



Insurance Regulation and the Challenge of Solvency II: Modernizing the System of U.S. Solvency Regulation

Robert W. Klein, Ph.D.



NAMIC[®]

Where the future of insurance has its voice[®]

Insurance Regulation and the Challenge of Solvency II: Modernizing the System of U.S. Solvency Regulation

Robert W. Klein, Ph.D.
Department of Risk Management and Insurance
Georgia State University



The National Association of Mutual Insurance is the largest and most diverse property/casualty trade association in the country, with 1,400 national, regional and local mutual insurance member companies serving more than 135 million auto, home, and business policyholders. These companies write in excess of \$196 billion in annual premiums, accounting for 50 percent of the automobile/ homeowners market and 31 percent of the business insurance market. More than 200,000 people are employed by NAMIC member companies.

Foreword

An insurance company is insolvent when it lacks the financial wherewithal to pay the claims of its policyholders. Fortunately, insurance company insolvencies are not common in the U.S. and occur far less frequently than insolvencies of many other financial services firms. But when they do occur, insurer insolvencies are a hardship for all parties concerned. The jobs performed by rank-and-file employees of the insolvent company are lost forever. For policyholders, there is consolation in the fact that most outstanding claims will be at least partially satisfied by state-administered guaranty funds, but not every claim may be paid in full. And to replenish its coffers in the aftermath of an insolvency, a guaranty fund will typically impose substantial assessments on healthy insurers. For all these reasons, it would be difficult to overstate the importance of effective solvency regulation to consumers, insurers, and the broader economy.

Yet no amount of regulation can ensure that company insolvencies will never occur. The most regulators can do is devise and enforce company financial standards that will reduce the likelihood of insolvency. Moreover, as much as we desire to prevent insolvencies, it is important to bear in mind that solvency regulation necessarily imposes costs of its own. As Robert W. Klein notes in the report you are about to read, “tighter solvency standards will tend to reduce the supply of insurance and increase its price,” whereas “greater flexibility with respect to solvency requirements allows insurers to offer a wider range of possible product and price options, and allows consumers to incur greater risk in return for lower prices and/or greater benefits.” Instead of attempting to eliminate all potential insolvencies, the goal of regulation, Klein observes, should be to achieve “optimal balance between insolvency costs and regulatory costs.”

In the pages that follow, Dr. Klein skillfully deconstructs the current U.S. solvency regulatory regime, highlighting the critical role of the National Association of Insurance Commissioners while evaluating the impact of recent NAIC-sponsored innovations such as “risk-focused surveillance” of insurers’ financial condition. Dr. Klein then examines, in painstaking detail, the European Union’s complex and multi-faceted Solvency II directive, comparing it to the U.S. system with respect not only to discrete rules and practices, but with an eye toward identifying differences between the two systems’ overarching objectives and philosophical underpinnings.

As its title implies, much of the report consists of a comprehensive examination of the NAIC’s response to Solvency II, particularly as manifested in the group’s Solvency Modernization Initiative and its most consequential progeny to date, the Own Risk and Solvency Assessment, which many U.S. insurers will soon

be required to file. Readers may judge for themselves how close these measures come to achieving the “optimal balance” mentioned above.

NAMIC’s hope is that Dr. Klein’s objective and unbiased treatment of the ongoing solvency modernization project will serve to inform industry professionals, media analysts and commentators, and policymakers both in the U.S. and abroad. If done correctly, modernization of solvency regulation could spark a movement to reform other aspects of insurance regulation – such as rules governing rates and policy forms – that also cry out for modernization in today’s insurance marketplace.

Charles M. Chamness
President & CEO
National Association of Mutual Insurance Companies

Contents

Chapter I

Introduction and Overview of Insurance Regulation in the United States and European Union.....	1
Insurance Regulation in the United States	
Insurance Regulation in the European Union	

Chapter II

Forces Motivating U.S. Regulators Toward Modernizing Solvency Regulation	12
Driving Forces	
Approach and Philosophy	
Capital Requirements	

Chapter III

Governance and Risk Management	30
Comparison of U.S. and EU Approaches	
Potential Changes in U.S. Corporate Governance/Risk Management	
Group Supervision	

Chapter IV

Statutory Accounting and Financial Reporting.....	50
The Current U.S. System	
International Accounting Standards for Insurance and Solvency II	
Potential Changes to U.S. Financial Reporting Requirements	

Chapter V

Reinsurance	62
Current U.S. Standards for Credit for Reinsurance	
Treatment of Reinsurance Under Solvency II	
Changes to U.S. Standards	

Chapter VI

Risk-Focused Surveillance	67
Overview	
Key Elements of Risk-Focused Examinations	
Assessment of Risk-Focused Examinations	

Chapter VII

Price, Product, and Market Conduct Reform.....	78
--	----

Chapter VIII	
Summary and Conclusions	80
References	82
About the Author	87

Chapter I

Introduction and Overview of Insurance Regulation in the United States and European Union

Introduction

Insurance regulatory reform in the United States has been an ongoing process for more than a century. Regulators have improved their policies, methods, and tools as the insurance industry has evolved to meet the changing needs of its customers for insurance products and risk management solutions. While regulatory reform has been an ongoing process, there have been episodes of significant and extensive reforms in reaction to crises or other developments that have required some form of regulatory response. Significant changes in insurance regulatory policies and practices at an international level, including Solvency II, as well as the recent financial crisis, have prompted U.S. regulators to reconsider the current system of solvency oversight. This reconsideration is reflected in the National Association of Insurance Commissioners' (NAIC) Solvency Modernization Initiative (SMI). The objective of this paper is to review and assess the changes to the U.S. system of solvency oversight that have been made or are being considered and offer opinions as to how U.S. regulators should respond to changes in international standards and practices for insurance regulation, particularly in the European Union (EU).

The paper begins with an overview of how insurance regulation is structured in the U.S. and EU, which is followed by a discussion of the internal and external forces that influence U.S. regulatory policies. The contrasting philosophies and approaches to insurance in the U.S. and EU are also examined. The paper then describes and assesses the five principal components of the NAIC's SMI: 1) capital requirements; 2) governance and risk management; 3) group supervision; 4) statutory accounting and financial reporting; and 5) reinsurance. This is followed by an evaluation of the NAIC's risk-focused surveillance framework and current U.S. regulatory policies and practices with respect to insurance prices, products, and market conduct. The paper concludes with a summary of the key findings in each of these areas and their implications for the future of insurance regulation in the U.S.

Insurance Regulation in the U.S.

The U.S. is somewhat unique among countries in that insurance regulation is primarily delegated to the states. In most countries, insurance is regulated at the national level and, in a few instances, regulatory responsibilities are shared

by national and state/provincial authorities. Under the McCarran-Ferguson Act enacted in 1945, Congress delegated the principal responsibility for regulating insurance to the states unless it specifically intervenes and chooses to supersede and assert federal regulatory authority over a particular area of insurance or particular entities involved in the business of insurance. Federal intervention can take various forms, including setting standards that the states are expected to enforce or enacting certain rules regarding how insurance companies are regulated. Alternatively, Congress may exempt certain aspects of insurance or insurance entities from state regulation and may or may not assign oversight of these areas or entities to a federal agency.

Each state has an official and an agency that are responsible for regulating insurers and intermediaries (e.g., agents and brokers) operating within the state. The regulatory framework is not confined to insurance departments but extends to all levels and branches of government. The state legislature establishes the insurance department, enacts insurance laws, and approves the regulatory budget. Insurance departments are part of the state executive branch, either as a stand-alone agency or as a division within a larger department. Insurance commissioners must often utilize the courts to help enforce regulatory actions, and the courts, in turn, may restrict regulatory action. The NAIC, whose members consist of the chief insurance regulatory officials in each state, has established the Financial Regulation Standards and Accreditation Program that requires each state insurance department to meet a set of established standards in regulating the solvency of insurance companies. These standards require that each state insurance department must coordinate with other state insurance departments in regulating multi-state insurers in order to be accredited.

The NAIC plays an important role in the U.S. regulatory system. The NAIC is a private, non-profit association of the chief insurance regulatory officials of the 50 states, the District of Columbia, and the five U.S. territories. It was established in 1871 to coordinate the supervision of multi-state companies within a state regulatory framework, with special emphasis on insurers' financial condition. The NAIC functions in an advisory capacity as well as a service organization for state insurance departments. It is important to understand these functions in considering how U.S. regulators may respond to international regulatory developments. The NAIC is serving as a focal point for initiatives intended to "modernize" solvency regulation – the SMI – and will likely provide certain centralized services to help implement these initiatives.

There are different viewpoints on whether the NAIC exercises too little or too much influence in determining state regulatory policies. Some critics point out that the NAIC is a voluntary organization and cannot compel states to adopt its model laws or take other actions. Other critics argue that the NAIC operates

as a quasi-governmental entity that exercises too much influence. From its perspective, the NAIC sees itself as a “standard-setting” organization through which the individual states can exercise their specific regulatory authorities collectively.¹ Commissioners use the NAIC to pool resources, discuss issues of common concern, and align their oversight of the industry. Collective action can enhance as well as constrain the power of individual states. The credence given to NAIC policy positions and its ability to organize its members are substantial levers that help to standardize and strengthen insurance regulatory policies across the country. At the same time, given its voluntary nature, the NAIC has had to be relatively circumspect in deciding when and how it uses these levers. Ultimately, each state determines what actions it will take.

The NAIC supports state regulatory efforts in a number of ways, including:

- Maintaining an extensive insurance database and computer network linking all insurance departments;
- Providing systems that assist regulators, insurers, and intermediaries in performing/navigating regulatory processes;
- Analyzing and informing regulators as to the financial condition of insurance companies;
- Coordinating analysis and regulatory actions with respect to troubled companies;
- Establishing and certifying states’ compliance with minimum financial regulation standards;
- Providing financial, accounting, reinsurance, actuarial, legal, computer, and economic expertise to insurance departments;
- Valuing securities held by insurers;
- Analyzing and listing non-admitted alien insurers;
- Developing uniform statutory financial statements and accounting rules for insurers;
- Conducting education and training programs for insurance department staff;

¹ See NAIC (2012a).

- Developing model laws and coordinating regulatory policy on significant insurance issues; and
- Conducting research and providing information on insurance and its regulation to state and federal officials and the general public.

The NAIC develops model legislation and coordinates regulatory policy through a system of committees, task forces, and working groups that functions much like a legislature. When the NAIC adopts a model law or regulation, each state then determines whether to adopt the model as written, modify it, or reject it. In some areas, such as solvency regulation, there is considerable uniformity among the states in their adoption of related model laws and formulas. In other areas there is less uniformity, as the states are more idiosyncratic in how they choose to regulate insurance pricing, products, and market conduct.

Insurance regulatory functions can be divided into two fundamental areas: 1) financial or solvency regulation and 2) market regulation. Beyond these two fundamental areas, state insurance departments engage in certain other activities, such as providing consumer information to facilitate competition and improve market outcomes. Such activities can be important in promoting regulatory objectives and potentially lessening the need for more intrusive regulatory constraints and mandates. The functional scheme discussed here is relevant to insurance regulation in both the U.S. and in other countries although specific regulatory philosophies and approaches may vary across jurisdictions. The main interest in this paper is financial regulation but other areas of insurance regulation also are addressed.

Protecting policyholders and society in general against excessive insurer insolvency risk is a primary goal of insurance regulation. The social welfare argument for the regulation of insurer solvency derives from inefficiencies created by costly information and principal-agent problems (Munch and Smallwood, 1981).² Owners of insurance companies have diminished incentives to maintain a high level of safety to the extent that their personal assets are not at risk for unfunded obligations to policyholders that would arise from insolvency. The argument is that it is costly for consumers to properly assess an insurer's

² Costly information refers to the fact that it is costly for consumers to acquire information about the financial condition of an insurer and the relative value of its products in relation to its prices. Principal-agent problems refer to the difficulty that a consumer (the principal) faces in monitoring and controlling the activities and financial risk of an insurer (the agent), once the consumer has signed a contract with the insurer and paid premiums for coverage of future claims and benefit obligations.

financial strength in relation to its prices and quality of service.³ Insurers also can increase their risk after policyholders have purchased a policy and paid premiums – a “principal-agent” problem that may be very costly and difficult for policyholders to control.

In theory, solvency regulation should limit the degree of insolvency risk and the magnitude of insolvency costs in accordance with societal preferences. However, there are also costs associated with more stringent solvency regulation. Regulation affects the range of possible values of the risk-return tradeoff involved with insurance transactions among which buyers might choose. Greater flexibility with respect to solvency requirements allows insurers to offer a wider range of possible product/price options and allows consumers to incur greater risk in return for offering lower prices and/or higher benefits. Tighter solvency standards will tend to reduce the supply of insurance and increase its price. Hence, in theory, regulators should seek to enforce an optimal balance between insolvency costs and regulatory costs.

