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# Solvency II

A closer look at the evolving process transforming the global insurance industry

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## Executive summary

The Solvency II Directive is a world-leading standard that requires insurers to focus on managing all of the risks facing their organization. It offers European insurers a real opportunity to improve their risk-adjusted performance and operational efficiency, which is likely to be good news for policyholders, for the insurance industry, and the European Union (EU) economy as a whole.

Solvency II is not only on the radar of insurance companies in the EU, but also on those across the globe. The world is watching to see how the EU transforms its insurance industry and implements risk-based improvements to protect policyholders. At the same time, shareholders are also likely to reap benefits. And while it may seem far enough away, much still needs to be accomplished to accommodate the vast changes and potential impact to insurance companies, governments, and rating agencies within the EU and beyond.

Solvency II is very much a living process and continues to evolve through valuable consultation, feedback, and cooperation between the insurance industry and regulatory bodies. As the process unfolds, unforeseen challenges and opportunities encourage progress and enable adjustments toward achieving the EU's goals for the insurance industry. The framework will follow the Basel Accord approach, with a three-pillar structure, which will bring insurance and reinsurance regulation more in line with regulation applied to the banking community. Therefore, it is not surprising that the insurance industry is diligently preparing for Solvency II and learning along the way by following a more comprehensive, communicative, and structured path towards implementation.

So, since this is a European initiative, why should the U.S. insurance industry concern itself with Solvency II? U.S. companies will feel both direct and indirect impacts resulting from Solvency II (see *sidebar on next page*) and a lack of awareness could result in competitive disadvantages in the future.

This paper provides an overview of the Solvency II regime, its likely impact on the insurance market, and the potential implications on the U.S. and global insurance industry. In particular, this paper aims to:

- Identify the goals and objectives of the Solvency II Directive
- Provide an outline of the key building blocks
- Recognize the strategic benefits and implications that Solvency II will have for the global insurance industry as well as the direct impact to the U.S. insurance industry
- Understand the complex processes involved and the progress being made to date.

## Why should the U.S. insurance industry care about Solvency II?

Although Solvency II is an EU regulatory initiative, it will have both direct and indirect implications to the U.S. insurance industry. In the absence of an equivalent regime, group supervision holds the greatest direct impact for the United States, group supervision, and related third-country undertakings (these requirements are discussed further later in this paper). U.S. companies are likely to also face indirect demands from a change in market competition, rating agencies, and regulators.

**U.S. subsidiaries of an EU parent:** U.S. companies that are subsidiaries of a European parent will need to be consolidated with their European counterparts and the Solvency II groups requirements applied to the consolidated position of the overall European parent. “Major” (i.e., significant to the group) non-European subsidiaries will likely need to incorporate significant aspects of the Solvency II requirements locally. This is likely to have significant risk and capital management, data, and system implications.

**EU subsidiaries of a U.S. parent:** Under Solvency II, upward group supervision is triggered by the existence of an EU insurance company being owned by a non-EU parent company or group of companies. The intent of Solvency II’s group supervision requirements is to protect the policyholders of European insurers from the risks associated with the wider group of which they are part, either due to the level of group connectivity or due to insufficient coverage of the group’s insurance risks with readily transferable capital.

**Competitive environment:** U.S. companies that implement Solvency II with an eye to integrating risk, finance, and strategy will be in a stronger position to react to economic changes with mitigation strategies. As a result, the increased adoption of Solvency II by international insurance companies could make the competitors smarter, and U.S. companies will have to consider adopting sophisticated risk and performance management in order to keep pace.

Achieving growth in the U.S. market is certainly at the top of the corporate agenda for many companies. Today, growth is difficult to achieve in the more mature insurance markets and products. Solvency II methods may actually start to move into pricing and product innovation through changes in capital allocations which could ultimately change the competitive landscape. There is certainly speculation that such new views of optimal capital positions could result in increased M&A activity in the marketplace.

**Rating agencies:** Solvency II is driving some companies to build more robust capital models and imposes higher standards of corporate governance and risk management. Rating agencies are considering using these improved capital models to compare and assess companies across markets and are putting more value on better-structured corporate governance models and improved risk management. Some rating agencies are already moving towards using Solvency II to serve as a guide, as it imposes higher standards of corporate governance, risk management, and its integration with economic capital modeling. To the extent that Solvency II, in whole or in part, can be viewed as providing perspectives on “best practices,” companies should at a minimum gain familiarity with its provisions and the potential implications.

**Regulatory change:** The National Association of Insurance Commissioners’ (NAIC) program of Solvency Modernization, which began in mid-2008, has been challenged to improve the U.S. solvency framework. In doing so, it is looking at the new IAIS 2011 principles to which the NAIC signed up. There are significant linkages between IAIS principles and Solvency II, with NAIC specifically considering enhanced governance, Own Risk Solvency Assessment, Supervisory Colleges, sharing of information with other regulators, and recalibration of the Risk Based Capital (RBC) standards.



## What is Solvency II?

The Solvency II Directive is a new regulatory framework for the European insurance industry that adopts a more dynamic risk-based approach and implements a non-zero failure regime, i.e., there is a 0.5 percent probability of failure. One of the main aims of Solvency II is to contribute to the objectives of the EU Financial Services Action Plan (FSAP) by encouraging a deeper single insurance services market that enables EU companies to operate with a single license throughout member countries. It will do this by introducing a unified legal framework for prudential regulation for all insurance and reinsurance entities operating in the EU; the Directive will help maximize harmonization and will be consistent with the principles used in banking supervision. This new single market approach is based on economic principles that measure assets and liabilities to appropriately align insurers' risks with the capital they hold to safeguard policyholder.

Similar to the reasoning behind Basel II, the new framework is being implemented, in part, as a result of the previous market turmoil, which highlighted system weaknesses and renewed awareness over the need to modernize industry standards and improve risk management techniques. As a result, Solvency II sets out to establish its new set of capital requirements, valuation techniques, and governance and reporting standards to replace the existing and outdated Solvency I requirements. In particular, the new regime is intended to harmonize the regulations across the EU, replacing the piecemeal system under which different countries have implemented the Solvency I rules in different ways, particularly for group supervision, to a single unified regime.

In addition, changes to capital requirements will provide a better reflection of an insurer's individual risk profile and should encourage major insurers to develop their own internal models for setting the Solvency Capital Requirement (SCR), while many smaller companies are more likely to opt for the standard formula to calculate the SCR. This is likely to lead to a supervisory need for companies to show greater competency in risk assessments. The new system will also require a more unified approach for evaluating technical provisions.

# Solvency II time line

On April 22, 2009, the European Parliament approved the Solvency II framework directive, due to become effective January 1, 2013. The European Council announced this month, June 21, 2011, a proposal to delay implementation of Solvency II to January 1, 2014, subject to European Parliament approval. The European and local regulators' positions remain unclear, and it should be noted that there is no material change to the underlying principles to implementation requirements. We suspect firms will continue to push forward with implementation.

In summary, the regime intends to provide:

- Alignment of economic and regulatory capital including giving appropriate recognition to diversification benefits within companies and between subsidiaries
- Freedom for companies to choose their own risk profile and match it with an appropriate level of capital
- An early warning system for deterioration in solvency by active capital management
- By better aligning risk and capital management, encouraging an improvement in the identification of risks and their mitigation.

