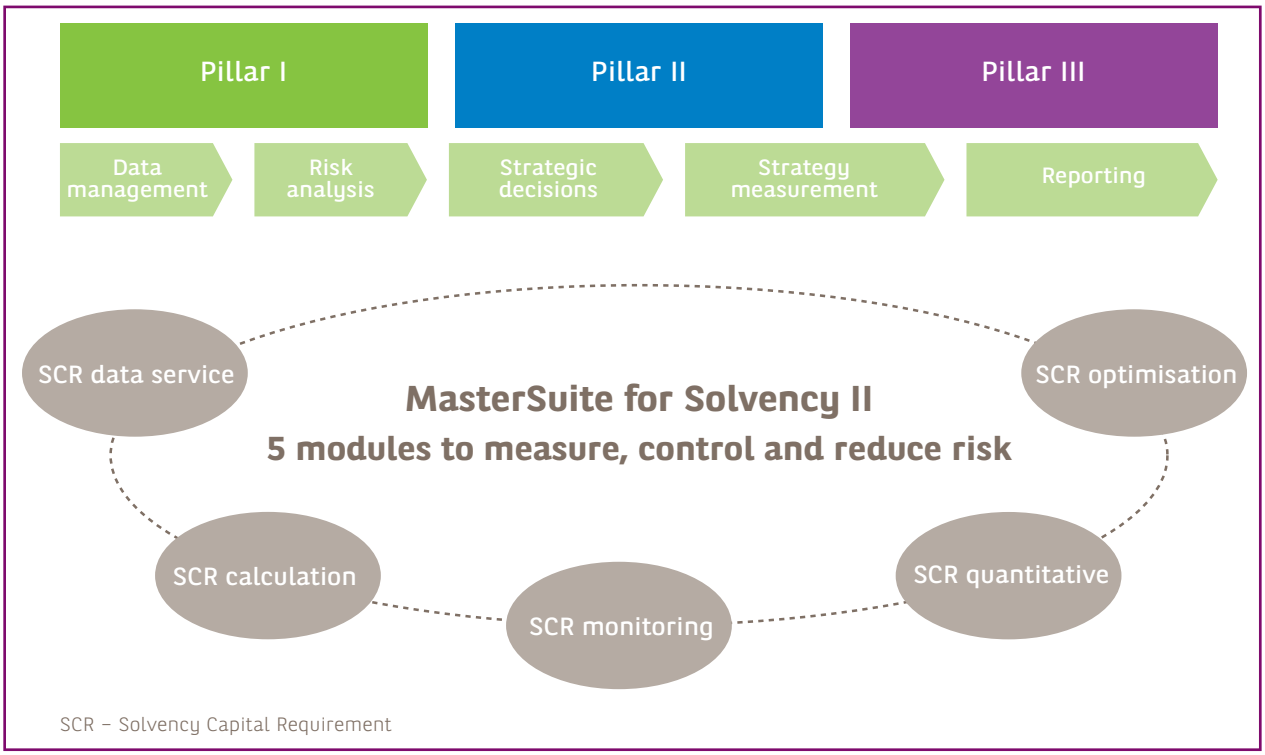
A complete solution for your Solvency II needs

Solvency II presents insurance industry participants with considerable challenges in evaluating and implementing the complex changes that will impact their procedures and systems in order to calculate, measure and report investments and liabilities with new solvency capital requirements.

We at BNP Paribas Securities Services have a strong understanding of working practices and regulatory environments regarding fund administration and compliance issues.

MasterSuite for Solvency II is the latest development within our full range of solutions for institutional investors, insurance companies, pension funds and asset managers. We help you to overcome the Solvency II challenge by supporting your transition to this new regulatory requirement – either directly with your in-house manager or with external asset managers.

Our solution offers five modules to measure, control and reduce risk:



A long term partner to the insurance industry

Our solutions are designed to respond to your needs for asset protection, investment control, risk monitoring and optimisation of returns.

We service over 100 insurance companies across 20 countries.

BNP Paribas Group strives to develop and maintain long-term relationships with insurance companies. Specialised entities continue to invest in creating an array of innovative solutions to meet Solvency II requirements and support your business strategy.

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