Regulators protect policyholders’ interests by requiring insurers to meet certain financial standards and limiting their financial risk. They also encourage “market discipline” by requiring insurers to file public financial reports that can be accessed by insurance buyers and are also used by rating agencies to issue financial strength ratings.⁴ To accomplish these tasks, insurance regulators are given authority over insurers’ ability to incorporate and/or conduct business in the various states. State statutes set forth the requirements for incorporation and licensure to sell insurance. These statutes require insurers to meet certain minimum capital and other standards, submit financial reports, and authorize regulators to examine insurers and take other actions to protect policyholders’ interests. Insurance commissioners also promulgate regulations to implement their statutory authority that are sometimes subject to legislative approval. Solvency regulation encompasses a number of aspects of insurers’ operations, including: 1) capitalization; 2) pricing and products; 3) investments; 4) reinsurance; 5) reserves; 6) asset-liability matching; 7) transactions with affiliates; and 8) management. It also encompasses regulatory intervention with insurers in financial distress, the administration of insurer receiverships

³ The costs of determining financial soundness are much lower today than they were in the past as anyone with knowledge and access to the Internet can check an insurer’s claims paying ability provided by rating agencies. However, rating agencies cannot engage in enforcement actions (although they may pressure insurers to correct problems) and most countries do not accept the notion that they are an adequate substitute for government regulation.

⁴ Most insurance buyers rely heavily on rating agency opinions that are based on analysis of insurers’ financial reports and other information. Buyers and intermediaries also can access insurance companies’ financial data directly if they wish to perform their own analysis. This would be more likely for “sophisticated” buyers and intermediaries with substantial analytical resources.

(bankruptcies), and insolvency guaranty mechanisms that cover a portion of the claims of insolvent insurers.

In the U.S., the system of state-based regulation delegates the primary responsibility for the financial regulation of an insurance company to the state in which it is domiciled. Other states where an insurer is licensed provide a second level of oversight but, typically, non-domiciliary states do not take action against an insurer unless they perceive that the domiciliary state is failing to fulfill its responsibility. This would typically occur only after discussions between the non-domiciliary states and the domiciliary state. The U.S. system of state-based regulation compels domiciliary regulators to move quickly in dealing with distressed insurers if this proves necessary. The NAIC has developed a peer review process to monitor whether domiciliary regulators are taking appropriate and effective supervisory action toward nationally significant insurers that may be in financial difficulty.

The Financial Analysis Working Group (FAWG) conducts this process and is assisted by the Regulatory Services Division within the NAIC. In this division, financial analysts perform a preliminary review of nationally significant insurers on a quarterly basis and select insurers that warrant a more in-depth review.⁵ For those insurers, the FAWG will review the analysts' reports and then query the domiciliary state on various aspects of each insurer's financial condition and any regulatory actions being taken. If the FAWG determines that the domiciliary regulator is taking appropriate action, then the FAWG may close the file or continue to monitor the company. If the FAWG determines that further measures are warranted, it will recommend appropriate corrective actions to the domiciliary state. If a domiciliary regulator fails to implement the FAWG's recommendations, it will alert other affected states accordingly and coordinate their regulatory response.

The states rely heavily on a number of reports that insurers are required to file, including annual and quarterly financial statements. These financial statements are prepared using Statutory Accounting Principles (SAP) that differ somewhat from Generally Accepted Accounting Principles (GAAP). These financial statements, as well as any other relevant information available regarding the insurer or its entire holding company system, are analyzed by regulators by different means, including using various automated tools and monitoring systems developed by the NAIC and state insurance departments. Financial monitoring occurs at the state level for all insurers and is also performed by the NAIC for nationally significant companies that write business in 17 or

⁵ "Nationally significant" insurers are deemed to be those companies that are licensed in or write business in 17 or more states and have gross premiums (direct plus assumed) written in excess of \$50 million for life/health companies and \$30 million for property/casualty insurers.

more states and have gross premiums (direct plus assumed) written in excess of \$50 million for life/health companies and \$30 million for property/casualty insurers. This analysis typically results in follow up questions to the insurer, but can also trigger more detailed investigation if there are concerns about an insurer's financial condition. Insurers are subject to both periodic on-site exams conducted every three years to five years and targeted exams to address particular questions or issues.

Insurers must meet both fixed minimum and risk-based capital (RBC) requirements. Fixed minimum standards are set by each state and average around \$2 million, but vary based upon the insurer's line(s) of business. Each company's RBC requirement is determined through formulas developed by the NAIC that apply various factors to accounting values. Regulatory capital requirements are discussed in greater detail in Chapter V.

Insurers that fail to comply with regulatory financial standards and/or are deemed to be in hazardous financial condition are subject to regulatory intervention. Regulatory intervention can be formal or informal. Informal actions are generally not public and could include regulatory inquiries, meetings with an insurance company's management, and business or corrective action plans to address issues or problems of concern to regulators. Formal interventions typically involve regulators seizing control of a company and instituting conservation, rehabilitation, and liquidation actions depending on the condition of the insurer and its prospects. It is not uncommon for an insurer's financial statement to be revised when regulators step in and, hence, regulatory measures can progress rapidly from simply controlling an insurer's transactions to its liquidation if restructuring or rehabilitation is infeasible.

The domiciliary regulator is primarily responsible for administering remedial actions or sanctions taken against an insurer, including its receivership, and can exercise a fair degree of discretion with court approval. However, other states where the insurer is licensed can bring pressure to bear on the domiciliary regulator to act more quickly and decisively if warranted. While this dual layer of financial monitoring has likely improved the states' regulation of insurer solvency, there is some evidence that domiciliary regulators have been allowed to exercise too much forbearance in some instances (Grace, Klein, and Phillips, 2002).

Each state has separate guaranty associations for property/casualty insurers and life/health insurers. These associations cover a portion of the unpaid claims obligations of insolvent insurers in their respective states. Only certain lines of insurance are covered and there are maximum dollar coverage limits for each claim with the exception of workers' compensation insurance. Generally, insurance products purchased by individuals and small businesses receive greater

coverage than those purchased by larger commercial insurance buyers. Guaranty association costs are assessed back against the other licensed insurers in a state. The ultimate assessment burden falls on insurance buyers, taxpayers, and the owners of insurance companies (Baresse and Nelson, 1994).⁶

The regulation of an insurer's market practices is principally delegated to each state in which it operates. Hence, each state effectively regulates its insurance markets. The scope of market regulation is broad potentially encompassing all aspects of an insurer's interactions with consumers and the states' policies can vary significantly. State regulation of an insurer's prices or rates is a particularly visible and controversial topic. Rates for personal auto insurance, homeowners insurance, and workers' compensation insurance are subject to some level of regulation in all the states. The extent of price regulation for other property/casualty lines tends to vary inversely with the size of the buyer. The rates for certain types of health insurance may be regulated, but the prices of life insurance, annuities, and related products are only indirectly regulated through the product-approval process.

Insurers' policy forms and products also tend to be closely regulated with the exception of products purchased by large firms. Other aspects of insurers' market activities, e.g., marketing, underwriting, and claims adjustment, generally fall within the area of "market conduct" regulation. A state may impose some specific rules regarding certain practices, such as constraining an insurer's use of certain factors in underwriting or mandating that they offer coverage to all applicants. Beyond this, regulation tends to be aimed at enforcing "fair practices" based on regulators' interpretation of what this means. Monitoring and enforcement activities are typically implemented through analyzing "market conduct statements," investigating consumer complaints, and conducting market conduct examinations.⁷

Insurance producers or intermediaries (i.e., agents and brokers) are also regulated by the states. Producers must be licensed in each state where they sell insurance and are required to pass tests to demonstrate their competence. They

⁶ Taxpayers bear a portion of the burden of guaranty association assessments to the extent that insurers are allowed to take credits against their premium taxes for assessments they receive. Insurers may also deduct guaranty association assessments as a business expense in calculating their income taxes.

⁷ Market conduct statements were introduced in 2002 to collect data that the NAIC contended were not readily available (except through conducting market conduct examinations), such as information on the number of claims opened and closed, policy cancellations, and non-renewals, etc. Beginning in 2011, the NAIC established a central computer system that insurers can use to file their market conduct information without having to submit statements to each state in which they do business.

must also comply with continuing education requirements and are subject to regulatory sanctions if they violate regulations governing their conduct.

Not surprisingly, market regulatory policies and practices are complex and are subject to the greatest criticism by insurers and economists. Further, this is an area where the states most strongly defend their individual authorities and prerogatives. A number of factors influence a given state's policies, including the cost of risk and its political climate, among many others. Economists tend to have greater confidence than regulators and legislators in the ability of competitive insurance markets to produce efficient outcomes. Perhaps more importantly, political interests and social preferences are often at odds with the outcomes that a competitive insurance market would produce, such as risk-based prices.

Insurance Regulation in the European Union

In order to describe insurance regulation in the EU, it is helpful to have a basic understanding of what the EU is. It is a political and economic union of 27 member states primarily located in Europe. Its development began after World War II and it adopted its current name in 1993. The EU functions through a system of "surpranational" institutions and policies negotiated by its member states. These institutions include the European Parliament, the Council of the European Union, and the European Commission. The EU has developed a single market through a standard system of laws that apply in all member states to enable people, goods, services, and capital to move freely among member states. While the EU has taken steps to develop a more standardized system of financial regulation among its member states, some observers argue that financial regulation remains fragmented with varying regulations and supervisory authorities within the member states (Stichele, 2008). Solvency II is an EU directive that seeks to codify and harmonize insurance regulation among member states.

The "new" system for the financial regulation of insurance in the EU is being established under its Solvency II directive. Solvency II employs a three-pillar approach similar to but not the same as the Basel II accords. Pillar I establishes quantitative requirements for the calculation of technical provisions, investment rules, asset-liability management, and capital requirements. Pillar II refers to the supervisory review of an insurer's internal controls and risk management. Pillar III pertains to disclosure requirements aimed at increasing the transparency of an insurer's financial condition and risk management to promote stronger market discipline.

Considerable attention has been focused on the capital requirements and technical provisions that will be established under Pillar I of Solvency II. They are discussed in some detail in Chapter V. Less attention has been paid to the other elements encompassed under Pillar I. Most significantly, under Pillar I of the Solvency II directive, quantitative investment limits and asset eligibility will be eliminated. The rationale for this step is threefold: 1) the new valuation standards take due account of the credit and liquidity characteristics of assets; 2) the Solvency Capital Requirement (SCR) captures all quantifiable risks; and 3) all investments are subject to the “prudent person” principle. If new risks emerge that are not covered by the SCR, the European Commission has the authority to adopt temporary investment limits and asset liability criteria while the standard formula is being updated.⁸

Pillar II addresses what have been described as the qualitative requirements that will be implemented under Solvency II. EU regulators recognized the need for qualitative assessment in addition to the quantitative requirements encompassed in Pillar I. This need was highlighted by the results from a study of insurer failures (and a larger set of near failures) in the EU conducted for the Conference of Insurance Supervisory Services of the Member States of the European Unions (Sharma, 2002). This study, commonly known as the Sharma Report, demonstrated that the fundamental causes of insurer insolvencies are management error rather than undercapitalization. In a subsequent paper, Ashby, Sharma, and McDonnell (2003) recommended a number of regulatory responses to bolster internal controls, most of which involve on-site inspections, offering expert advice, and similar actions that respond to specific situations rather than imposing universal requirements. The changes contemplated under Pillar II are discussed in greater detail in Chapter VI.

Pillar III addresses insurers’ financial reporting and disclosure requirements with respect to its risk and capital adequacy with the ultimate objective of enhancing market transparency and discipline. Arguably, this is an area that has probably not been a priority in many EU countries in contrast to the U.S. Hence, it will be interesting to see how Pillar III will be implemented, the kinds of information that will be made available to the public, and the accessibility of this information to various users with different levels of sophistication.

⁸ The “standard formula” refers to one of two approaches that an insurer will be able to utilize to determine its regulatory requirements. The other approach is the use of an internal model that would be more customized to fit an insurer’s particular financial structure and risks. Under the standards being developed under Solvency II, insurers may use a standard model developed by regulators, an internal model, or a combination of both.

It is difficult to provide a detailed description of market regulation in the EU due to the lack of readily accessible summaries and academic studies on this topic. It is possible to make the observation that, since the mid-1990s, financial service markets in the EU have been subject to significant deregulation. With respect to insurance, the EU's Third Generation Insurance Directive in 1994 caused substantial changes in insurance markets. Prior to that time, insurance products in the EU were heavily regulated. Insurers were required to comply with tight constraints on contract provisions to promote uniformity and limit competition (Farny, 1999; Rees, et al., 1999). Regulation of insurance prices and insurers' profits also was very common. The 1994 directive significantly changed the environment and resulted in intense price competition, lower profits, and pressures to reduce costs (Hussels and Ward, 2006).

Direct rate regulation was common in the EU until 1994 but was terminated with the Third Generation Insurance Directive (Eling, Klein, and Schmit, 2009). Some member countries, however, still regulate other aspects of insurance pricing such as rating factors. One example is the automobile insurance bonus-malus system in France (Dionne, 2001). While auto insurance rates are not explicitly regulated, premiums are adjusted by a bonus-malus coefficient set by law that considers a driver's past experience. Also, in March 2011, the European Court of Justice banned gender-based pricing of insurance. Hence, while insurance pricing in the EU has largely been deregulated, some constraints still exist that affect insurers' ability to implement full risk-based rates.

Many EU member countries also still regulate contract law, which results in country-specific differences. EU legislators have sought to harmonize contract law but their efforts have been significantly hampered by the different histories and legal systems in the EU member countries. Hence, the provisions of insurance contracts can vary substantially across the EU. For example, contracts can differ in terms of their provisions governing withdrawal, disclosure, and documentation. Mandatory offer requirements for auto liability insurance are effectively in place in Germany, Denmark, and Italy (Eling, Klein, and Schmit, 2009).