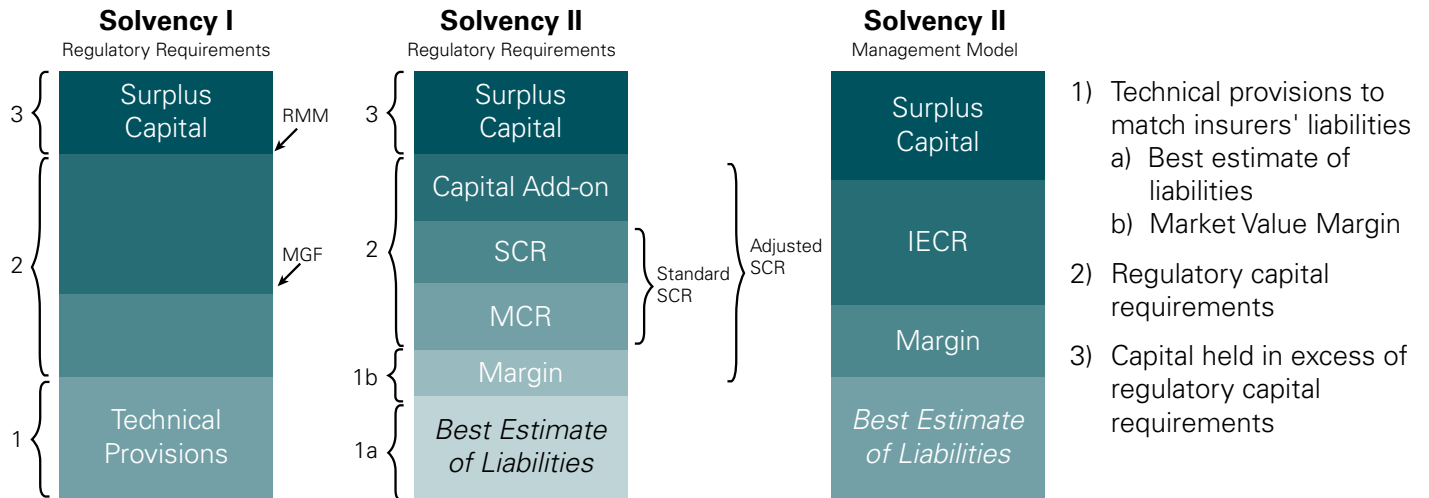
According to the EU Commission,<sup>1</sup> the Directive will “also streamline the way that insurance groups are supervised and recognize the economic reality of how groups operate. The new regime will strengthen the powers of the group supervisor, ensuring that groupwide risks are not overlooked, and demand greater cooperation between supervisors. Groups will be able to use groupwide models and take advantage of group diversification benefits.”

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<sup>1</sup> [http://ec.europa.eu/index\\_en.htm](http://ec.europa.eu/index_en.htm)

**Figure 1: Changing regulatory requirements**

The first two columns compare the basic framework designs of the Solvency I and Solvency II regimes in terms of the regulatory requirements. The third column depicts the economic capital model that a firm might use to run the business, which is known as the Internal Economic Capital Requirement (IECR). While surplus capital under Solvency I and Solvency II appears to be similar, the actual situation will vary from company to company, with some seeing more surplus capital under the new regime and some less.



**Minimum Capital Requirement (MCR)** – the minimum level of regulatory capital  
**Solvency Capital Requirement (SCR)** – the risk-based level of regulatory capital  
**Adjusted SCR** – SCR level which includes any supplementary capital requirement determined through the Pillar 2 Supervisory review  
**IECR** – management's internal estimate of capital need

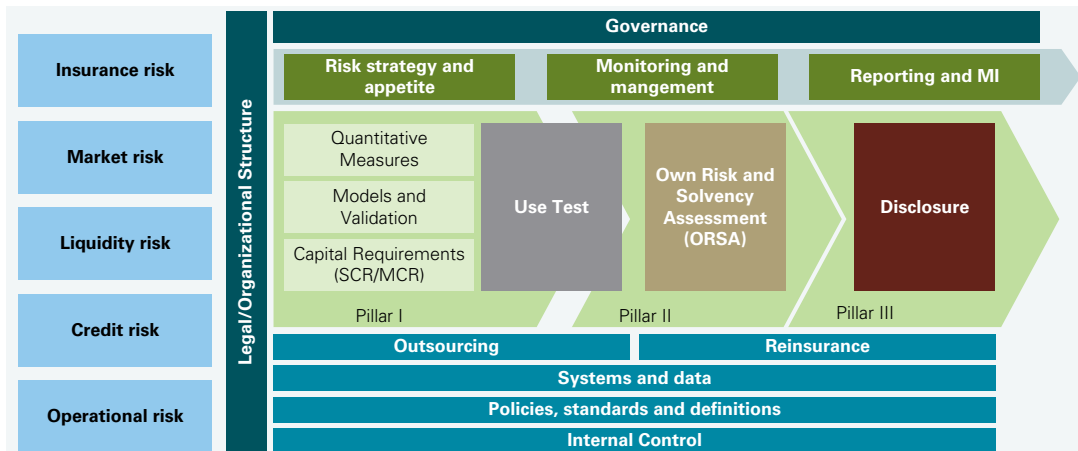




## Exploring the three pillars

The European Insurance and Occupational Pensions Authority (EIOPA) defines the three pillars as a way of grouping Solvency II requirements (the concept of pillars is not described in the Directive), which aim to promote capital adequacy, provide greater transparency in the decision-making process, and enhance the supervisory review process—all in the name of good risk management and policyholder protection. This is to be achieved through the implementation of a holistic approach that addresses better risk measurement and management, improves processes and controls, and institutes an enterprise-wide governance and control structure. While Solvency II is split into three pillars, Pillars 2 and 3 are often referred together as Pillar 5 due to the synergies between them.

**Figure 2: Solvency II framework**



A breakdown of the Solvency II Three Pillars framework into its constituent components, so as to identify Solvency II Target Operating Model. Each aspect of the Solvency II framework interacts and links to other areas. No components should be looked at in isolation.

As widely noted, Solvency II is similar in structure to the Basel II regulation for the banking industry. Both are based on three pillars that include quantitative and qualitative requirements and market discipline, and include specific components that focus on capital, risk, supervision, and disclosure. However, it is important to acknowledge that banking and insurance are distinctly different industries. Therefore, the implementation process for Solvency II cannot just mirror that of Basel II. Each represents a unique process unto itself as they deal with very different business models and different types of risk. While similarities surely exist, there are considerable differences in the requirements, application, and impact of each pillar.

This is particularly true in Pillar I, with Basel II applying separate models for investment, credit, and operational risks while Solvency II focuses on a risk-based portfolio analysis by applying an integrated approach, taking into account dependencies between risk categories. Furthermore, Basel II concentrates on the asset side, while Solvency II's assessment of capital adequacy applies economic principles on the total balance sheet, i.e., both the assets and liabilities.

**Pillar 1** covers all the quantitative requirements. This pillar aims to ensure firms are adequately capitalized with risk-based capital. All valuations in this pillar are to be done in a prudent and market-consistent manner. Companies may use either the Standard Formula approach or an internal model approach. The use of internal models will be subject to stringent standards and prior supervisory approval to enable a firm to calculate its regulatory capital requirements using its own internal model.

**Pillar 2** imposes higher standards of risk management and governance within a firm's organization. This pillar also gives supervisors greater powers to challenge their firms on risk management issues. It includes the Own Risk and Solvency Assessment (ORSA), which requires a firm to undertake its own forward-looking self-assessment of its risks, corresponding capital requirements, and adequacy of capital resources.

