



High-end Actuarial Risk Management Solutions
– to Rationalize the Impact of Emerging
Regulatory Trends on U.S. Insurers

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Introduction

'Great Recession' and the Global Economic Crisis Lead to Regulations to Protect Insurance

The past few years have witnessed significant global financial turmoil and extreme economic crisis that had their roots in the sub-prime loan crisis, which led to the fall of Lehman Brothers and started what has been termed as the 'Great Recession' or 'Long Recession'. To add to the complexity, the sovereign debt crisis broke out in the Eurozone in 2011; also, the world witnessed intense geopolitical turmoil in the Middle East last year. Such intense and climacteric changes have resulted in the world economy entering a phase, described as 'dangerous' by a January 2012 World Bank report.

Policy makers and governments the world over, are looking at large-scale changes in regulations and initiating policy makeovers, in order to bring some respite to the world economy and shielding businesses and investors, particularly in the financial services domain, from making crippling losses.

Insurance is one such sector where the sheer risk associated with the business environment necessitates stringent regulatory systems. Europe and US – the two biggest insurance markets in the world have felt the ripples of the past economic crisis and breakdown of financial markets, and are now bracing to protect the insurance business as well as investor sentiments. The principal objective of insurance regulation is to protect policyholders and the society in general against excessive insurer insolvency risk.

The International Association of Insurance Supervisors (IAIS), which boasts a membership of at least 190 global regulatory jurisdictions, is emerging as the international standard setter for regulations. In 2011, the IAIS developed its Insurance Core Principles (ICPs), which are similar to the principles in Solvency II (see below). The IAIS is seeking to establish a common framework (ComFrame), which will provide greater harmonization and transparency for insurance supervision across the globe. The ICPs are expected to modernize and bring uniformity to the disparate supervisory frameworks, which oversee global insurance companies.



Some common requirements that have emerged from these regulatory developments include:

- Movement towards a more risk-based approach
- Capital and solvency measurement
- Greater focus on risk management and governance
- Use of stress and scenario testing
- Group supervision

This paper highlights the potential impact of these regulatory changes on U.S.-based insurers especially in view of the Europe-driven Solvency II initiatives and describes other developments undertaken by U.S. supervisory bodies focusing on advanced risk management practices.

Solvency II Overview

Europe – Gearing Up to Overhaul Capital Adequacy Requirements, Corporate Governance and Disclosures with Solvency II

In Europe, Solvency II – the European Union (EU) directive is all set to review and revise the overall approach to regulating insurance companies in the European market. This directive will bring changes to capital adequacy requirements and determination, corporate governance and public disclosures. These changes are due to be implemented in 2014.

The Solvency II regime is somewhat similar to the banking regulations of Basel II and based on three guiding principles (pillars), each pillar focusing on a different regulatory component.

Pillar I – Estimation of the QUANTITATIVE requirements

- Assets and Liabilities – Market Consistent Valuation

- Solvency Capital Requirement (SCR) – Standard Formula or Internal Model
- Minimum Capital Requirement

Pillar II – Evaluation of QUALITATIVE requirements

- System of Governance
- Own Risk and Solvency Assessment (ORSA)
- Supervisory Review Process

Pillar III – Disclosure of the institution's solvency and financial situation

- Public Disclosure – Annual Solvency and Financial Condition Report
- Information to be Provided for Supervisory Purposes

The Potential Impact of Solvency II on U.S.-based Insurers

While not all U.S. insurance and re-insurance companies will be directly subject to Solvency II that will come into effect on January 2014, most insurers will feel its impact in some way or the other. It is a huge challenge for insurers, with the kind of changes that will need to be implemented: right from transformation of IT systems to revamping the culture of the company. Once implemented, these changes will give insurers

a definitive edge over competition. Companies that fully embrace Solvency II and are appropriately equipped to demonstrate to regulators that they meet Solvency II requirements and have appropriate capital reserves will have greater flexibility than their counterparts. However, the impact of Solvency II will depend on the degree to which an insurer carrier is globally diversified.

The key scenarios and implications of Solvency II on the U.S. Insurance Industry are as follows:

1. Principles versus Rules-based Approach

The NAIC's Risk-based Capital (RBC) system, essentially a formula based approach was created to provide a standard capital requirement framework across all U.S. states.

Because of the sudden surge in economic turmoil in recent times, there has been a shift from a rules-based approach to a principles-based approach to supervision and regulation.

As insurance business is getting increasingly complicated with more complex products, flexible commission structure, customer's preference to guarantees, challenging economic environment, new risk management frameworks and dynamic regulatory changes, a principles-based approach enables a better alignment of regulatory capital with the underlying risks faced by insurers.