Chapter II

Forces Motivating U.S. Regulators Toward Modernizing Solvency Regulation

Driving Forces

There are several internal and external forces influencing U.S. insurance regulators' interest in "modernizing" various aspects of solvency regulation. It is important to understand what these forces are and how they may be influencing U.S. regulatory initiatives and the policies that will ultimately be adopted. In a perfect world, U.S. regulators would likely prefer to be motivated only by what they believe is necessary to achieve and maintain an efficient and effective regulatory structure. However, external pressures may compel them to adopt policies that vary from or go beyond what they believe is necessary.

U.S. insurance regulation has a long history and an impressive record of reform. One can find episodes where a particularly significant set of reforms was developed and adopted over a relatively short period of time. These "waves of reform" can be prompted by industry developments and problems. When these developments occur, such as a significant increase in the number and cost of insurer insolvencies, U.S. regulators may see the need to improve regulation to address perceived deficiencies in regulatory systems.

A good example is the set of financial regulatory reforms that was adopted in the late 1980s and early 1990s. These reforms came about in the wake of a substantial spike in the number and cost of property/casualty and life/health insurance company insolvencies. Property/casualty insurer insolvencies began rising in 1984, peaked in 1991 at 60, and then tailed off to pre-1984 levels by 1995 (see Figure 1). The spike resulted primarily from the soft-market conditions in the early 1980s and a sharp rise in liability claims that began in the mid-1980s. Problems in the life insurance sector also became apparent as the number of life/health insurance insolvencies began rising in the late 1980s and peaked at 80 in 1991. The problems in this insurance sector stemmed primarily from declining asset values, especially in non-investment grade bonds and real-estate-related assets, as well policy lapses and terminations due to rising interest rates.

These developments required some form of regulatory response. Regulators responded with a number of reforms including risk-based capital requirements, enhancements to early warning systems, improved examination procedures, limitations on certain asset classes, the development of the Financial Regulation Standards and Accreditation Program, and the codification of statutory

accounting principles, among other changes. Arguably, regulators would have undertaken many of these reforms without external prodding but an intensive congressional investigation added further pressure. It is impossible to know what regulators would have done absent federal pressure, but it is reasonable to surmise those pressures speeded the adoption of reforms if not their scope.⁹

This was followed by a period of relative stability during which the financial regulation of U.S. insurance companies continued to evolve at a slower pace. The regulatory changes during this timeframe might be best characterized as fine tuning and enhancing the existing system rather than fundamental reform. This period ended with the onset of the financial crisis in 2007. While there is a general consensus that the core activities of insurance companies were not significant contributors to the crisis, they did feel its effects, particularly in the life sector (Grace, 2010; Cummins and Weiss, 2010).¹⁰ Several life insurers were particularly stressed because of their substantial investments in mortgage-backed securities and other real-estate-related assets (Wang, et. al., 2009).¹¹ As the crisis triggered a severe economic recession and a precipitous fall in stock prices, both life and non-life insurers suffered further asset losses. Some took advantage of government programs to bolster their capital.

While these developments did not trigger a wave of insurer insolvencies, they raised concerns about the regulation of financial institutions, including insurance companies and non-bank holding companies. This prompted U.S. insurance regulators to reconsider some elements of the supervisory framework for insurance companies as well as to respond to new federal regulations that could potentially identify certain insurance companies as “systemically important” and subject them to greater regulation by the Federal Reserve.¹² However, some would argue that international developments in insurance regulation were a more significant factor in motivating U.S. regulators to explore changes to the

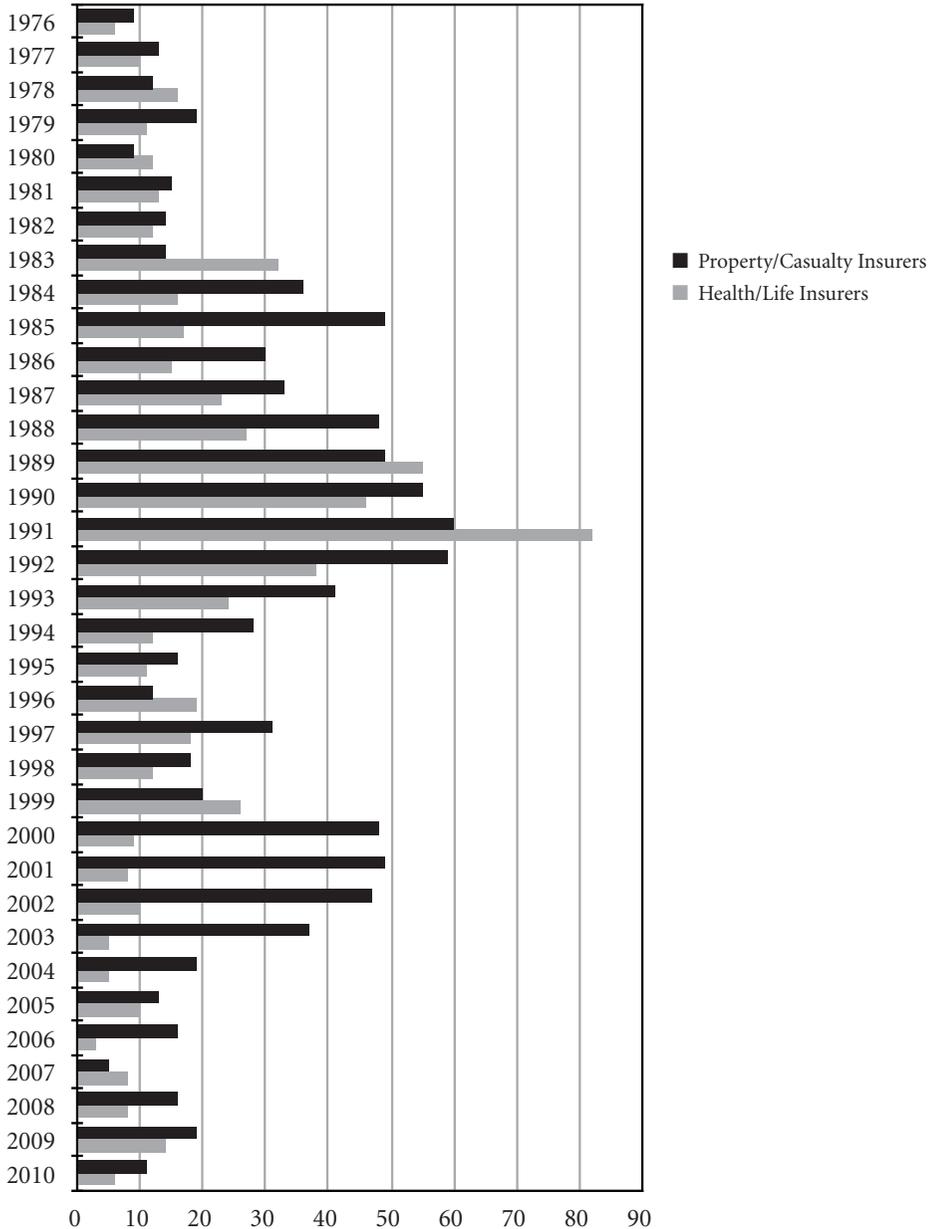
⁹ As chief economist at the NAIC during this period, I was well aware of state regulators’ desire to stave off federal intervention. My impression was and still is that regulators believed in the inherent merits of the reforms that were enacted but the threat of federal intervention helped push these reforms through at a faster pace.

¹⁰ The American International Group (AIG) received prominent attention because of its losses on credit default swaps due to the activities of its investment subsidiaries and not its insurance operations. Some insurance companies, including insurers affiliated with AIG, did suffer losses from their securities lending activities. Also, financial guaranty insurers suffered severe losses due to their issuance of credit default swaps and mortgage insurance. In Europe, Swiss Re suffered significant write-downs in the value of its assets due to its issuance of credit default swaps and investments in mortgage-backed securities.

¹¹ A number of life insurers were also squeezed by lower returns on their investments and the guarantees embedded in their variable annuity products.

¹² See Harrington (2011) for a discussion of the implications of the Dodd-Frank Act and related regulations for certain insurance companies that could be deemed systemically important and subject to increased regulation by the Federal Reserve.

Figure 1
 Insurance Company Impairments
 Property/Casualty and Life/Health Insurers



Source: A.M. Best

U.S. system for insurance solvency regulation. These developments include changes being made by specific international regulators and, more broadly, standards developed by the International Association of Insurance Supervisors (IAIS). Additionally, the standards developed by the IAIS are utilized by the International Monetary Fund in its Financial Sector and Assessment Program. However, many focus on the impact of the EU's Solvency II, as well as greater federal interest in insurance regulation, and these developments could be adding some impetus to state regulatory initiatives as discussed below. In particular, the establishment of the Federal Insurance Office (FIO) in 2010 has increased the pressure on the National Association of Insurance Commissioners, as the FIO has been charged with recommending reforms to the U.S. insurance regulatory system as well as representing the U.S. in international negotiations on insurance regulatory matters.

It also should be noted that industry views on proposed regulatory reforms play an important role. Regulators seriously consider industry positions and may be reluctant to adopt changes that face strong industry opposition. The NAIC often operates like a political organization and will weigh the political capital needed to adopt any particular initiative at the state level against its own members' sense of the desirability of that initiative. If the industry makes a persuasive argument that a particular initiative has serious technical flaws and/or will have severe negative repercussions on insurers and insurance markets, this could impede either NAIC adoption or state adoption of the initiative.

The NAIC Solvency Modernization Initiative (SMI) includes a review of international developments regarding insurance supervision, banking supervision, and international accounting standards and their potential use in U.S. insurance regulation.¹³ U.S. regulators' interest in international regulatory developments might be characterized in two different ways. One characterization could be that U.S. regulators are simply interested in looking at international developments to identify potential improvements in U.S. regulation that they believe have inherent merit. A second characterization is that they feel some pressure to adopt certain methods or practices to meet international standards or forestall conflicts over "regulatory equivalency" even though they may question the inherent merits of these measures. These two characterizations of U.S. regulators' motivations with respect to international developments are not mutually exclusive.

It seems reasonable that U.S. regulators would seriously consider adopting elements or methods of international regulatory systems that they believe

¹³ See NAIC (2010).

are inherently sensible and desirable. It is more difficult to speculate on whether they might succumb to external pressures to adopt measures that go beyond this. In the author's opinion, U.S. regulators will strongly resist external pressures to adopt any regulatory changes that they do not believe are appropriate for the U.S. market. However, it is possible that pressure from the international community or the federal government could cause them to deviate from their "internal compass" if they believe they have no other choice.

An important issue that U.S. regulators will have to deal with is assessments of "regulatory equivalence." When a foreign insurer seeks to do business in a given country that country must judge whether the regulation of that insurer by its host country is equivalent to its own regulation. If the regulation of the foreign insurer is deemed equivalent, then it would not be subject to additional regulatory requirements. If the regulation of the foreign insurer is not deemed equivalent, then it may be subject to additional regulatory requirements.

To facilitate cross-border trade in insurance, the U.S. has a strong interest in having its regulatory system deemed equivalent to other jurisdictions. However, this issue has created some tension between the U.S. and the European Union (EU). Previously, the EU had signaled that it did not view U.S. regulation as being equivalent as contemplated under Solvency II. This was implied by the EU's decision to exclude the U.S. from the first round of countries assessed for regulatory equivalence.¹⁴ This suggests that there has been some difference of opinion between the U.S. and EU over what would constitute regulatory equivalence. At the same time, there is an ongoing discussion and negotiation between U.S. and EU regulators over this issue that could lead to a resolution considered satisfactory by both sides. It should be noted that NAIC's Chief Executive Officer Therese Vaughan has stated that she believes the U.S. system will be deemed equivalent to the EU's regulatory system under Solvency II.¹⁵

Approach and Philosophy

The approach to overseeing the financial condition and risk of insurance companies should be foremost in any discussion of regulatory policies. One can contrast two basic approaches to insurance solvency regulation: 1) a "prescriptive" or "rules-based" system and 2) a "principles-based" system. In the U.S., the various states have generally applied a prescriptive approach to regulating insurers' financial condition that is heavily influenced by financial reporting. This is reflected in an extensive set of laws, regulations, rules,

¹⁴ The countries selected for this first review are Switzerland, Bermuda, and Japan.

¹⁵ See "NAIC CEO: US Will Gain Solvency II Equivalence," BestWire Services, November 14, 2011.

and other measures that govern insurers' financial structure and actions.¹⁶ Historically, U.S. regulators have tended to focus on insurers' compliance with these prescriptions rather than the prudence of their management and actions and their overall financial risk. Having said that, the U.S. system has become more risk-focused over the last couple of decades and now specifically considers management's actions within the financial analysis and financial examination process. It is likely the U.S. approach will continue to evolve with the implementation of reforms contemplated under the SMI as discussed below.