**Pillar 3** aims for greater levels of transparency for supervisors and the public. There is a private annual report to supervisors, and a public solvency and financial condition report that increases the level of disclosure required by firms. Any current returns will be completely replaced by reports containing core information that firms will have to make to the regulator on a quarterly and annual basis. This ensures that a firm's overall financial position is better represented and includes more up-to-date information.

# Comparing U.S. and EU systems

While both Solvency II and the RBC standards in the United States share the common goals of protecting policyholders and strengthening insurers through sound regulation, they are very different. Like Solvency II, the NAIC's Solvency Modernization Initiative (SMI) program is seeking to make enhancements to the current RBC regime. Some key differences include:

	<b>Current RBC Model</b>	<b>Solvency II Internal Model</b>
Methodology	Static factor model	Dynamic cash-flow model
Rule vs. principle based	Rules-based, except variable annuities	Principles-based
Total balance sheet approach	No	Yes
Definition based on market or book values	Book value	Market value, i.e., economic balance sheet created
Classification of available capital	No	Yes, economic value of assets and liabilities
Consideration of off-balance-sheet items	No	Yes
Time horizon	1 year	1 year, with planning cycle for ORSA
Risk measure	No risk measure	Value at risk/99.5 percent confidence level
Operational risk	Not explicitly (implicit via business risk)	Explicitly modeled
Catastrophe risk	Not specifically identified and considered in NAIC formula	An important shock component of the insurance risk component
Correlation among risk categories	Only considered correlation for credit risk and reserve risk; square root formula assumes other risk components are independent	Consider correlation within and across risk categories
Consideration of management risk	No, but future linkages between risk assessment and capital impact are being considered under the SMI initiative	Yes



## The devil is in the detail

### *Pillar 1: Demonstrating adequate financial resources*

Pillar 1 outlines the quantitative requirements and aims to ensure firms are adequately capitalized with risk-based capital. Under Solvency I, capital requirements are determined based on profit and loss account measures (premiums and claims). In contrast, Solvency II adopts a balance sheet focused approach, with the SCR consisting of a series of stresses against the key risks affecting all balance sheet components (assets, as well as insurance liabilities), together with a charge in respect of operational risk.

Technical provisions in respect of insurance liabilities will in the future be based on discounted best estimates of expected future cash flows, with assets and noninsurance liabilities included on a market consistent value. This comprises the economic balance sheet (EBS) against which the components are stressed to assess the SCR requirements. Importantly, Solvency II requires an assessment of the balance sheet's ability to withstand a 1-in-200-year event, so the EBS becomes the cornerstone of all Solvency II reporting.

Capital (termed Own Funds under Solvency II) starts with the excess of assets over liabilities as determined by the EBS. Qualifying subordinated debt is then added to this and the combined amount is known as Basic Own Funds (BOF). There is an ability to apply for regulatory approval to include some forms of off-balance-sheet finance as additional components of Own Funds (so-called Ancillary Own Funds (AOF)).

The whole amount is classified into tiers of Own Funds. Restrictions are applied to limit the extent to which the various components of Own Funds can be used to meet the capital requirements. The quantitative requirements under Pillar 1 can effectively be broken down into six components:

1. Valuation of assets and liabilities – In providing its advice to the European Commission regarding the valuation bases to apply to arrive at a market consistent valuation of assets and liabilities (other than technical provisions), the Committee of European Insurance and Occupational Pensions Supervisors (CEIOPS) has tried to harmonize its recommendations with existing fair value options within International Financial Reporting/ Accounting Standards (IFRS/IAS), as far as possible, in order to ensure that

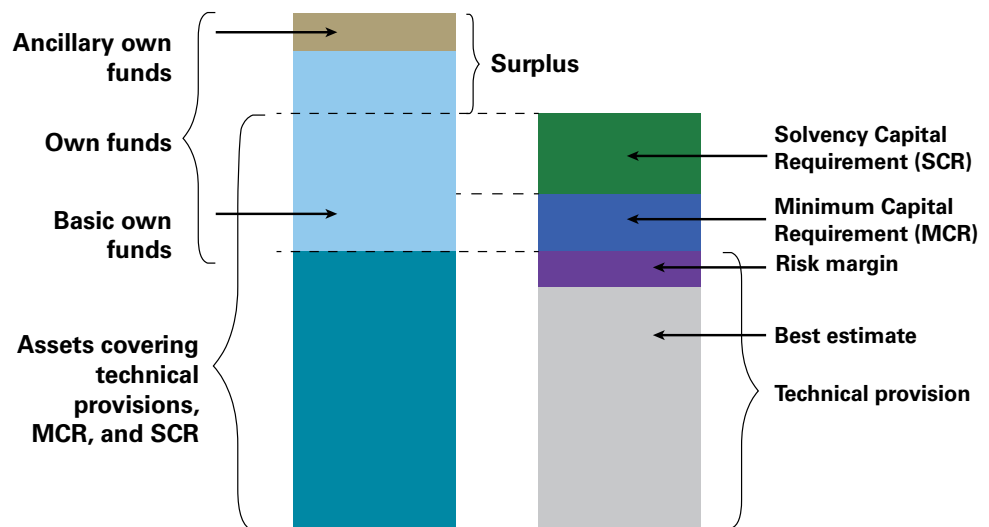
The whole amount is classified into tiers of Own Funds.

these items are valued consistently across all member states. Some of the valuation bases mark a significant departure from the current accounting valuations and/or the Solvency I treatment.

- 2.** Technical provisions – Under Solvency II, major changes are proposed to the valuation of technical provisions and the impact on reserving processes will be significant. The valuations will differ significantly from the current accounting valuation bases. The calculation of technical provisions will be based on their current exit value. They will be established as best estimate liabilities plus a risk margin, except in the case of hedgeable risks arising from (re)insurance obligations. With respect to hedgeable risks, the value of technical provisions is calculated directly, as a whole, and derived using the values of those financial instruments. With respect to nonhedgeable risks, the risk margin is calculated using the so-called cost-of-capital method. In this case, the cost-of-capital rate used is the same for all undertakings (e.g., fixed percentage) and corresponds to the spread above the risk-free interest rate that a BBB-rated (re)insurance undertaking would be charged to raise eligible own funds.
- 3.** SCR – Under Solvency II, the EEA insurers will have to calculate both assets and liabilities on a market-consistent basis, as well as MCR and SCR. The SCR is a more risk-sensitive and sophisticated approach to calculating solvency requirements, which will be more dynamic and is designed to project the economic balance sheet in one year's time following a 1-in-200-year loss event occurring. The SCR covers at least the major risks, insurance, market, credit, and operational risk, and will take full account of any risk mitigation techniques that can be demonstrated and would be applied in times of stress. The SCR may be calculated using a standard formula set out in the Directive or by using an internal model preapproved by the regulator for this purpose.
- 4.** MCR – While the SCR remains the target capital requirement under normal market conditions, the MCR is also included. MCR is designed to be the lower solvency calculation, corresponding to a solvency level, below which policyholders and beneficiaries would be exposed to an unacceptable level of risk, if the insurer were allowed to continue its operations.

It is expected that, in general, the SCR set by an internal model will provide a better reflection of an insurer's individual risk profile, which is the incentive for insurers to develop their own internal models. However, in allowing the use of an internal model, the regulators need to understand that it does properly cover all of the risks and is calibrated appropriately. The methods of calculating both SCR and MCR using the standard formula are under debate and will be finalized by the European Commission based on the outcome of the series of Qualitative Impact Studies (QIS).