2. U.S.-based and U.S.-owned Foreign Subsidiaries

In order for the parent company to meet Solvency II requirements, its U.S.-based subsidiaries must provide the required MCR and SCR calculations, must meet the Pillar II requirements regarding risk management practices and structure (including its Own Risk and Solvency Assessment), governance, documentation and controls, and must provide information to their parent in order to meet the reporting requirement under Pillar II.

In addition, if the parent company plans to use an internal model, the subsidiary must then demonstrate that the results of their own internal model are used as the basis to make business decisions, including underwriting, pricing and performance measurement.

Similarly, U.S.-owned foreign subsidiaries will need to produce the required MCR and SCR calculations, comply with governance requirements, and provide the required reporting and disclosure. There will be implications for the parent company due to the change in the capital requirements themselves, as well as implications on business decisions related to the subsidiary on the extent internal models are being used in decision-making process.

3. Capital Management and Competitiveness

Solvency II provides a framework for effective capital and risk management where all the risks are identified and managed adequately. The provision of risk-mitigation techniques like re-insurance, hedging, diversification benefits will provide opportunities for EU-based insurers to change their risk profiles and capital requirement.

In the short term, U.S.-based companies may have a competitive advantage in pricing products with low U.S. capital requirements as compared to the Solvency II required capital. However, those companies using Solvency II approaches may have a deeper understanding of the underlying risks in the products, which will provide longer term advantages as financial results are realized.

Solvency II, Equivalence or SMI – Which Regulatory Path Will the US Follow?

While European insurers are gearing up to implement the directives of Solvency II, pressure is mounting on the US to adopt global regulatory standards.

The opinion on whether US should adopt a Solvency II-like regulatory framework is divided. Some from the U.S. insurance fraternity feel that an exact replica of Solvency II is not required for an insurance market like US, which according to the National Association of Insurance Commissioners (NAIC), represents 33.56 percent of the world-wide insurance market share vis-à-vis UK, which represents 6.48 percent of the market. Most others, however, feel that an 'Equivalence' of Solvency II is desirable for the U.S. insurance market, which will have implications on regulation, governance, capital and reserve calculation and, ultimately product design for U.S. insurers, and thus provide a level playing field among insurers world-wide.

Recent developments in U.S. Insurance Regulations

In 2008, the National Association of Insurance Commissioners (NAIC) in the US announced a coordinated effort to analyze the solvency regulatory framework of insurance in the US. The NAIC has underlined the importance of top-down involvement of the management in order to understand enterprise-wide risks and is looking at corporate governance in consultation with the industry and in line with the ICPs proposed by the IAIS.

Solvency Modernization Initiative (SMI)

The NAIC started the Solvency Modernization Initiative (SMI) in 2008, with an aim to improve the

U.S. solvency framework and to assess whether any changes to that framework are needed. The goal of the SMI is to link economic capital requirements to a company's risk profile. While the US annually improves its regulatory solvency system to adjust the system as needed, especially regarding the annual update to the RBC formula and factors, the NAIC's Solvency Modernization Initiative (SMI) includes focus on five key solvency areas:

- Capital Requirements
- Corporate Governance and Risk Management
- Supervision
- Accounting and Financial Reporting
- Re-insurance

The SMI will highlight the strengths of the state-based national system of insurance regulations and identify improvements that might be made. All work on the project is expected to be completed by the end of 2012.

The first three areas are similar to Solvency II's Pillars 1-3. The accounting and financial reporting area deals with investigating the adoption of International Financing Reporting Standards (IFRS) used in Europe. In the US, insurance companies use Statutory Accounting Principles (SAP) while their corporate parents use Generally Accepted Accounting Principles (GAAP). However, many U.S.-based multi-national companies that are currently using United States Generally Accepted Accounting Principles (US GAAP) have finished an initial impact assessment, or are in the process of conducting an assessment of converging to IFRS.

Own Risk and Solvency Assessment (ORSA) Proposal

In addition to SMI, the NAIC also released a draft proposal for the creation of a US ORSA process. The proposal requires insurers to complete an ORSA annually for each statutory entity, as well as at the insurance group level, and submit the results to state regulators. The results should demonstrate that each entity's capital — both regulatory and economic — is sufficient to cover the risks inherent in the insurer's business plan.

Regulators will use this information to better understand the prospective risks to each insurer's plan and judge the adequacy of capital for the risks identified. The ORSA proposal represents a broader and prospective approach to U.S. insurance regulation.

Clearly, ORSA will supplement the existing RBC review and provide regulators with a more dynamic view of each company's risk profile. Regulators will be able to key in on each insurer's top risks and more efficiently allocate resources to the most critical areas for regulatory review.

Solvency II Equivalence

In addition to strengthening regulations and tools at home, the NAIC is also planning to ensure that the U.S. regulatory framework is deemed “equivalent” under Solvency II in Europe. Equivalence is important to the competitiveness of U.S. insurers doing business in the Europe Economic Area (EEA), particularly to ensure that capital add-ons or collateralization are not imposed as a result of being domiciled and regulated by a non-EEA equivalent regulator. The NAIC's SMI and ORSA will aid in any future Solvency II equivalency reviews.