Unlike the U.S., many European countries such as the United Kingdom (UK) have more strongly embraced or are moving toward a principles-based approach to insurance regulation.¹⁷ In such a system, emphasis is placed on insurers maintaining an adequate "solvency margin" and the competence and judgment of an insurer's management and actions, with an insurer's financial risk being the ultimate point of focus for supervisors. Hence, regulators must pay close attention to how well insurers are managed and exercise significant discretion in the actions or interventions they may employ to correct practices or problems as they deem necessary. In theory, this approach should allow insurers greater freedom in managing their affairs as long as they use that freedom judiciously, do not engage in excessively hazardous ventures or transactions, and ultimately keep their financial risk within reasonable bounds. This philosophy is embodied in the EU's collective insurance solvency initiatives that set common standards for all EU member countries.¹⁸

Proponents of the prescriptive approach might argue that it is preferable to have a detailed set of rules to govern insurers' financial structure and actions for which compliance can be readily determined. Their concern might be that too little emphasis on rules and too much emphasis on principles would give insurance companies too much discretion and some might abuse this discretion and take on excessive risk to the detriment of policyholders and other creditors. The drawback of a prescriptive approach is that it potentially establishes a set of constraints that may not be optimal for a given insurer. Further, regulators are compelled to engage in a torturous process of amending and expanding their rules over time as circumstances change and new sources of financial risk arise. Proponents of a principles-based approach might argue that it gives insurance

¹⁶ See, for example, Eling, Klein, and Schmit (2009) for an assessment and comparison of U.S. and EU insurance financial regulation. Work on Solvency II continues as the European Commission and the European Insurance and Occupational Pensions Authority address outstanding issues and finalize the technical specifications that will underlie Solvency II standards and practices. Associated reports and technical documents are available at http://ec.europa.eu/internal_market/insurance/solvency/index_en.htm and <https://eiopa.europa.eu/>.

¹⁷ See Tiner, 2007.

¹⁸ See Eling, Schmeiser, and Schmit (2007) and Elderfield (2009) for a more detailed review of EU solvency initiatives.

companies greater flexibility in managing their financial risk according to certain established standards, and regulators can employ greater discretion in taking appropriate actions against insurers that take on excessive financial risk. Proponents might also contend that this approach gives insurance companies greater incentives to manage their financial risk within acceptable parameters. In theory, this approach would seem to be more efficient and properly focused on the overall financial risk of an insurer rather than its mere compliance with an arbitrary set of rules. However, in practice, the success of a principles-based approach depends heavily on the principles and standards that are set and the competence and motivation of regulators to take corrective action when it is warranted. Regulators in the UK would probably argue that they have met that test, although there have been some criticisms of how its Financial Service Authority (FSA) has dealt with certain incidents.¹⁹ As the Solvency II initiative is implemented, there will be an opportunity to see how well a principles-based approach works when it is employed on a wider scale.

It should be noted that U.S. regulators are taking steps toward adopting some aspects of a principles-based approach and increasing their emphasis on financial risk (Vaughan, 2009).²⁰ As this process continues to evolve, U.S. insurance regulation appears to be evolving into a hybrid system that employs some elements of a rules-based approach and some elements of a principles-based approach. It is difficult to speculate at this time as to what this hybrid system will eventually look like. In the EU, under Solvency II, the intent is to reduce the number of rules in areas where it is believed that principles will provide an appropriate guide to both regulators and insurers as to how insurers will be expected to conduct their activities and manage their risk. In the U.S., there is the danger that principles will be layered on top of existing rules (or even more rules) and, hence, there will not be any reduction in the rules that insurers must comply with. Regulators might view this as the best of both worlds but insurers would likely view this as simply more regulation without any gains in regulatory efficiency or flexibility in how they conduct their business and manage their risk.

Capital Requirements

Capital requirements constitute the foundation for the financial regulation of insurance companies as well as banks. Insurer capital requirements can take several forms. Prior to the 1990s, fixed capital requirements were common. During the past 15 years, most major developed economies have moved toward

¹⁹ See, for example, European Parliament (2007).

²⁰ Vaughan (2009) argues that “the optimal structure of insurance supervision is likely to be a combination of a rules-based and principles-based approach.”

some form of risk-based approach in determining how much capital an insurer is required to hold for regulatory purposes (Chandra-Shekar and Warriar, 2007; Eling, Klein, and Schmit, 2009).²¹ Using this approach, regulatory capital requirements may be determined by simple or complex formulas or the use of internal or standard models.

In the U.S., insurers are subject to fixed capital requirements set by each state as well as uniform risk-based capital (RBC) standards based on complex formulas promulgated by the NAIC that have been adopted by every state.²² There are different formulas for property/casualty, and health/life insurance companies. In the RBC formulas, selected factors are multiplied times various accounting values (for example, assets, liabilities, or premiums) to produce RBC charges or amounts for each item. Currently, the only stochastic modeling employed in the U.S. system is in the life RBC formula.²³ In the NAIC RBC formula, charges are summed into several “baskets” and then subjected to a covariance adjustment to reflect the assumed independence of certain risks. The basic formula for property/casualty insurers is shown below:

- R0: Investments in affiliates
- R1: Fixed-income assets (interest rate and credit risk)
- R2: Equity assets (market value risk)
- R3: Credit (risk associated with reinsurance recoverables)
- R4: Loss reserves (risk associated with adverse loss development)
- R5: Premiums (risks of underpricing and rapid growth)

$$ACLRBC = 0.5[R0 + \sqrt{R1^2 + R2^2 + R3^2 + R4^2 + R5^2}]$$

The RBC formula accounts for asset risks (components R1, R2, and R3) and insurance risks (components R4 and R5). There is also a component for the risk of default by affiliates and off-balance-sheet items, such as derivative instruments and contingent liabilities (R0). R1 accounts for the primary risks associated with fixed-income investments – the risk of default (i.e., credit risk) and the risk of declines in asset values due to interest rate changes. In calculating R1 charges, assets are categorized by “credit quality,” and the factors applied vary inversely with quality. The R2 component sets charges for the risks associated with the declining value of other investments, such as stocks or real estate, and assigns

²¹ Also see Holzmuller (2009) for a comparison and critique of capital standards in the U.S. and European Union (Solvency II).

²² An insurer is required to have capital that meets or exceeds the higher of the two standards.

²³ In 2000, the NAIC introduced a model-based component to assess the interest rate risk associated for fixed annuities. In 2005, this approach was extended to assess the market risk, interest rate, and expense-recovery risk of variable annuities.

selected factors to account for these risks. The R3 component accounts for the credit risk associated with reinsurance recoverables and other receivables. The R4 component reflects the risk associated with adverse loss reserve development, and different factors are assigned for different lines of business based on their historical loss development patterns. Finally, the R5 component accounts for “underwriting risk,” which is the risk that premiums collected in a given year may not be sufficient to cover the corresponding claims that arise from the business that is written. Different factors are also assigned in the R5 calculation for different lines of business based on historical loss ratios. The formula is much more complex than this simplified description indicates, but delving into its complexities is beyond the scope of this paper.²⁴

The covariance adjustment assumes that the R1 through R5 risks are independent but that the R0 risk is correlated with the other risks. This is an arbitrary assumption that is not necessarily consistent with reality (Butsic, 1993). The NAIC is currently working on a more refined approach to better reflect the degree of correlation between risks and to allow for correlations between 0 and 1. Some readers might be curious about the rationale for multiplying the summed risk charges by 0.5. This adjustment was simply intended to increase the publicly reported RBC ratios for insurers that are calculated by dividing their RBC amount by their Total Adjusted Capital (TAC). This formula effectively produces an insurer’s “Authorized Control Level” RBC, which is explained further in this section. As discussed below, an RBC ratio of less than 200 percent requires “company action.” Hence, the operative RBC amount is twice the formula result, which negates the effect of the 0.5 adjustment in terms of regulatory compliance. Other than increasing the reported RBC ratio for a given company, it has no substantive importance in terms of how regulators use the RBC ratio to determine whether any company or regulatory action is required.

An insurer’s calculated RBC amount is compared to its actual TAC to determine its RBC position. A company’s TAC is based on the actual amount of capital that it holds subject to certain adjustments that pertain primarily to life insurance companies. If a company’s TAC exceeds a specified percentage of its RBC, then no regulatory or company action is required. If a company’s TAC falls below a specified percentage of its RBC, then certain company and regulatory actions are required depending on the degree of the company “capital deficiency.” Four RBC levels for company and regulatory action have been established, with more severe action required for companies as they reach lower levels (see Table 1). An insurer falling between the highest level (company-action level) and the second-highest level (regulatory-action level) is required to explain its financial condition and how it proposes to correct its capital deficiency to regulators. When an insurer

²⁴ See Feldblum (1996) and NAIC (2011) for more detailed descriptions of the RBC formula.

slips below the second level, regulators are required to examine the insurer and institute corrective action, if necessary. Between the third level (authorized-control level) and fourth level (mandatory-control level), regulators are authorized to rehabilitate or liquidate the company. If an insurer’s capital falls below the lowest threshold, regulators are required to seize control of the insurer.

**Table 1
RBC Action Levels**

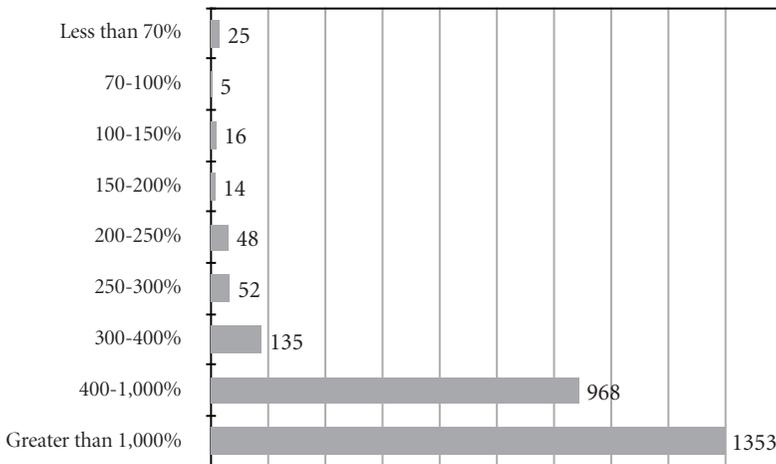
Action Level	Percent of ACL	Requirements
Company Action	200	Company must file plan.
Regulatory Action	150	Commissioner must examine insurer.
Authorized Control	100	Commissioner authorized to seize insurer.
Mandatory Control	70	Commissioner required to seize insurer.

As revealed in Figure 2, most insurance companies exceed considerably their RBC requirements. In 2010, only 60 property/casualty insurers fell below the company-action level. One hundred insurers had RBC ratios between 200 percent and 300 percent; 1,103 insurers had ratios between 300 percent and 1,000 percent; and 1,353 insurers had ratios that exceeded 1,000 percent.

Whether the NAIC has set the bar too low with respect to the amount of capital insurers are required to hold for regulatory purposes is a matter of opinion. Further empirical analysis of the effectiveness of the U.S. RBC system would be helpful in evaluating its stringency as well as its accuracy in identifying insurers that warrant some form of regulatory intervention, ideally before they become insolvent and impose bankruptcy costs on guaranty associations and unsecured creditors. However, it should be noted that U.S. regulators have authority beyond insurers’ regulatory capital requirements that allow them to take action before an insurer falls within an RBC action level. Further, RBC is only one among a number of tools that regulators use to monitor the financial condition and risk of insurance companies that can prompt corrective regulatory action before an insurer’s capital falls below its RBC action level. The NAIC also indicates that RBC uses a standardized formula in order to increase the auditability of the formula and that its primary purpose is to benchmark specified levels of regulatory actions for weakly capitalized insurers.

There have been several empirical studies of the accuracy of U.S. RBC ratios in “predicting” which insurers will fail or become insolvent. These studies have generally concluded that RBC has minimal predictive power when compared with other measures of insurers’ financial risk.²⁵ While these studies raise questions about the accuracy of U.S. RBC in measuring the risk profile of an insurer, they do not constitute an explicit test of its effectiveness in achieving its regulatory objectives.

Figure 2
Distribution of Property/Casualty Insurers
by TAC/RBC: 2010



Source: NAIC database, author’s calculations.

Considerable attention has been focused on the capital requirements that will be established under Pillar I of Solvency II. Since 1973, non-life insurers in the EU were required to maintain a solvency margin (i.e., the amount of an insurer’s assets in excess of its liabilities) based on its premiums or claims with an offset for reinsurance. Under Solvency I, which took effect in 2004, the required margin is the greater of: 1) 18 percent of premiums written up to €50 million plus 16 percent of premiums written above €50 million; or 2) 26 percent of claims up

²⁵ See Cummins, Harrington, and Klein (1995); Grace, Harrington, and Klein (1998); Cummins, Grace, and Phillips (1999); and Pottier and Sumner (2002).

to €35 million plus 23 percent of claims above €35 million.²⁶ In calculating the solvency margin, the premiums from the marine, aviation, and general liability lines of business were increased by 50 percent.

While these changes were viewed as desirable, it was generally recognized that they were an inadequate response to the need for a system that better matched solvency to risk. Solvency II was undertaken to establish a much more comprehensive structure for EU insurance regulation that encompasses but is not limited to a much more advanced approach to determining insurers' capital requirements.

When the EU embarked on its mission to develop a common set of capital standards under its Solvency II initiative, it was positioned to take advantage of the advances in risk analysis and modeling that have occurred since the NAIC developed the U.S. RBC capital standards. A primary goal of Solvency II is to develop and implement harmonized risk-based capital standards across the EU. The intent is to take an enterprise risk management (ERM) approach toward capital standards that will provide an integrated solvency framework that covers all significant risk categories and their interdependencies (Eling, Klein, and Schmit, 2009).