**Figure 3: Pillar 1 components**



5. Own funds – BOF is the excess of assets over liabilities as determined by the EBS with any qualifying subordinated debt added back. Some forms of off-balance-sheet finance may receive regulatory approval to qualify as AOF. Both BOF and AOF are allocated to tiers of Own Funds depending on prescribed criteria, and the SCR and the MCR both have rules regarding the extent to which the tiers of Own Funds can be used as coverage of these requirements.
6. Investments – Under Solvency II, there are no prohibitions on classes of assets, but, for all assets held, insurers need to be able to demonstrate that they comply with the prudent person investment principles (PPIP). The PPIP requirements start from the premise that an insurer should be free to invest in any assets it chooses, provided that it fully understands the risks involved, makes proper provision for these (via the SCR), and that investment decisions are made in the best interests of the policyholders. These requirements will necessitate a change in the way assets are considered, both before acquisition and during the lifetime over which they are held.

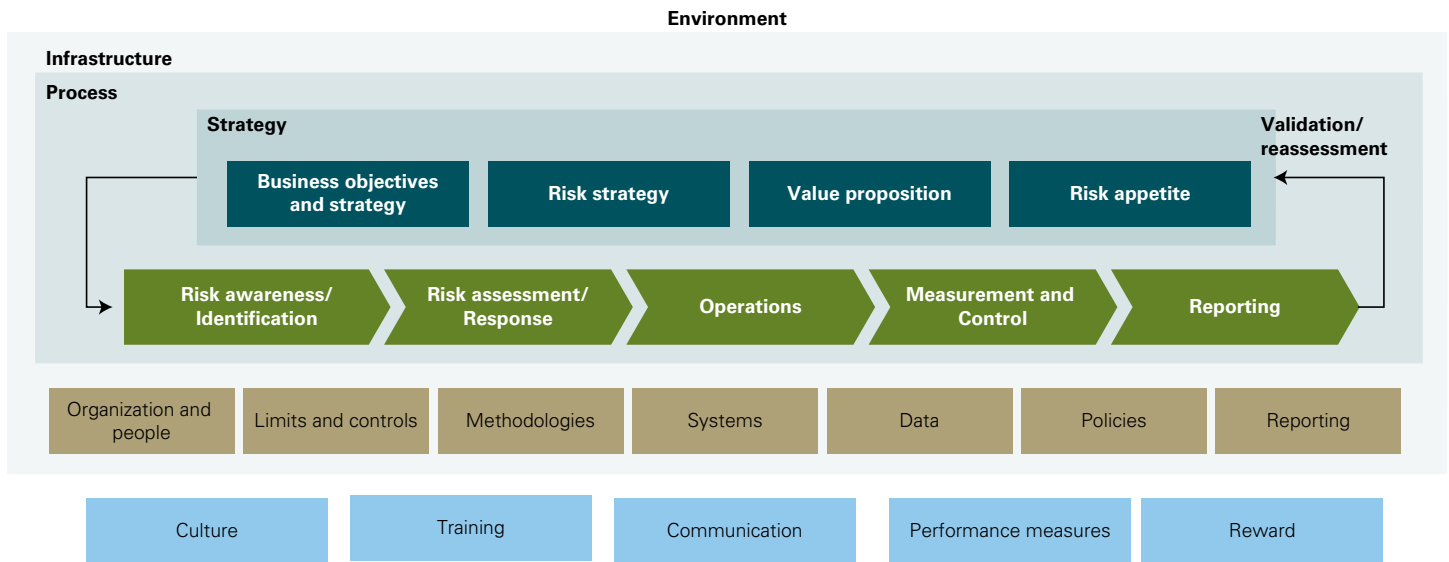
*Pillar 2: Demonstrating an adequate system of governance*

Pillar 2 is concerned with imposing high standards of risk management and governance within a firm’s organization. This pillar also requires supervisors to challenge firms on risk management issues and look at the qualitative aspects of a firm’s risk management and internal control systems. There will be qualitative requirements for risk management systems in insurance companies to clearly set out the requirement for an independent risk management function.

The framework in Figure 4 highlights some ideas of what Pillar 2 might entail. According to this framework, qualitative requirements will be based on three core strategic issues:

1. An overall responsibility of leadership for risk management
2. A clearly defined risk strategy which is linked to the business strategy
3. An ongoing management and control of the company’s risk-bearing capacity.

**Figure 4: Risk management system**



At the organizational level there will be various requirements. A key issue at this level will be the requirement for core functions and processes to be established to support a sound risk management system, i.e., risk management, actuarial, finance and, internal audit functions, and internal control, and ORSA processes, with the board having the ultimate responsibility for compliance over all three pillars. This list might not be comprehensive, but considering the importance of these processes for insurance companies, this would seem to be a reasonable assumption. Internal audit is a key area of development since all risk-related processes will be subject to the activities of internal audit, to ensure they are operating as intended.

Risk management will be another essential issue, and this is the area where Pillar 1 and Pillar 2 will really meet. It is important to note that at this point, Pillar 2 has the potential to take an even more overarching view of risk than Pillar 1 does, which will result in a more extensive list of risk categories to be covered as compared to Pillar 1.

Under Pillar 2 of Solvency II, it will not be sufficient for insurance companies to simply execute their core competency, i.e., manage their retained risk. The organizational setup and all the processes relating to management of the business environment have to be documented and formalized in order to be communicated to a supervisory authority. From KPMG's experience, the following areas can frequently require improvement. This list is by no means exhaustive.

**1. Governance, responsibilities, and strategy:**

- Comprehensive documentation of the business strategy
- Clear governance setup including a split of responsibilities across core functions listed above
- Articulation of risk strategy aligned to business strategy

**2. Independent and objective risk management function:**

- Design of core processes with regard to their transparency and formalization; but also, the alignment of certain processes will have to be improved
- Integration of risk controlling (both quantitative and qualitative) into the business management processes
- Alignment of activities of internal audit, especially around internal model validation

**3. Link to quantitative issues from Pillar 1:**

- Alignment of methods of risk measurement and risk controlling
- Development and documentation of a concept for the risk-bearing capacity of the firm

Additionally, this pillar requires a firm to undertake its own forward looking self-assessment of its risks, corresponding capital requirements, and adequacy of capital resources. This is through the setup of the ORSA process, which requires firms to undertake their own assessment of their solvency and financial position. It also covers the way supervisory reviews will be carried out. Essentially, the ORSA is an internal risk assessment process designed to ensure that senior management has conducted their own review of exposed risks and to assess their own solvency needs. The ORSA should be an integral part of managing the business against the company's chosen strategy and it should thus be an important tool in assisting strategic decision making.