The Way Forward

That the U.S. Insurance industry is heading towards a regulatory overhaul is evident from the initiatives that are being taken by IAIS and NAIC. Whether the regulatory changes will align completely with Solvency II or will be driven towards attaining 'equivalence' with Solvency II remains to be seen. U.S. insurance firms that have direct relationship with the European soil, either as a subsidiary or as a parent, will feel the impact of Solvency II (as highlighted in the paper earlier). Whatever the scenario, the U.S. Insurance industry will have to prepare itself to improve risk management and governance, the key parameters to survive in the post-Solvency II world.

U.S. Insurance companies should look at Solvency II as part of a process of continuous improvement in risk management and governance. Senior management of insurance companies should consider the impact of Solvency II in order to keep

their companies competitive, as the market at large could view companies that adopt the stronger risk management and governance procedures in Solvency II as stronger and better managed companies. Solvency II requirements will create greater confidence in the insurance industry's business model and management, as viewed not only by regulators but by rating agencies, analysts, investors and other stakeholders.

Implementation of Solvency II and similar regulations like SMI or ORSA will require a significant amount of effort, in bringing about a change in the organizational culture and management's approach to making decisions. Risk Management, being the core of Solvency II and SMI, will need significant amount of attention and focus. Additionally, it will also necessitate the involvement of technology and automation to make the transition to the new regulation possible.

WNS Actuarial Services and Risk Management

WNS is a world leader in providing actuarial offshore and onshore services. We offer specialized actuarial services to meet the emerging needs of our customers across all domains of the insurance industry from Life, Annuity, Retirement, Property & Casualty, Health Insurance and Re-insurance.

Our capability includes product development, pricing, cash flow projections (Prophet / MG-Alfa / Moses / Igloo), financial and statutory reporting, asset liability management, claims reserving, predictive modeling and optimization.

Given our deep understanding of the insurance business, we assist our customers in the implementation of transformational projects such as rationalization of actuarial models, standardization of reporting process, development of risk management framework, assessment of potential impact of regulatory changes and so on.

WNS Actuarial Services utilizes a cost-efficient global flexible delivery model, enabling customers to effectively deploy their valuable actuarial resources to strategic tasks.

Stochastic Modeling of Business Risks

We take advantage of enhanced technology platforms and sophisticated modeling techniques to deliver improved insight into your fundamental business risks, including morality, longevity, lapses and interest rate. We have assisted our customers in the development of replicating portfolios in order to improve the speed and accuracy of certain calculations and meet the following business needs:

- Stochastic Calculation of Economic Capital
- Cost of Options
- Asset Liability Management / Hedging and Management of Financial Risk
- Fast Close Financial Reporting
- Profitability Targets / Projection of Shareholder Value

Financial Reporting and Analysis

We deliver business-critical services in major functional areas of actuarial reporting, including data validation, assumptions setting, movement analysis and scenarios testing across various reporting regimes like US GAAP, IFRS, MCEV, EEV.

As financial reporting standards evolve, our customers benefit from our broad knowledge of current best practices and insight on emerging issues. As industry reporting standards change, we provide insight on emerging areas, including local country GAAP, impact of IFRS requirements, Solvency II.

We can also review your existing methods and processes and suggest improvements to make your reporting process accurate and faster.

Risk Management Solutions

Rating agencies, analysts, shareholders, and regulators are all taking more interest in capital models and risk management. Effective risk management acts as the common link between balance sheet strength, operating performance and business profile.

The key components of effective risk management program are as follows:

- Align Risk Appetite and Strategy
- Enhance Risk Response Decisions
- Reduce Operational Surprises and Losses
- Identify and Manage Multiple and Cross-enterprise risks
- Improving the Deployment of Capital

We assist our customers in developing Own Risk and Solvency Assessment (ORSA) capability and framework, embedding its implementation within a firm's decision-making process at management and operational level and developing effective MI for internal and external stakeholders.

About WNS

WNS (Holdings) Limited (NYSE: WNS), is a leading global business process outsourcing company. WNS offers business value to 200+ global clients by combining operational excellence with deep domain expertise in key industry verticals, including Travel, Insurance, Banking and Financial Services, Manufacturing, Retail and Consumer Packaged Goods, Shipping and Logistics, Healthcare and Utilities. WNS delivers an entire spectrum of business process outsourcing services such as finance and accounting, customer care, technology solutions, research and analytics and industry-specific back-office and front-office processes. WNS has over 23,000 professionals across 25 delivery centers world-wide, including Costa Rica, India, the Philippines, Romania, Sri Lanka and United Kingdom.

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