Based on the Solvency II directives that have been adopted to date, there will be two levels of regulatory capital requirements. The first level is the minimum capital requirement (MCR) that is the minimum amount of capital that an insurer would be required to hold below which policyholders would be subject to an "unacceptable" level of risk in the view of regulators. An insurer that fails to meet its MCR would be subject to immediate regulatory intervention. The second level is the solvency capital requirement (SCR), also known as "target capital," that is intended to represent the economic capital needed by an insurer to meet its claims obligations within a prescribed safety level. The economic capital for a given insurer will be derived by using a value-at-risk (VaR) calibration at a 99.5 percent confidence level over a one-year time horizon.²⁷

The SCR will encompass all risk categories that are viewed as significant by regulators, including insurance, market, credit, and operational risk as well as risk mitigation techniques employed by insurers (e.g., reinsurance and securitization). An insurer that falls between its MCR and SCR *may be* subject to regulatory action based on regulators' determination of whether corrective steps are warranted. The MCR would be calculated using a simplified modular

²⁶ The amount of premiums is based on an insurer's receivable premiums in the previous year, and the amount of claims is based on the average amount of claims incurred in the previous three years.

²⁷ This is essentially equivalent to limiting an insurer's probability of default to 0.5 percent.

approach calibrated at an 85 percent VaR confidence level subject to a corridor of 25 percent-45 percent of an insurer's SCR and a monetary minimum floor.

EU regulators are considering the use of both standard and internal models or some combination of both to calculate the MCR and the SCR. In the standard model, the capital charges for various risk classes would be calculated using a combination of stress tests, scenarios, and factors. The standard model includes underwriting risk, market risk, credit default risk, and operational risk, based on aggregations of sub-risks, such as market interest rate risk and non-life underwriting catastrophe risk. Capital charges are determined using a bottom-up approach, where the capital required to meet the 95.5 percent VaR target is first calculated for each sub-risk, then aggregated to compute a total company SCR using a prescribed correlation matrix.

The advantage of a standard model is that it may be less burdensome for an insurer because it will not require it to invest the resources that would be needed to develop an internal model that would be more specific to its particular risk characteristics. Another advantage that some might see in a standard model is that it is developed by regulators and determines insurers' capital adequacy using a common set of metrics. The disadvantage of a standard model is that it would not reflect an insurer's particular risk characteristics as well as an internal model, although it is contemplated that an insurer would be allowed to customize some of its parameters.

An internal model would be developed by an insurer to better fit its particular circumstances and needs subject to certain standards established by regulators. Large insurers will probably be more likely to opt for an internal model while small and medium-sized insurers may be more likely to adopt a standard model because of resource considerations. It should be noted that an insurer will need regulatory approval to be allowed to use an internal model to determine its capital requirements. Some analysts have raised the concern that internal models can be subject to modeling errors and also potentially invite "gaming of the system" and regulatory arbitrage (Vaughan, 2009; Cummins and Phillips, 2009). Cummins and Phillips (2009) suggest that standardized regulatory models could be used as a check against such problems and abuses. Alternatively, regulators would need to validate the internal models used by insurers, which could prove to be challenging, or otherwise employ more stringent corporate governance standards that some might view as being too intrusive.

The starting point for both standard models and internal models is a harmonized solvency balance sheet valued according to market-consistent principles. In constructing an economic balance sheet, it is necessary to calculate the market values of an insurer's assets and liabilities. An insurance company's

solvency margin would be equal to the market value of its assets minus the market value of its liabilities. Estimating the market value of assets is an easier task to the extent that it is possible to determine current asset prices from financial market data. The calculation of the value of liabilities, referred to as the “technical provisions,” would be based on the current amount that an (re)insurer would have to pay if it were to transfer its insurance and reinsurance obligations immediately to another (re)insurer. The technical provisions constitute the best estimate of the liabilities plus a risk margin. To achieve a market-consistent valuation of risk will require the use of appropriate financial methods that reflect the uncertainty associated with future cash flows. Future cash flows must be estimated and adjusted for risk by reducing the cash flows and discounting with a risk-free interest rate or by discounting with a risk-adjusted discount rate (Eling, Klein, and Schmit, 2009).

The EU has been subjecting both standard models and internal models to a series of quantitative tests to assess their performance and potential impact on insurers. These tests have revealed potential issues and flaws in these models as well as generated regulatory and industry comments. A number of insurers have expressed significant concerns regarding the impact of the new capital standards on their operations and financial structures. As a consequence, there have been adjustments to the technical specifications for determining insurers’ capital requirements – a process that is taking longer to conclude than originally contemplated. In 2011, the final standards were projected to be adopted in 2012, implemented in 2013, and enforcement begun in 2014. However, there are indications that this timetable could be delayed, perhaps by as much as a year or more (Stricker, 2012).

Arguably, the U.S. approach to determining risk-based capital requirements reflects both the heights and the limits to what can be achieved with a formula-based method. When first adopted, the U.S. system was considered relatively advanced when compared to how regulatory capital requirements were determined in other countries and was seen as a significant improvement over fixed capital requirements. However, in the view of this author, relying on static formulas to determine how much capital an insurer should hold seems outmoded in light of the advances that have occurred in dynamic financial analysis and the use of models to assess and manage insurers’ financial risk. Some academics such as Holzmüller (2009) and Cummins and Phillips (2009) have criticized the reliance on static formulas in the U.S. system and its failure to make more extensive use of stochastic modeling and scenario testing.

Cummins and Phillips (2009) argue that the U.S. system is out of date when compared to how capital requirements will be determined under Solvency II and the Swiss Solvency Test (SST). They observe that the U.S. system is static and

ratio-based whereas the European systems are dynamic and model-based. They further contend that U.S. RBC takes a “one-size-fits-all” approach contrary to Solvency II and the SST that can be geared to individual company characteristics. Additionally, while not all risks can be quantified, the U.S. RBC formula omits some that can be, such as operational and catastrophe risks, using methods currently available. The omission of catastrophe risk from the U.S. RBC formula has been a matter of considerable attention, and the NAIC has been working on a catastrophe component to the RBC requirements for property/casualty insurers for several years.

In theory, a model-based approach to determining regulatory capital requirements for insurance companies has the potential of being superior to a formula-based approach. A model-based approach has the desirable attributes of compelling insurers to take a more forward-looking and comprehensive view of their financial risk and determining a regulatory capital amount that is better tailored to fit a particular insurer’s specific needs and circumstances. Many insurers are already performing capital modeling and incorporating ERM practices in their risk management activities. Hence, a model-based approach would seem most consistent with the regulatory goal of employing best practices to ensure that regulatory policies and standards are effective and efficient.

However, in practice, a model-based approach may have some drawbacks. Even the most sophisticated approaches to capital modeling are imperfect and their performance is dependent on a number of factors including model inputs and assumptions (Wang, et. al., 2009).²⁸ Further, compelling insurers to use models to determine their capital requirements will require them to invest in additional resources that could be costly, especially for insurers that are not currently using capital models. Also, a model-based approach places additional demands on regulators by requiring them to develop reasonable standards for evaluating insurers’ model results. Additionally, as noted above, there is the concern that internal models are subject to errors in modeling certain risks and moral hazard. Finally, there is the risk that regulators will rely too heavily on capital requirements and not give adequate attention to other components of a sound and comprehensive financial regulatory system.

It also should be noted that while many analysts view the approach to setting capital standards in the EU’s Solvency II initiative as superior to the current U.S. RBC formulas, the EU approach is not immune to criticism. Holzmuller (2009) compared and evaluated U.S. RBC, Solvency II, and the SST based on eleven criteria. She concluded that U.S. RBC only partially satisfied three of the criteria

²⁸ Vaughan (2009) asserts that internal models should be an adjunct to a rules-based capital requirement that establishes a floor for the amount of capital that an insurer would be required to hold for regulatory purposes.

and that Solvency II fully satisfied three of the criteria and partially satisfied the remaining eight criteria. With respect to Solvency II, she highlighted concerns with respect to factor-based calculations within parts of the standard approach model, the use of the value-at-risk concept that does not incorporate the distribution of costs in the event of insolvency, and inadequate consideration of management risk.

The NAIC is currently considering changes to its methods for determining insurers' capital requirements under its SMI. In 2011, the Capital Adequacy (E) Task Force indicated that it will continue to evaluate RBC formulas, factors, and methodology, concentrating first on priority risks and the method to combine risk charges (i.e., the "square root formula"). Its priority risks include the following:

- Introduction of an explicit property/casualty catastrophe risk charge;
- Increased granularity in the asset and investment risk charges (the C-1 factor review); and
- Refinement of the credit risk charge for reinsurance recoverables.

The NAIC has generally rejected the idea of an economic capital requirement akin to the SCR under Solvency II. However, the NAIC has recently adopted its Own Risk and Solvency Assessment (ORSA), which will require among other things, the confidential disclosure of the amount of capital an insurance group believes it needs to achieve its business objectives. The purpose of such information is not to establish minimum requirements for the insurer, but rather to understand such an assessment in order to facilitate more effective regulation of the insurance company. However, unlike the SCR within Solvency II, which can be established either by using a standard model or by using an internal model, the U.S. has chosen an approach through its ORSA requirement that gives greater flexibility to an insurer in determining the adequacy of its group capital. One could argue that both methods lead to the same result: a dialogue between the insurer and the regulator to determine the appropriate level of capitalization for a specific business plan set by the insurer. Many believe that this dialogue, conducted annually and over years of different economic cycles, is what is most important. Clearly, both U.S. insurers' models and EU models can never be expected to reflect the unforeseen risks that can arise, just as most models of banks did not reflect the kinds of events that contributed to the financial crisis between 2007-2009. What is important, however, is how management reacts to the issues it confronts and evaluates the need for additional changes to address the unforeseen risks that might arise. Some reactions are/will be better than others, and it is these reactions, and the rigor of an insurer's risk management

process, that U.S. regulators are expected to be looking at most closely, rather than the extent to which a pre-approved model or standard scenario provides a specific level of confidence. At the same time, it should be noted that the U.S. ORSA requirement only requires a group capital assessment. It contains no provision for individual company capital calculations, although they may be reflected in the group capital. Further, given the flexibility provided in the ORSA requirement and the lack of regulatory capital models, U.S. regulators will face significant challenges in evaluating the capital assessments provided by insurers.

As discussed above, the regulators' role is not to create an environment in which there is no possibility of insolvency, but rather to allow the marketplace to operate effectively and, to the extent there is potential for losses to policyholders, to ensure that such losses are limited. This philosophy may explain why U.S. regulators believe they should only establish minimum capital requirements and rely on other measures to identify insurers that warrant corrective action even if they exceed their minimum capital requirements. Specifically, U.S. regulators appear to see their role as only stepping in where it is necessary to deal with insurers that are in financial distress or have incurred excessive financial risk and minimize insolvency costs. Hence, a proper assessment of U.S. RBC must be undertaken in the context of the full range of the tools and measures that regulators use to supervise insurance company solvency. The key question is whether U.S. RBC will perform its intended role and achieve its intended objectives within the broader system of U.S. solvency regulation.

At present, the NAIC is only considering adding additional modeling to its formulas when a factor-based approach is determined to be ineffective. The only specific area where this has been identified outside of existing modeling required for the life RBC formula is a catastrophe component for the property/casualty RBC formula. While some have suggested that the NAIC could develop and test a standard model as an alternative or adjunct to the current RBC formulas it does not appear that U.S. regulators are taking any steps in that direction (Cummins and Phillips, 2009).²⁹ There have been proposals for the establishment of a centralized review office to assist regulators in assessing models for life insurance companies, but those are mostly related to principles-based reserving.

In the author's opinion, U.S. regulators should give more serious consideration to the broader use of stochastic modeling and scenario testing in assessing insurance companies' capital adequacy. At the very least, the NAIC could

²⁹ Cummins and Phillips (2009) recommend that U.S. insurers should be allowed to use internal models but that a standard model should also be run for every insurer and that an insurer should be permitted to hold capital less than that indicated by the standard model only if thoroughly justified by the insurer. This approach would be complemented by a "model evaluation office" to assist regulators in reviewing and vetting internal models.

experiment with the development of a standard model that employs stochastic methods and scenario testing for determining those risks for which these methods are appropriate, and perhaps develop a long-term pilot project to consider whether such changes improve financial regulation. In conducting such a pilot project, alternative calibrations of a standard model also could be performed to balance regulatory safety objectives with any additional resource and capital burdens placed on insurers. Consideration could also be given to exempting certain insurers from a requirement that they use a model-based approach to determining their regulatory capital based on their size and scope of business.

However, there is the contrary view that the U.S. RBC has been very effective in meeting its intended objective, particularly when combined with other changes that have been made to the U.S. solvency system. U.S. regulators have emphasized that RBC is only one tool for regulation and that financial monitoring through analysis and examination are no less important. Such processes involve not only the use of ratio and dynamic analysis, but the evaluation of many other elements, including management and its response to difficulties. Regardless of how they are determined, U.S. regulators should not place undue emphasis on capital requirements and should continue to increase their focus on more comprehensive assessments of the adequacy of insurers' risk management.