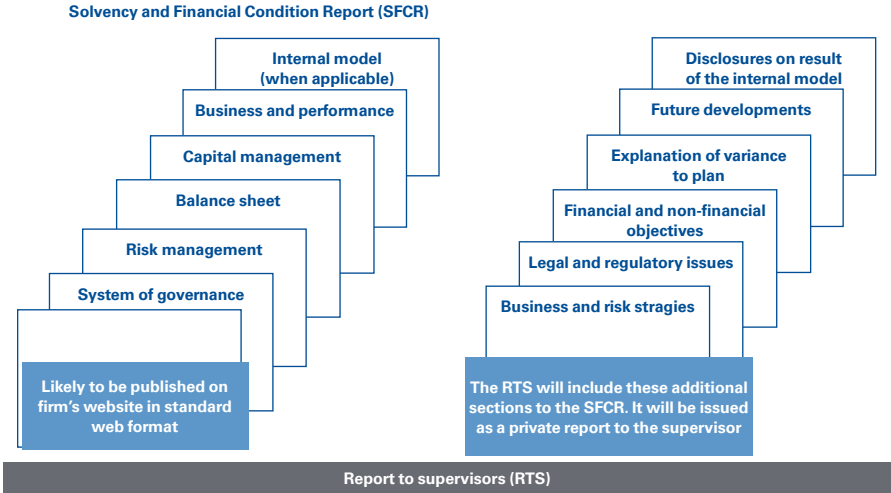
As part of Pillar 2, the Directive also includes a Supervisory Review Process (SRP). This will be carried out by the supervisory authority in reviewing insurance and reinsurance undertakings. The aim is to ensure compliance with the requirements of the Directive and to identify companies that have potential financial or organizational weaknesses that could increase risks to policyholders. The SRP will also be undertaken at group level. In an effort to enhance the SRP, the Directive offers incentives to supervised institutions to better measure and manage their risk situation.

*Pillar 3: Public disclosure and regulatory reporting requirements*

Pillar 3 aims to achieve greater levels of transparency to their supervisors and the public so that firms are more disciplined in their actions. This pillar focuses on disclosure requirements to ensure the transparency of the regime and that supervisors have the necessary information to ensure compliance with Solvency II. There is a private annual regular supervisory report and a public solvency and financial condition report that increase the level of disclosure required by firms. This includes an annual Solvency and Financial Condition Report that will contain key quantitative information. From a practice perspective, the scope of tasks under the Pillar 3 umbrella ranges from defining and updating company disclosure policy and technical requirements, to completing documentation of Solvency II procedures and the implemented reporting cycle run.

**Figure 5 below provides the outline of the depth of these annual disclosure requirements.**

The SFCR and RTS will contain a number of pre-defined sections, The SFCR is in effect a subset of the RTS which includes some additional sections:



In addition to recognizing key differences between Solvency II and its much compared counterpart Basel II, it's important to point out that there's a lot of blending between the Solvency II pillars, creating a holistic approach. The Directive's pillars are constructed to have a direct linkage to proper oversight and governance of capital and risk and performance management—an appropriate linkage that is embedded throughout the business.



## Uncovering the benefits of strategic implementation

Even though the overall insurance industry's solvency may not change significantly, the adoption of an integrated risk approach is a major change compared to Solvency I. Far from being merely a technical compliance issue, Solvency II could have major commercial implications in areas ranging from pricing and product design to investment strategy and market communications. Solvency II could indeed provide clear competitive advantages for European insurers by simplifying access to each other's markets and providing incentives for improved risk measurement and management. Some of these include:

### *Product pricing and design*

While Solvency I does not take into account the different underwriting risks, Solvency II will require adequate capital backing of all the risk features of the product, by requiring insurers to have a greater understanding of their risks and updating the models to reflect these risks. This will make transparent which products or product features are relevant for the insurer's solvency position and which are not. From the underwriting perspective, products with the following features may need to be backed with more capital:

- Products with high volatility of claims
- Long-term products that are heavily discounted
- Products with guarantees and options exposed to changes in underwriting or financial risks

### *Investment strategy*

The potentially greatest and most obvious impact of Solvency II will come from the introduction of capital requirements for investment risks. Solvency I (as well as the U.S. RBC regime) deals with investment risk only in the form of rules for the investment of asset-backing technical provisions. The new capital charges for investment risks may encourage insurers to take less investment risks than under Solvency I, i.e., they may reduce their share in equities and property within their investment portfolio and increase their share of higher rated fixed-income securities to reduce capital requirements. This would need to be balanced with the current capital base, potentially lower investment returns, and if the investment strategy is not changed, the additional capital charges imposed under Solvency II leading to reduced overall profit. Investment risks are particularly important in long-term business, such as life and disability insurance. In practice, the change in prices or product design will depend on the extent to which insurers have already incorporated investment risks, though these will need to be viewed now through a Solvency II lens.



### *Risk transfer mechanisms*

Under Solvency II, all risk mitigating instruments, such as reinsurance, hedging, and securitizations, need to be treated in a consistent manner. For these to be accepted as risk mitigation instruments, Solvency II requires that insurers quantify their actual contribution to risk reduction. Solvency II is likely to accept a wider spectrum of risk-hedging and risk transfer instruments, than Solvency I, which only permitted a uniform reduction for the use of reinsurance. The new options will give insurers an incentive to optimize their risk transfer solutions and may consequently intensify competition among providers of various solutions.

### *Reserving*

Technical provisions are the largest item on an insurer's balance sheet. Under Solvency II, the reserving risk, i.e., the risk that technical provisions will not be sufficient, has to be backed up by a capital charge. Technical provisions are currently taken into account by aligning the capital requirement to the reserves and/or capital at risk. Going forward, the need to factor reserves into the solvency calculation according to their risk profile makes it necessary to estimate the expected value and volatility of future payments. Market-consistent valuation of reserves, under Solvency II, is expected to enhance the transparency of reserves, and therefore, facilitate understanding of reserve risk. This is likely to encourage more adequate reserving on the one hand and possibly reduce the cyclical nature of technical provisions on the other. However, it may also have an impact on products with potentially high volatility of technical provisions and high runoff margins. These products may increase in price or have to be redesigned.

### *Organizational impact*

The Solvency II requirement of an enterprise-wide risk framework and associated focus on product design and risk transfer/management strategies are also likely to have an influence on insurance market structure. Solvency II will require a more formal approach to governance, organization, and decision making that necessitates insurers to demonstrate that risk awareness has been embedded into the fabric of the business. The framework will also require more complex and extensive analysis, along with a more systematic approach to risk management, which is likely to increase demand on actuarial and risk management functions. Companies will also need to look at how to coordinate actuarial, finance, risk management, and wider business functions more closely. In particular, the data and analysis used in the solvency calculations will need to reflect the strategic and management approach being adopted within the business, and vice versa. To sustain market credibility, investor relations teams will also need to ensure that financial and regulatory disclosures are compatible and, where they are not, explain why. Ultimately, as part of the "fit and proper" rules, boards will need to understand, endorse, and challenge what could be new and unfamiliar quantitative and qualitative information as part of their responsibilities as managers of the business and policyholders' interests.



## Realizing the impact on the United States and the world

While Solvency II will cause a transformational shift in the way the insurance industry operates in Europe, it will also have wide-ranging implications on a global scale. A trend of regulatory harmonization is already emerging, with other countries seeking to achieve equivalence to Solvency II through the adoption of risk-based regulatory frameworks. Switzerland, Bermuda (larger insurers only), and Japan (for reinsurance only) are among those countries considered for equivalence in the first wave of assessments based on three equivalence levels. These levels include group supervision, related third-country undertakings, and reinsurance (this is considered further below under “Achieving equivalence”).

In the absence of an equivalent regime, for the United States, group supervision and related third-country undertakings hold the greatest impact. Under Solvency II, group supervision is triggered by the existence of an EU insurance company being owned by a foreign parent company or group of companies. The intent of Solvency II’s group supervision requirements is to protect the policyholders of European insurers from the risks associated with the wider group of which they are part, either due to the level of group connectivity or due to insufficient coverage of the group’s insurance risks with readily transferable capital—in other words, the ability to identify the key group risks that are so material that, if improperly managed, can bring the group down, and hence, affect the European policyholders. It also requires that proper governance and controls are in place at the solo supervisory and group supervisory level.

Stopping short of requiring overseas companies to meet all of Solvency II requirements, countries still face a complex process in demonstrating equivalent risk and control processes. The EU requires the ability to understand the key risks facing an organization as well as the controls and processes that are in place to manage those risks in addition to proving capital adequacy to cover those risks. It factors in three major components:

- Establishing the main intergroup transactions that exist between the overseas organization and the European entity
- Determining the key group risks that could potentially impact the European entity

“The SMI is the largest reform of the U.S. regulatory system since the introduction of RBC in 1994. Such reform has been partially driven by international developments, including the solvency and group changes promoted in Solvency II.”



- Identifying the shared services provided to the European entity and the plans in place to ensure Solvency II compliance from those services.

Regardless of whether the parent company is located in the United States or another country, global insurance firms with operations in Europe will need to demonstrate to a group regulator that their group properly measures and manages risk and is sufficiently solvent in a way that does not pose a risk to European policyholders. This would provide the lead regulator in Europe with an internal upward look throughout the organization all the way to the top. The insurer would need to demonstrate to their lead regulator that they have some line of sight, according to the group’s supervisory requirements within the directive. If the group is unable to satisfy the group regulator, they could end up facing having a capital add-on directed at the subsidiary in Europe.

Conversely, in the absence of equivalence, U.S. companies that are subsidiaries of a European parent will need to be consolidated with their European counterparts and the Solvency II groups requirements applied to the consolidated position of the overall European parent. For “major” (i.e., significant to the group) non-European subsidiaries, this is likely to have significant risk management, data, and system implications.

### ***U.S reform: The Solvency Modernization Initiative***

As Europe pushes forward with Solvency II, the United States is also forging ahead with the NAIC’s SMI, which began in June 2008. According to the NAIC, the SMI is a critical self-examination of the U.S. insurance solvency regulation framework and includes a review of international developments regarding insurance supervision, banking supervision, and international accounting standards and their potential use in U.S. insurance regulation.

The NAIC has established an SMI Task Force, which will recommend areas of improvement

for the U.S. solvency framework, and in doing so, is looking at RBC requirements, group solvency regulation, ORSA, corporate governance, risk management, statutory accounting, and financial reporting and reinsurance.

Following the NAIC Spring 2010 meeting in Phoenix, Arizona, the SMI reported that the RBC requirements implemented in the 1990s were still held to be a necessary component of U.S. solvency regulation, but refinements would be considered to the formula. More advanced methods such as modeling would

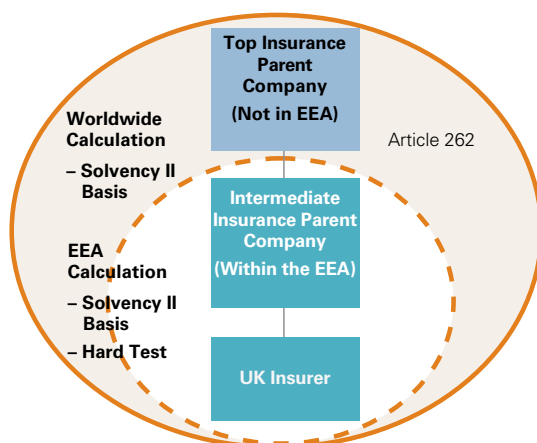
be introduced for risks where factor-based methods were not sufficient.

The SMI is the largest reform of the U.S. regulatory system since the introduction of RBC in 1994. Such reform has been partially driven by international developments, including the solvency and group changes promoted in Solvency II.

For a start, any changes in their risk profile may have the potential to significantly impact the parent group’s overall risk profile. Secondly, the size of data feeds necessary to perform the detailed calculations may render it more practical to undertake a lot of the work at the local level. There may, however, be some risks that are specific to the entity that it may be easier to deal with at the local level.

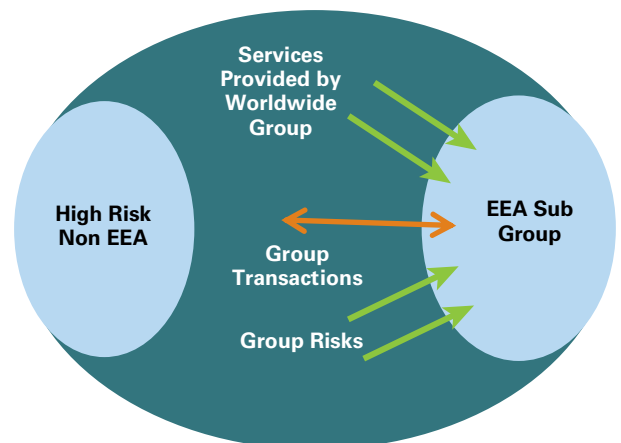
This raises the obvious question of “What type of rippling effect will this have for the domestic U.S. insurers playing either in the local or global markets?” given that a number of U.S. subsidiaries of EU parents are likely to require, and global EU insurers are required, to implement Solvency II, specifically an ORSA. As outlined previously in “Uncovering the benefits of strategic implementation,” the by-product of Solvency II may well provide European insurers with a competitive advantage in the global or domestic marketplace as a result of increased transparency and an integrated view of risk, capital, and performance. On the other hand, will the potential increased regulatory capital requirements (as opposed to internal economic capital requirements) prove to be a disadvantage by eroding profits? It is still too early to tell what the true impact of Solvency II will be on the international insurance market; however, a number of forward-looking international insurers have already started developing some of the functionality inherent within Solvency II to gain a competitive advantage over their rivals.

**Group Supervision: Solvency II  
– Non EEA Parent, Not Equivalent**



**Group Supervision: Solvency II  
– Non EEA Parent, Not Equivalent**

Article 262 offers scope for a pragmatic approach





## Achieving equivalence

It is not anticipated that the United States will be assessed for equivalence in the first wave of assessments due to its state-specific structure and lack of a central supervisory regulatory authority. Nevertheless, there appears to be political will to find an appropriate solution to enable the United States to be treated as equivalent for the purposes of Solvency II. It has been suggested that the freedom for local regulators to carry out their own assessments in the absence of an EIOPA assessment will mean a number of individual jurisdictions will recognize the United States as equivalent, thus giving it de facto equivalence status. In this context, the European Insurance and Reinsurance Federation has warned EIOPA that it must take a coordinating role to ensure that group supervisors reach the same conclusion on a jurisdiction.

In addition, exclusion of the United States from the initial assessments increases the urgency for EIOPA to set out clear transitional provisions. Omnibus II allows for transitional arrangements to be put in place for third-country regimes not assessed in the first wave of equivalence but treated as if they were. Yet, the criteria and the countries for application of these transitional arrangements are still being decided. While it is unclear if the United States will qualify for such transitional provisions, it will likely include some countries previously identified as important markets, i.e., Australia, Brazil, Canada, China, India, South Korea, and Turkey. It is also not yet clear whether the United States will be the subject of transitional provisions on equivalence. Those selected will likely need to be capable of meeting the equivalence assessment criteria by the end of the transitional period, which may be too difficult a time frame for the United States to complete. In practice, the importance of the U.S. market may lead to a bespoke approach being adopted.