Chapter III

Governance and Risk Management

There is an increasing appreciation among insurance regulators of the limitations of capital requirements and other quantitative regulations and measures aimed at limiting insurers' financial risk. This is reflected in Pillar II of Solvency II, which focuses on supervisory review of insurers' corporate governance and risk management systems. The International Association of Insurance Supervisors (IAIS) also has developed core principles relating to "suitability," corporate governance and risk management, and internal controls. In view of these developments and their own recognition of the limitations of quantitative regulations, U.S. regulators have taken steps to enhance their qualitative assessment of insurers' risk levels and risk management. An important component of the National Association of Insurance Commissioner's (NAIC) Solvency Modernization Initiative (SMI) is the development of principles for corporate governance and an "own solvency and risk assessment" (ORSA) proposal. This section reviews current regulatory practices and proposals regarding corporate governance and risk management, and offers opinions on how U.S. regulators should approach this critical aspect of insurance regulation.

Comparison of U.S. and EU Approaches

Historically, U.S. regulators have tended to place greater reliance on quantitative regulations and risk metrics than qualitative analysis. Considerable emphasis was placed on capital requirements especially with the adoption in the early 1990s of Risk-based Capital (RBC) standards, early warning systems, and financial examinations. The early warning systems are based on quantitative ratios derived from insurers' financial statements. Financial examinations and analysis were focused on determining whether insurers' financial statements were accurate and insurers' compliance with quantitative regulations (e.g., percentage limits on certain types of assets). Insurers are also required to file a management's discussion and analysis report but, historically, these reports were used primarily by insurance company managers to explain anomalies in their financial statements rather than to present forward-looking business plans and to discuss a company's risks and how they were being managed.

Beginning in the 1990s and accelerating over the last decade, U.S. insurance regulators have sought to increase their use of qualitative assessments of insurers' financial condition and risk profiles. Examples include increasing emphasis on risk-focused surveillance and the use of various sources of qualitative information to augment quantitative reports. The NAIC Financial Analysis Handbook is centered on the need for the analyst to obtain whatever

information is available to make a better determination of the risks facing the insurer and its management. This information includes financial strength ratings, Securities and Exchange Commission (SEC) reports, media articles, and communications with rate and market conduct analysts. The Financial Analysis Handbook contemplates discussions with management wherever there is a need to better understand the risks the insurer faces. In theory, these information sources enable financial regulators to develop a better understanding of how well an insurer is managing its risk and/or alert them to adverse developments in a company's performance before such developments are revealed in its financial statement.

Although the Financial Analysis Handbook advises regulators to engage in informal discussions with a company's management about its financial conditions and risk management, the author's impression is that such consultations have been more reactive than proactive. In other words, if quantitative assessments revealed adverse financial trends or other anomalies, regulators might then discuss these issues with company managers or call a targeted examination. However, the Financial Condition Examiners Handbook does require examiners to place their emphasis on a more forward-looking assessment of a company's risks, the management of those risks, and the adequacy of its internal controls.³⁰ This specifically includes assessing the corporate governance framework and enterprise risk management processes of the insurer/insurance group. Nonetheless, as discussed later in this report, it appears that financial examiners are still in the process of becoming accustomed to using these methods in conducting financial examinations. Consequently, although the Financial Analysis Handbook now requires follow-up on those risks identified and discussed within the risk-focused examinations, such procedures may not be as robust as contemplated because the financial examiners are still acclimating themselves to this new approach.

Under Pillar II of Solvency II, the European Union (EU) is placing significant emphasis on enhancing the use of qualitative measures to augment the quantitative measures under Pillar I. The premise underlying Pillar II is that the risks recognized by quantitative models under Pillar I must be managed with appropriate processes and decisions in the context of a comprehensive risk management system. A key element of Pillar II is the supervisory review process. It involves the appraisal of the strategies, processes, and reporting procedures established by the insurer as well as the risks the insurer faces or may face and its ability to assess these risks. Regulators must also evaluate the adequacy of an insurer's methods and practices to identify possible events or future changes in

³⁰ This is a significant change from the focus of "traditional" financial examinations in which the primary emphasis was on verifying the accuracy of an insurer's financial statement through the review of all material accounts and detailed testing to verify account balances.

economic conditions that could have unfavorable effects on its overall financial position (Eling, Klein, and Schmit, 2009).

Hence, a principal focus of the supervisory review process is an insurer's corporate governance structure. It can be divided into four key functions: 1) risk management; 2) actuarial analysis; 3) internal audits; and 4) internal controls. Risk management encompasses underwriting and reserving, asset-liability management, investments, liquidity, and concentration/diversification of risks. The actuarial function comprises the methodologies and procedures to assess the sufficiency and uncertainty of technical reserves among other areas. Internal auditing is an independent and objective consulting activity designed to evaluate and improve the effectiveness of a firm's risk management, control, and governance processes. Internal controls are designed to ensure the effectiveness of a firm's operations with respect to its risk, the availability and reliability of its information, and regulatory compliance.

Pillar II requires every insurer to conduct its own ORSA. This includes a regular assessment of an insurer's solvency needs and how it is addressing those needs going forward. In such an assessment, an insurer would be expected to highlight areas where its assessment deviates significantly from its Solvency Capital Requirement (SCR) assumptions. ORSA also requires insurers to implement appropriate processes for identifying and quantifying their risks in a coherent framework. Insurers will further need to demonstrate that their assessments are integrated into their strategic decision-making process. As a result of this process, a regulator might require an insurer to hold more capital than its SCR.

Supervisory review places significant demands on regulators' resources and capacities to evaluate the adequacy of an insurer's risk management. It also requires regulators to employ appropriate monitoring tools and analysis that will enable them to identify insurers that are in financial distress or have incurred excessive financial risk and take effective remedial actions. In countries such as the United Kingdom where regulators have significant experience with qualitative analysis, meeting Pillar II requirements may not be a huge step. In other countries with less experience with qualitative methods, regulators may face a bigger learning curve.

Potential Changes to Corporate Governance/Risk Management in the U.S.

As noted above, corporate governance and risk management are important components of the NAIC's SMI. In 2012, the Corporate Governance (EX) Working Group issued a consultation paper on these topics and solicited comments from interested parties. It has defined corporate governance as

“a framework of rules and practices by which a board of directors ensures accountability, fairness, and transparency in an insurer’s relationship with all of its stakeholders.” The paper recognizes that, U.S. regulators have historically only set basic requirements for insurance companies in this area, as corporate governance has been viewed as a company responsibility determined by corporate law. At the same time, due to changes in the economic environment and the move toward some aspects of a principles-based system, the NAIC believes that additional information may be needed to set forth the general expectations of regulators as it pertains to insurers’ corporate governance.

The paper presents a detailed set of principles that will be summarized here. First, the paper states that the primary responsibility for implementing proper corporate governance principles rests with an insurer’s board of directors. It articulates the following standards that might be established to ensure that a board of directors would be capable of carrying out this function:

- The Board of Directors should be composed of a sufficient number of knowledgeable, independent, and active members to properly fulfill its governance and oversight responsibilities.
- The Board of Directors and its committees should be governed by formal bylaws and charters to ensure that duties and responsibilities are effectively documented and communicated.
- Members of the Board of Directors should possess the appropriate professional qualifications, knowledge, and experience to enable sound and prudent management. Members of the Board of Directors should be of good repute and integrity in order to properly fulfill their obligations.
- Members of the Board of Directors should be guided by two basic principles, the duty of care and the duty of loyalty. Board members must have a sense of care and interest in the organization and a willingness to place the organization goals above personal interests.

Second, the paper states that the corporate governance system “should include an adequate transparent organizational structure with a clear allocation and appropriate segregation of responsibilities, as well as an effective system for ensuring the transmission of information.” Within this structure, the board would be expected to provide a significant level of strategic oversight in each of the following areas:

- Executive oversight and remuneration;

- Strategic planning and risk management;
- Audit function;
- Actuarial function;
- Code of conduct/ethics;
- Regulatory compliance;
- Director education and performance evaluation; and
- Succession planning.

The paper also recommends that information concerning the corporate governance of insurers should be shared with regulators on a “regular basis” and verified during the financial examination process. Specific standards would need to be developed regarding the content and frequency of the information that would be provided and how regulators would review and use this information. Although this author believes the NAIC should continue to explore the possibility that improvements could be made in this area, there is often confusion between the lines of good corporate governance and management’s decisions.

Some studies of insurance insolvencies have found that mismanagement is often at the heart of many insurance company insolvencies (Sharma, 2002; Leadbetter and Dibra, 2009; Cummins and Phillips, 2009). Recognizing that there is a cost associated with the development of stronger governance structures, the question for regulators is how far to go in establishing corporate governance standards versus relying on companies to use their own discretion in developing governance processes that are appropriate for the nature, scale, and complexity of their business. Consequently, any regulatory changes with respect to corporate governance should be made with caution and balance the costs and benefits of new regulatory requirements.

The consultation paper’s proposed standards regarding risk management are more extensive than those proposed for corporate governance and only the highlights are noted here. It defines risk management as a process implemented by an entity’s board of directors and management that is applied in strategy setting across the enterprise. It is also designed to identify potential events that may affect the entity and to manage risk to be within its risk appetite so as to provide reasonable assurance regarding the achievement of entity objectives. It goes on to state that “an insurer’s risk management function should limit the

risks acceptable to the entity to ensure that it is able to continue to operate following an extreme loss event.”

According to the paper, a critical element of any risk management process should be the performance of scenario analysis and stress testing. It further states that each insurer should adopt a formal risk management framework/function to ensure that it is properly identifying, monitoring, and managing the risks it faces. The paper envisions that an insurer would have a risk management policy that outlines the way in which it manages each relevant and material category of risk, strategically and operationally. The policy would describe the linkage with the insurer’s risk tolerance limits, regulatory capital requirements, economic capital, and its processes and methods for monitoring risk. In this context, an insurer would be expected to use its risk management function to determine the level of internal economic capital it should hold for solvency purposes.

The paper states that an insurer should perform an ORSA to assist its risk management process. The International Solvency (EX) Working Group issued an ORSA proposal in February 2011 and solicited comments on the proposal from interested parties. In October 2011 the Group Solvency Issues (EX) Working Group (GSIWG) issued a revised proposal, and on November 5, 2011, it adopted an ORSA Guidance Manual that was forwarded to the Financial Condition (E) Committee for further consideration. On March 6, 2012, the NAIC’s Joint Executive (EX) Committee and Plenary adopted the final version of the ORSA Guidance Manual.

This action has been followed by several activities designed to fully implement an ORSA reporting process that are discussed further below. These activities include: 1) the development of an ORSA glossary of terms; 2) an ORSA feedback pilot project; 3) an enterprise risk management (ERM) program for regulators; and 4) the development of an ORSA model law. The Financial Condition (E) Committee has also charged the Financial Analysis Handbook (E) Working Group and the Financial Examiners Handbook (E) Technical Group with incorporating guidance into the Financial Analysis Handbooks and the Financial Condition Examiners Handbook to assist analysts and examiners in reviewing the ORSA summary reports.

Key features of the ORSA manual are summarized here. According to the manual, “the ORSA is essentially an internal assessment of the risks associated with an insurer’s current business plan, and the sufficiency of capital resources to support those risks.” The manual goes on to assert two primary goals of the ORSA:

- To foster an effective level of enterprise risk management with all insurers, through which each insurer identifies and quantifies its material and relevant risks, using techniques that are appropriate to the nature, scale, and complexity of the insurer's risks in a manner that is adequate to support risk and capital decisions; and
- To provide a group-level perspective on risk and capital as a supplement to the existing legal entity view.

An insurer that is subject to an ORSA requirement will be expected to conduct an ORSA to assess the adequacy of its risk management and current, and likely, future solvency position, internally document the process and results, and provide a high-level summary report annually to its domiciliary regulator, if requested. The ORSA prepared and filed by an insurer would contain three major sections: 1) a description of its risk management policy; 2) quantitative measurements of its risk exposure in normal and stressed environments; and 3) a prospective solvency assessment. The ORSA proposal goes on to outline detailed requirements for each section. The working group envisions that each state would enact implementing legislation to establish and enforce an ORSA requirement.

In order to gain a better understanding of how the ORSA process might work in practice, the NAIC is conducting an ORSA feedback pilot project under the supervision of the ORSA Subgroup. The subgroup has indicated that approximately 15 companies voluntarily agreed to submit ORSA reports by June 30, 2012, as part of the project. The information acquired through this project will be used in the NAIC's guidance to analysts and examiners in implementing an ORSA requirement and the development of the ERM educational program.

The ORSA Subgroup also has been charged with developing an ERM educational program through which financial examiners and analysts will receive training and guidance that will help them in reviewing ORSA reports and other activities that require them to assess an insurer's risk management processes. During its March 2012 meeting, the subgroup discussed the development of a "Multi-Year Enterprise Risk Management Education Program," which will be administered in several phases. The subgroup also discussed the knowledge and skills that would be needed by insurance department ERM specialists and/or an NAIC ERM staff specialist to provide support and future guidance on ERM and ORSA and training to the states as they implement an ORSA requirement.

The GSIWG was charged with the task of developing an ORSA model law. On April 4, 2012, the working group released a draft ORSA model act for public

comment. After considering comments offered by interested parties, the draft model act was revised, and on September 12, 2012, the NAIC formally adopted the “Risk Management and Own Risk and Solvency Assessment (RMORSA) Model Act”.³¹ Under the model act, an insurer or an insurer group of which the insurer is a member will be required to conduct annually an ORSA consistent with a process comparable to that provided in the ORSA Guidance Manual. At the request of its domiciliary commissioner, an insurer would be required to submit an ORSA Summary Report, sections of an ORSA Summary Report, or combination of reports as prescribed by the manual. The model act allows an insurer to satisfy a request for an ORSA Summary Report by providing the most recent and substantially similar report provided by the insurer or another member of an insurer group in which the insurer is a member to a regulator of a foreign jurisdiction if that report provides information that is comparable to information prescribed by the ORSA guidance manual.

Consistent with the manual, the model act provides an exemption for insurers with annual direct and unaffiliated assumed premiums of less than \$500 million and insured groups with annual direct and unaffiliated assumed premiums of less than \$1 billion. Notwithstanding these exemptions, the commissioner may require that an insurer file an ORSA Summary Report based on “unique circumstances” including, but not limited to, the type and volume of business written, ownership and organizational structure, federal agency requests, and international supervisor requests. The commissioner may also require a summary report from an insurer if the insurer has total adjusted capital less than its company-level action RBC, meets one or more of the standards of an insurer deemed to be in hazardous financial condition, or otherwise exhibits qualities of a troubled insurer as determined by the commissioner.

The model act also contains a section that addresses the confidentiality of the ORSA Summary Report and any related documents, materials, or other information. The report and supporting documentation would be treated as proprietary information and held confidential and would not be subject to open records or freedom of information requests, subpoenas, or discovery, or admissible in evidence in any private civil action. The commissioner would be allowed to share an insurer’s ORSA Summary Report and related materials with other state, federal, and international agencies as well as the NAIC and any third-party consultants designated by the commissioner, provided that these parties agree in writing to maintain the confidentiality of any materials shared.

In assessing the NAIC proposals and the subjects they address, it is difficult to argue with the proposition that effective regulation requires both the use

³¹ See NAIC (2012a).

of quantitative as well as qualitative methods. Although the risk-focused surveillance process already requires regulators to assess the corporate governance and risk management functions of insurers, U.S. regulators could give more attention to this area in recognition of its importance. It is reasonable to expect that most insurance companies should have adequate corporate governance and risk management systems in place, but some may not. Hence, regulators should have a process in place to determine the adequacy of insurers' corporate governance and risk management systems. The debate centers on whether there are already adequate regulatory measures in place to ensure that insurers are properly managing their financial risk and that regulators have all the tools they need to conduct effective qualitative analysis of insurers' risks and their management of those risks.

Many industry commentators on the NAIC's proposed corporate governance standards raised the concern that corporate governance would become a "separate" area of focus with insufficient consideration of the extent to which corporate governance is currently addressed in existing regulations and examination processes as well as U.S. corporate law. This raises issues with respect to whether additional corporate governance standards would be redundant in some respects and potentially excessive in others. There is an expressed preference for U.S. regulators to rely on existing regulations and processes to assess the adequacy of insurers' corporate governance. It has been pointed out that regulators already have the authority under the NAIC Hazardous Financial Condition Model to take action when an insurer's corporate governance practices are not sufficient.

In the author's view, the need for additional corporate governance standards warrants further study. It would seem prudent to perform a detailed analysis of the proposed corporate standards and determine the extent to which these standards could be enforced through existing regulations. Such an analysis could be further informed by a detailed study of past insurer failures and the extent to which inadequate corporate governance contributed to these failures. The analysis might indicate that existing regulations are not as extensive or specific as the proposed corporate governance standards, but might also conclude that they adequately address the problems that have been experienced in past failures, although regulators may not have effectively enforced existing regulations in some instances. This could lead to a reassessment as to the reasonableness and necessity of the proposed standards and a discussion of the extent to which existing regulatory tools should be enhanced to achieve a reasonable set of goals and outcomes with respect to corporate governance. The NAIC has conducted a review of existing U.S. corporate governance requirements that will presumably be used in a further assessment of the adequacy of these standards and whether any further changes to state laws and regulations would be warranted.

In the author's opinion, the ORSA requirement has merit. Cummins and Phillips (2009) also concluded that the U.S. regulatory system needs to systematically incorporate qualitative factors, provide incentives for improved risk management, and introduce an ORSA process. While it is true that regulators are now expected to conduct an assessment of an insurer's risks and risk management in financial examinations, these examinations generally occur only once every three years to five years. The NAIC Financial Analysis Handbook requires insurance department analysts to consider whether follow-up analysis on any of the items considered during insurance companies' examinations should be performed between examinations by the analysts. The ORSA requirement would provide a basis for further risk assessments of insurers by department financial analysts between their on-site examinations that could include the evaluation of new risks or issues that might emerge after an insurer's examination. The ORSA manual that has been adopted by the NAIC would appear to provide regulators with a valuable new tool in conducting risks assessments of insurers. What will be achieved with the ORSA will depend greatly on how regulators use it. Indeed, the effectiveness of the full scope of the qualitative elements of regulatory supervision hinges on the motivation and capacity of regulators to use all of the tools available to them.

Group Supervision

U.S. regulators have tended to focus their supervision on the individual insurance companies (i.e., legal entities) within a holding company structure. This likely stems from the requirement that each insurance company must become licensed to do business in a particular state. Historically, regulators have not practiced group supervision in terms of a consolidated solvency assessment of a group or holding company structure. However, this does not mean that they ignore the relationships and transactions between insurance companies and other entities within a holding company structure or the financial condition of the entire holding company system. Group supervision is currently performed under the authority of the Insurance Holding Company System Regulatory Act and the Insurance Holding Company System Model Regulation with Reporting Forms and Instructions and applied under practices described in the NAIC's Financial Analysis Handbook.

Typically, the primary responsibility for the solvency regulation of an insurance company is delegated to its domiciliary state. If multiple insurance companies within a group are domiciled in one state, then that state would be the primary solvency regulator for those companies. If multiple insurance companies within a group are based in different states, a lead state approach is taken with respect to their solvency regulation. A lead state becomes the accumulator of information with respect to issues impacting the entire holding company, is typically the state

that performs analysis of the financial condition of the entire group, and works with the domestic regulators of each of the insurance legal entities within the group in helping to reach a consensus on issues dealing with the entire group. Similarly, as it pertains to the examination of insurance groups, the NAIC uses a process similar to the lead state approach, wherein a “coordinating state” takes responsibility for determining if it makes sense for states to coordinate their efforts with respect to the insurance group. The primary input for making such a determination is the structure of the insurance group and any shared systems and common resources used by its members.

U.S. regulators also coordinate their oversight of multiple insurance companies housed within the same group through the activities of the Financial Analysis (E) Working Group. The activities of this group are based upon financial analysis performed by NAIC staff members who utilize filings with the NAIC, automatic tools developed and maintained by the Financial Analysis Research and Development (E) Working Group, and any other information on the insurance group. After reviewing such information, the working group asks questions and requests further information from domestic states to ensure that proper action is taken on a timely basis with respect to potentially troubled insurers. Additionally, as noted above, a company is subject to a secondary level of oversight by every state in which it is licensed to do business, and these states can exert pressure on the company’s domiciliary regulator if necessary to ensure that appropriate action is taken if the company encounters financial distress or takes on an excessive level of financial risk.

Another way that states can impose some degree of regulation over the transactions between insurance companies under their jurisdiction and the company’s affiliates and parent company is through the insurance holding company systems model law and regulation noted above. The model law and regulation are applicable to any holding company structure that consists of two or more firms if at least one of the firms is an insurance company. Every insurance company must file a registration statement with the insurance department of its home state. The statement must describe all of the relationships that exist between the insurance company and its affiliated entities. All transactions between affiliates must be described and a considerable amount of information must be provided about the controlling entity, including financial statements. This is the source of the holding company analysis performed by the lead state discussed above. The statement must be filed annually and updated during the year if there are any material changes.

The holding company act also requires prior regulatory approval of any material transactions between an insurance company and its affiliates, including such transactions as management arrangements, purchases and sales of assets,

reinsurance arrangements, and tax-sharing agreements. Regulators review these transactions to ensure that they are fair and reasonable and will not undermine the solvency of the insurance company. For example, any dividends declared by the insurance company that exceed the greater of 10 percent of the company's surplus or the company's net gains from operations for the prior year are deemed to be "extraordinary" and are subject to prior regulatory approval. The purpose of this review and approval requirement is to ensure that the company's assets are not being depleted to the detriment of its policyholders and its financial condition. A determination is made as to whether the company will retain adequate capital to support its operations and continue to meet regulatory requirements after the payment of the dividend.

The holding company act also regulates any proposed acquisition of an insurance company, which is also subject to the review and approval of the company's home state. Regulators have the authority to review and evaluate the business plan, financing, and other matters involved in the transaction. This authority is triggered by any transaction in which 10 percent or more of the stock of the insurance company or its parent is being sold. Regulators want to be sure that any acquisition of an insurance company or material change to its ownership structure will not harm the interests of its policyholders.

Despite these existing safeguards, the recent financial crisis and the problems experienced by financial holding companies, including the American International Group, have raised questions worldwide about the oversight of these holding companies and the regulation of entities within these holding companies. There are concerns as to the effectiveness of the supervision of some holding companies and the potential for problems experienced by non-insurance entities to adversely affect affiliated insurance companies. As a consequence of the financial crisis and the concerns about the adequacy of group supervision, policymakers, regulators, and international organizations are taking steps to improve the regulation of financial services worldwide and to encourage greater cooperation among supervisors of various types of financial institutions, including insurance companies. In this context, the NAIC has marked group supervision as one of the principal areas of attention in its SMI.

Group supervision has also been targeted as a major area of reform under Solvency II. The European Commission's proposals provide for a new model of group supervision that balances the traditional regulatory view of an insurance group as a collection of separate legal entities with an economic perspective that views the group as an integrated whole across which risks are pooled and diversified. The objective of these proposals is to protect the policyholders of European insurers from the risks associated with the wider group in which they reside, either due to the level of group connectivity or due to insufficient

coverage of the group's insurance risks with readily transferable capital. Solvency II also recognizes the international scope of many European Economic Area (EEA) insurance groups and is constructing the system for group supervision accordingly. In effect, this means that Solvency II requires group supervision to be undertaken at both a European and a worldwide level.

As proposed under Solvency II, group supervision extends beyond just the consideration of group solvency. It can be best characterized as a supervisory toolkit designed to help EU regulators assess the risk that an EEA insurer's or reinsurer's membership in a group imposes on the policyholders of that company. In this context, a group's corporate governance and risk management processes are as important, if not more important, than its solvency assessment. Under Solvency II, groups will be required to comply with many of the requirements that individual insurance companies will be subject to, supplemented by the reporting of group exposures and intra-group arrangements. Hence, Solvency II is intended to provide EEA supervisors with the information they need to determine whether group membership places significant additional risks on the policyholders of the insurance companies under their supervision. Solvency II's group requirements will include:

- A group solvency calculation, including eligible capital requirements;
- A group Own Risk and Solvency Assessment;
- Group disclosure and supervisory reporting;
- The reporting of group risk concentrations and intra-group transactions; and
- Requirements relating to group governance and risk management.

Under Solvency II, group supervision would be triggered by the presence of an authorized EEA insurance or reinsurance company within a wider insurance group. It would apply to situations where an EEA insurer or reinsurer is owned directly or indirectly by either another insurance company or by an insurance holding company, regardless of where the parent companies are based. In situations where there is more than one parent company, the rules would apply to the highest EEA group and/or the highest non-EEA group. Groups headed by non-insurance parent companies also must meet certain requirements. Financial conglomerates would be subject to rules imposed by the Financial Conglomerates Directive and banking and investment groups also would be subject to the requirements of the Capital Requirements Directive. Additionally, there are disclosure requirements in relation to intra-group transactions for any other type of holding company.

For insurance groups whose ultimate parent is based outside the EEA, group supervision potentially applies at both the highest EEA subgroup and the highest non-EEA insurance parent levels. However, there would be some flexibility in the approach taken toward supervision of non-EEA parent companies as application of Solvency II rules to their fullest extent could prove to be a disproportionate response in many cases. Presumably it is not the aim of Solvency II for EEA supervisors to become the de facto regulators of non-EEA groups. Hence, the operative question is how best to assess the risk posed to EEA companies in a proportionate manner. One method under Solvency II would be through equivalence assessments of non-EEA regulatory systems. If a non-EEA system is deemed equivalent, this would allow EEA regulators to rely on the foreign supervisors to a significant degree. If there is no equivalent group regulatory system, EEA regulators would have the option of supervising the group by applying Solvency II rules to their fullest extent or adopting “other methods” to ensure the protection of EEA policyholders.

A key element of group supervision under Solvency II is the proposed use of colleges of supervisors for groups operating on a cross-border basis. The colleges would be made up of the representatives from supervisors responsible for all relevant activities of all cross-border insurance groups. In this structure, the group supervisor would be relegated from a decisive role to serving as the coordinator and facilitator of the program of supervision for the group. The objective would be for the various supervisors to collaborate closely, sharing and discussing their work, including on-site supervision to regulate the group in a consistent manner, and ideally to address any problems arising in the group proactively. There are a number of questions about how this would work in practice. For example, is it possible for various national supervisors – each with its own degree of independence, its own national supervisory priorities, and varying levels of expertise – to achieve consistent regulation? How these questions will be answered remains to be seen, but there is growing interest in the use of supervisory colleges for the regulation of cross-border groups.