## Understanding an evolving process

Solvency II will be implemented as EU legislation. Since 2001, the EU has sought to effect financial services legislation through a standard framework, termed the “Lamfalussy Process,” which is a four-level approach toward developing financial industry regulation. It is designed to foster a more efficient and rapid legislation process through consistent interpretation and convergence of supervisory practices. The Commission will then rely on consistency being achieved between the states through a process of supervisory cooperation and peer review. The Lamfalussy process<sup>2</sup> contains four levels:

### *Level 1 – Primary legislation*

This defines a proposal’s broad principles. Solvency II’s level 1 is the “Solvency II Framework Directive,” formally entitled the “Directive on the taking up and pursuit of the business of insurance and reinsurance.”

The Framework Directive was proposed by the European Commission and then was adopted under the “codecision procedure” involving both the European Council and the European Parliament on April 22, 2009. Once it is in force, EU member states must amend their national legislation to reflect the Directive by the specified deadline, which currently stands at January 1, 2013. However, the latest draft of the Omnibus II directive issued this month, June 21, 2011, endorses the widely expected delay of Solvency II, pushing the go-live date back to January 1, 2014. Omnibus II is still awaiting final approval by the European Parliament and the Council.

The Framework Directive will replace the EU’s existing 14 insurance and reinsurance directives.

### *Level 2 – Technical implementing measures*

These are more detailed requirements. Solvency II Level 2 implementing measures will be adopted by the European Commission, on the basis of advice formulated by the CEIOPS. CEIOPS was recently replaced by EIOPA, one of three newly formed EU regulatory bodies (see sidebar). Solvency II implementation



“Solvency II will be implemented as EU legislation. Since 2001, the EU has sought to effect financial services legislation through a standard framework, termed the “Lamfalussy Process,” which is a four-level approach toward developing financial industry regulation. ”



measures will spell out the detailed requirements that insurers must meet. The more detailed legislation may then be endorsed by a qualified majority of member states. To prepare for Level 2 implementation, the European Commission had CEIOPS run a series of QISs. To date, there have been five QISs: the most recent,

### EIOPA prepares for the future

The development of Solvency II is moving forward but is also very much still a work in progress. This is evident by the EU’s introduction of three new European supervisory authorities, including EIOPA. EIOPA is part of the European System of Financial Supervision consisting of three European Supervisory Authorities (ESAs) and the European Systemic Risk Board. It is an independent advisory body to the European Parliament, the Council of the European Union, and the European Commission.

EIOPA is granted extended powers under the Omnibus II Directive, a new directive published by the European Commission that proposes revisions to Solvency II. Omnibus II makes changes to existing legislation to enable supervisory convergence under the new European regulatory architecture. It sets out the scope of how the new ESAs will exercise their powers, including their capacity to develop draft technical standards and settle disagreements between national supervisors.

EIOPA replaces the CEIOPS—marking a developmental shift from regulatory framework to the beginning stages of implementation and supervision. CEIOPS, which acted in an advisory capacity in the development of the Solvency II regulation and framework, was instrumental in carrying out a series of QISs. The studies, which resulted in valuable input from voluntary European insurers, were designed to help calibrate the solvency standard and provide insight into the economic consequences on the insurance industry, financial markets, and policyholders.

Frankfurt-based EIOPA, along with local regulators, will now help develop and support the implementation phase of Solvency II. According to its Web site (<https://eiopa.europa.eu/home/index.html>), EIOPA’s core responsibilities are to support the stability of the financial system, transparency of markets and financial products, as well as the protection of insurance policyholders, pension scheme members, and beneficiaries.

QIS5, ran from August to November 2010. When conducting a QIS, CEIOPS created detailed technical specifications and asked insurers to report the implications for their financial positions of complying with those specifications.

#### *Level 3 – Cooperation between national supervisors to ensure harmonized outcomes*

National supervisory authorities work together to provide advice to the Commission. The Level 3 committees also aim to foster supervisory convergence and best practice, principally through the creation of (non-legally binding) guidance.

#### *Level 4 – Postimplementation enforcement*

After the deadline for implementation, the European Commission is responsible for ensuring that member states are complying with the legislation. If they are not doing so, the Commission will take enforcement action.

While the Lamfalussy process provides a good outline, the development of Solvency II is clearly an evolving process that is constantly changing. As more consultation is conducted with the market, more insights are gained, and new opportunities and challenges are revealed, and new ways of working will continue to be developed in an effort to achieve the best possible outcome. A good example is the creation of EIOPA as a European-wide formal regulatory body with actual powers, which was never envisioned within the Lamfalussy process. EIOPA has much wider powers than CEIOPS had and also has more clarity to its role, which includes the power to set binding technical standards and settle disagreements between regulators. In fact, according to the Omnibus II, EIOPA must develop the draft technical standards, including templates and structures for disclosures, by the end of this year.

The Omnibus II remains a draft Directive, but since it is the legal instrument for making changes to Solvency II, any changes to its proposals provide good evidence of current thinking regarding Solvency II development.

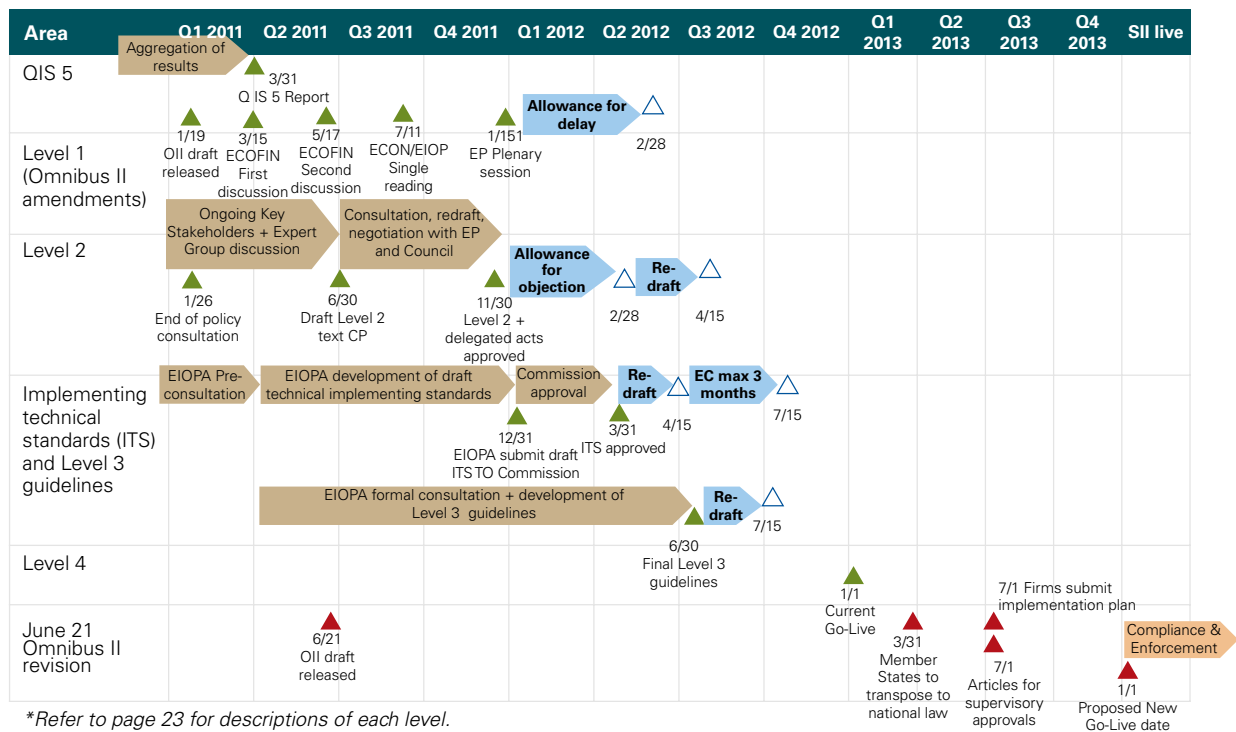
The European Council has issued three revised versions of Omnibus II this month (June 2011), the latest of which was issued on June 21, 2011. The last of these contains the anticipated delay to the implementation date for Solvency II.

Key dates within the June 21, 2011 version of Omnibus II are as follows:

- Member States to transpose the requirements into national law by March 31, 2013
- Provisions apply from January 1, 2014
- Articles relating to supervisory approvals become effective from July 1, 2013, although any decisions made are not effective before January 1, 2014
- Firms must provide their supervisors with “an implementation plan providing evidence of progress made” by July 1, 2013.

The European and local regulators positions remain unclear regarding implementation timing. It should be noted that there is no material change to the underlying principles to implementation requirements. We suspect firms will continue to push forward with implementation.

The key dates of the Solvency II time line in the run up to implementation, prior to and following the proposed June 21, 2011 version of the Omnibus II change, are shown below.





## Summary

Solvency II will foster a holistic and forward-looking appreciation of risk within the European insurance industry. It is intended to assist in the enhancement of the functioning of the insurance market discipline by increasing transparency and disclosure. Overall, it should improve the international competitiveness of European insurers and increase their operational efficiency by setting a world-leading standard that requires insurers to focus on managing all of the risks facing their organization.

Solvency II should provide the right balance between risk taken and performance incentives through a better reflection of risk management. This should also foster innovation in product development that brings together customized products with manageable risk features. Hence, Solvency II will reinforce insurance companies focus on economic value creation linked to strong risk management.

Even though Solvency II is a regulatory change within the EU, it is likely to have an impact globally, not least for non-EU parents of EU subsidiaries and non-EU subsidiaries of EU parents, by potentially driving increased operational efficiency in the domestic insurance market and raising standards and expectations around risk and capital management.

In conclusion, with Solvency II meeting its objectives of a healthy insurance industry, it is likely to bring with it some business benefits to the insurer through the creation of a framework that consistently reflects economic principles, strong governance and risk management, recognition of diversification benefits, allowance for risk mitigation techniques, risk adequate pricing, and reliance on market mechanisms through increased transparency via public disclosures.



## Glossary

**Adjusted SCR** – The Solvency Capital Requirement level that includes any supplementary capital requirement determined through the Solvency II’s Pillar 2 Supervisory Review.

**AOF** – Ancillary Own Funds (*see Own Funds*)

**Best estimate liability** – The expected or mean value (probability weighted average) of the present value of future cash flows to settle contract obligations, projected over the contract’s runoff period, taking into account all up-to-date financial market and actuarial information

**BOF** – Basic Own Funds (*see Own Funds*)

**CEIOPS** – Committee of European Insurance and Occupational Pensions Supervisors

**EBS** – Economic Balance Sheet – A balance sheet statement based on one of those accounting approaches using market-consistent values for all current assets and current obligations relating to in-force business.

**EEA** – European Economic Area

**EIOPA** – European Insurance and Occupational Pensions Authority

**FASB** – Financial Accounting Standards Board

**IECR** – Internal Economic Capital Requirement – the company management’s internal estimate of capital need.

**IFRS** – International Financial Reporting Standard

**Internal model** – A model that meets Solvency II’s requirements of the following six tests: statistical data quality standards, calibration standard, validation test, profit and loss attribution, use test, and documentation standards.

**Lamfalussy model** – Four-level approach for developing financial industry regulation which is designed to foster rapid legislation and consistent integration across all EU territories.

**Market value margin** – Risk Margin, when added to the best estimate of liabilities, produces a market consistent valuation of insurance liabilities.

**MCR** – Minimum Capital Requirement – the minimum level of regulatory capital.

**NAIC** – National Association of Insurance Commissioners

**ORSA** – Own Risk and Solvency Assessment – An assessment of an insurer’s processes and procedures used 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 its overall solvency needs are met at all times.

**Own Funds** – Capital, as described under Solvency II. Basic Own Funds (BOF) is the excess of assets over liabilities as determined by the EBS with any qualifying subordinated debt added back. Some forms of off-balance-sheet finance may receive regulatory approval to qualify as Ancillary Own Funds (AOF). Both BOF and AOF are allocated to tiers of Own Funds depending on prescribed criteria, and the SCR and the MCR both have rules regarding the extent to which the tiers of Own Funds can be used as coverage of these requirements.

**Pillar 1** – The portion of Solvency II focused on all the quantitative capital requirements, which cover market-consistent valuations of assets and liabilities, calculation of available capital, capital requirements, and internal model validation. This pillar aims to ensure firms are adequately capitalized with risk-based capital. All valuations in this pillar are to be done in a prudent and market-consistent manner. Companies may use either the Standard Formula approach or an internal model approach. The use of internal models will be subject to stringent standards and prior supervisory approval to enable a firm to calculate its regulatory capital requirements using its own internal model.

**Pillar 2** – The qualitative requirements, which covers the principals of internal control, governance, risk management, ORSA process, and supervisory review process. The portion of Solvency II focused on imposing higher standards of risk management and governance within a firm’s organization. This pillar also gives supervisors greater powers to challenge their firms on risk management issues. It includes ORSA, which requires a firm to undertake its own forward-looking self-assessment of its risks, corresponding capital requirements, and adequacy of capital resources.

**Pillar 3** – Market discipline, which covers disclosure requirements, both private to the supervisors and public to the marketplace. The portion of Solvency II that aims for greater levels of transparency for supervisors and the public. There is a private annual report to supervisors, and a public solvency and financial condition report that increases the level of disclosure required by firms. Any current returns will be completely replaced by reports containing core information that firms will have to make to the regulator on a quarterly and annual basis. This ensures that a firm's overall financial position is better represented and includes more up-to-date information.

**PPIP** – Prudent Person Investment Principles – The PPIP requirements start from the premise that an insurer should be free to invest in any assets it chooses, provided that it fully understands the risks involved, makes proper provision for these (via the SCR), and that investment decisions are made in the best interests of the policyholders. These requirements will necessitate a change in the way assets are considered, both before acquisition and during the lifetime over which they are held.

**QIS** – Quantitative Impact Studies – A series of exercises to test the financial impact and suitability of proposed Solvency II requirements on firms.

**RBC** – Risk Based Capital – Represents an amount of capital based on an assessment of risks that a company should hold to protect customers against adverse developments.

**RTS** – Report to Supervisors – A report submitted to the supervisor that contains information considered necessary for the purposes of supervision.

**SCR** – Solvency Capital Requirement – The risk-based level of regulatory capital.

**SFCR** – Solvency and Financial Condition Report – Public disclosure report required to be published annually by insurers and will contain detailed quantitative and qualitative elements.

**SMI** – Solvency Modernization Initiative – A U.S. initiative being driven by the NAIC to examine and modernize the U.S. insurance solvency regulation framework. It includes a review of international developments regarding insurance supervision, banking supervision, and international accounting standards and their potential use in U.S. insurance regulation.

**SRP** – Supervisory Review Process – A process that enables the supervisory authority to continuously evaluate an insurer's relevant regulatory requirements.

**Standard Formula** – A non-entity-specific, risk-based mathematical formula used by insurers to calculate their Solvency Capital Requirement under Solvency II.

**Technical Provisions** – The amount that an insurer needs to hold in order to meet its expected future obligations on insurance contracts.

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