While U.S. regulators believe that the current regulatory framework for group supervision has worked relatively well, they are reconsidering some aspects of this framework in light of the recent financial crisis and the continued evolution of the industry and regulatory practices at the international level. This led to including group supervision as one of the principal components of the SMI and formation of the GSIWG. It is charged with studying the current system for U.S. group supervision and recommending needed enhancements. Many enhancements have already been made and others that might ultimately be made can be gleaned from NAIC documents pertaining to group supervision.

A February 2010 memo from the GSIWG to the chair of the Solvency Modernization Initiatives (EX) Task Force offers recommendations on certain enhancements to group-wide U.S. supervision. As a general concept, the working group recommended the consideration of incorporating certain “prudential benefits” into the current group supervision regulatory framework that would employ a “windows and walls” approach. More specifically, the working group recommended that regulatory “windows” into group operations be added while building upon rather than rejecting the existing regulatory “walls” designed to protect the insurance companies within a group. Several changes were made to the holding company model law and regulation in December 2010 following the working group’s recommendations. The working group’s specific recommendations and corresponding changes to the holding company model law and regulation are discussed below.

The working group’s first recommendation views communication between regulators as the first and most important component of group supervision of regulated entities. Communication with the primary regulator is considered critical whether the regulator is a state, a federal agency, or is located in another country. The working group believes that, at a minimum, this should occur on a bilateral “asked and answered” basis. Currently, the states have Memoranda of Understandings (MOUs) with federal regulators. The working group recommended that state participation be coordinated on a similar national basis for sharing confidential information with international regulators.

The working group further proposes that if the level of scrutiny is heightened to a “troubled financial status,” the level of communication should be immediately elevated from the “ask and answered” approach to a “proactive confidential communication.” This could potentially be achieved through the existing or an enhanced master MOU mechanism with both federal and international regulators. The working group recommends that steps be taken to ensure that state regulators require confidential notification be made to federal and international regulators regarding troubled insurers and that this should occur on a proactive basis when the insurer is operating in a group with entities subject to federal or international oversight. This would be accompanied by a mechanism that would encourage other functional and institutional regulators to have the authority to proactively reciprocate in the sharing of information on a similar basis for entities under their jurisdiction.

The second recommendation concerns supervisory colleges that were discussed above. The working group believes that supervisory colleges should be formally incorporated into regular review processes of internationally active groups through enhancements to the holding company model law and regulation and regulatory best practices. In the working group’s view, these colleges collectively

provide the best optics as well as clear channels of communication to navigate through any potential financial crisis. In December 2010, the NAIC adopted revisions to the model holding company act that introduce supervisory colleges within the act and identify funding that can be used by U.S. regulators to participate in these colleges.

The third recommendation deals with regulators' access to and collection of information. It is recognized that access to meaningful information about unregulated entities that include non-operating holding companies can present a challenge for all regulators. The working group believes the U.S. group solvency structure should be enhanced to provide broader access to information upstream regarding all holding company groups with regulated insurance entities and all affiliates. In the view of the working group, it may not be necessary to license holding companies if regulations can be used to establish a centralized, regular, and confidential reporting mechanism by a holding company to provide information on all entities under its control. In December 2010, the model holding company act and model regulation were revised to expand the ability of regulators to look at any entity within an insurance holding company system that may or may not directly affect that system, but could pose reputational risk or financial risk to an insurer through a new Form F – Enterprise Risk Report. Regulators' rights to access information were also enhanced, particularly regarding the examinations of affiliates and access to books and records to better ascertain the financial condition of the insurer. Language was also added to require the notification of the divestiture of controlling interest in an insurer.

The fourth working group recommendation concerns enforcement measures. It believes that clear regulatory tools should exist to protect an insurer and its policyholders if violations of reporting requirements occur. This may not require the registration of a holding company if adequate jurisdiction over the holding company exists to ensure adequate access to information. The working group recommends that penalties be increased and other consequences strengthened when required information is not provided. Further, it believes that standards for transactions with affiliates be clarified and strengthened as well as standards used to determine whether an entity is or is not in control of an insurance company. The working group's most detailed set of recommendations concerns group capital assessment. It believes that effective group supervision should provide a window with a "panoramic" view of the group as a whole so regulators can be alerted to double gearing and excessive leveraging.³² Hence, it recommends that U.S. group supervision include a review and assessment of capital on a

³² "Double-gearing" refers to the practice of multiple companies using shared capital to buffer against risk within each company without properly documenting their exposure. A common example of this would be when an insurance company purchases shares in a bank that in turn extends credit to the insurance company.

group basis in addition to retaining separate capital requirements for insurance companies operating within the group. In the view of the working group, a panoramic view that includes group capital will not only help assess the risk of financial contagion within a group but will also place regulators in a better position to assess and participate in discussions of systemic risk involving the insurance sector (see discussion of ORSA above).

The working group identified two potential objectives of group capital requirements. One objective would be to establish group capital as a common international requirement for regulatory triggers. However, it believes such an objective would be neither realistic nor practical. International jurisdictions have differing objectives and approaches and there is significant variation in their required treatment of capital for regulatory action purposes. A second objective would be to allow earlier detection of group implications in order to avoid potential financial and reputational contagion to other entities within the group or to the group as a whole. The working group believes this is a more realistic and achievable objective of a group capital requirement, insofar as the insurance group is concerned, using both a quantitative and qualitative approach. This objective is currently within the jurisdiction of state regulators. Hence, the working group recommends that a group capital requirement be pursued to the extent that it is confined to this second objective. NAIC proposals regarding group capital assessments are discussed further below.

Finally, the working group recommended that the NAIC Financial Regulation Standards and Accreditation Program consider a requirement to incorporate a Holding Company Analysis Review Team Guideline. The current accreditation review guidelines require holding company filings to be reviewed, but does not articulate the extent of the expectations for the degree of analysis performed on holding company filing documents such as Form B. In line with this recommendation, accreditation requirements were revised to expand the holding company review requirement to provide greater specificity with respect to the expectations and/or degree of analysis that should be undertaken. The appropriate depth and frequency of the analysis of a holding company are expected to depend on the sophistication, complexity, and financial strength of the holding company systems or its parts.

Initially, the GSIWG outlined several options for group capital assessment. The intent is to develop an approach that would be consistent with IAIS core principles that recognize several approaches to group capital assessment ranging from a group-level focus (based on an assumption that the group behaves as a single integrated entity) to a legal-entity focus that accounts for any materials risks posed by the group to the legal entity. Using a group-level focus, the insurance group is treated as a single legal entity for which a separate assessment

is made for the group as a whole. Risks from non-insurance members of the group are considered and require different assumptions in the calculations.

Group capital calculations can use a consolidated method or an aggregation method. The consolidation method has the advantage of eliminating double counting of intergroup holdings. However, it has the disadvantage of treating the group as one single entity which it is not. The aggregation method sums the capital surpluses/deficits of each single entity, with adjustments for intergroup holdings or sums the legal entity capital requirements and available capital. This method has the advantage of measuring companies as they legally exist, but requires adjustments for cross-border calculations where different valuations and capital requirement methodologies exist.

Under a legal-entity focus, the insurance group is not treated as a single integrated entity, but instead is treated as a set of interdependent legal entities, with each insurance company having a separate capital requirement that takes into account any material risks that arise from being part of a group. There is no summation of the separate capital requirements for each company.

Under current U.S. insurance capital requirements, when a parent company is an insurance company, the parent's RBC is a group-level requirement and is calculated using an aggregation method. When the parent is a holding company, there are currently no group capital requirements, although the legal capital requirements can be modified by regulators to measure the material risks arising from being part of a group to achieve group capital on a legal-entity basis. Additionally, regulators typically attempt to assess group capital risks and issues during their annual review of the filings made under the holding company law and regulation and conduct of holding company analysis procedures. However, this information submitted to regulators or that is otherwise publicly available will vary by group and is not uniform.

The GSIWG posed three different options for group capital assessment for comment and discussion. The first option was labeled as "Legal Entity RBC Adjustments." To comply with IAIS standards, the legal entity RBC would need to account for the risks of being part of a group, such as reputational, contagion, or enterprise risks that could have an adverse effect on an insurance company within the group. This approach would differ from group-level capital because the capital requirements do not require any capital calculations for any non-insurance companies in the group. To perform such an analysis, U.S. regulators would need to obtain financial data from the group. The second option would be to add provisions to the ORSA to provide the information necessary to perform an analysis of the group's financial condition and risks.

The third option would be to require a group capital calculation. Under this option, when the parent is an insurance company, the current RBC requirements are applicable. The RBC use of other countries' capital requirements could be expanded beyond the use of Canada's Minimum Continuing Capital and Surplus Requirements for life insurers. This might require some determination, country by country, of the comparability of capital requirement calculations. When the parent is a holding company, a group capital calculation and analysis could be made. This group capital calculation could be conducted in a manner similar to RBC, with adaptation for non-insurance companies deemed significant in the group. However, the group RBC requirement would be significantly different from the RBC requirement for legal entities given there would be no control levels but only action levels. Regulatory action with the group capital calculation could be focused on the need to have risk discussions with a group rather than any concrete required action or control.

After considering the three options, the GSIWG agreed to use the ORSA approach as the means to provide confidential information to U.S. regulators to enable them to regularly perform an analysis of the group's financial condition and risks through the review of the holding company system's target capital position. Under its proposed group capital assessment for ORSA, U.S.-based insurance companies that are part of a holding company system would be required to provide a group capital assessment within their confidential ORSA.

In the view of the working group, the fundamental goal of the assessment would be to provide an overall determination of the capital needs (i.e., "target capital") for the holding company system, based upon the nature, scale, and complexity of risk within the group. Group capital would not be viewed as the minimum amount of capital that it would need to hold to avoid regulatory action; rather, it would be recognized that this is the capital needed within a holding company system to achieve its business objectives.

In addition to the changes to the holding company model law and regulation that have already been adopted as mentioned above, there have been several other modifications worth noting. These include:

- Enhancements in corporate governance, board of directors, and senior management responsibilities in line with the current NAIC Model Audit Rule, state laws, and legal practices;
- Guidance on the disclaimer of affiliation filings that includes language regarding disallowance of a disclaimer of affiliation and an opportunity for an administrative hearing on those matters; and

- Additional standards for reviewing affiliated agreements to enhance minimum requirements.

In addition, holding company and supervisory best practices have been drafted to provide guidance and best practices to be used by state regulators in their oversight of insurance companies within holding company systems. These best practices include: 1) facilitating communication and coordination between cross border and other financial sector regulators and federal agencies; 2) uniform practices for the evaluation of mergers, acquisitions, and control (including the coordination of Form A reviews); 3) evaluation of Form A exemptions and corporate governance policies; 4) review and approval of affiliated management and service agreements; and 5) fair and equitable standards and best practices for participating in international supervisory colleges (including guidance on the coordination and communication of information to cross-border and other functional regulators).

Chapter IV

Statutory Accounting and Financial Reporting

The Current System in the U.S.

Currently, U.S. regulators use Statutory Accounting Principles (SAP) as the primary basis for financial reporting by insurance companies. Insurers are required to maintain records and file annual and quarterly financial statements with regulators in accordance with statutory accounting principles that differ somewhat from Generally Accepted Accounting Principles (GAAP). As articulated by the National Association of Insurance Commissioners (NAIC), statutory accounting is focused on the measurement of the ability to pay claims in the future while GAAP has historically focused on the measurement of emerging earnings of a business from period to period. Under SAP, most assets are valued conservatively and certain non-liquid assets, e.g., furniture and fixtures, are not admitted in the calculation of an insurer's surplus. Statutory rules also govern such areas as how insurers should establish reserves for claims and the conditions under which they can claim credit for reinsurance ceded.

Statutory accounting has been criticized over the years for reliance on amortized book or historical cost values rather than market values for bonds. Proponents of market valuation argue that it would provide regulators, policyholders, and others with a more accurate picture of the true risk and net worth of an insurer. It also is argued that market value accounting would improve insurer investment decisions that are distorted by historical cost accounting.³³ Regulators have generally opposed full market value accounting because of concerns about the potential difficulty in estimating the market values of some securities as well as liabilities. In 1993, the Financial Accounting Standards Board (FASB) adopted market value reporting requirements for bonds for purposes of GAAP financial statements. While this has increased pressure on U.S. insurance regulators to reconsider the SAP approach to market value accounting, they have been reluctant to implement any changes until there is greater consensus on the market valuation of liabilities. Even if FASB adopted changes to U.S. GAAP that would provide for some form of market value accounting for insurance liabilities, insurance regulators may be hesitant to adopt a corresponding change to SAP. This

³³ A historical cost system induces insurers to sell (hold) assets when market values are greater (less) than book values to improve their reported financial position.

is primarily due to the fact that regulators value the flexibility of dealing with the specific circumstances for an insurer and do not want to be forced into a situation where they are required to take regulatory action that is not in the best interests of the policyholders. Regulators already have broad-based authority to deem an insurer in hazardous financial condition if they have material unrealized losses.

Historically, the statutory accounting rules for insurance companies have generally been fairly similar among the states, but there have been some differences. Prior to 2001, statutory accounting principles were not articulated in a way that consistently clarified their interpretation and application on a comprehensive basis. In addition, many states had statutes that required accounting practices that differed from those promulgated by the NAIC. Some insurance departments also may permit accounting practices that differ from those of the NAIC. Consequently, an insurer's compliance with SAP sometimes could be a matter of interpretation and could vary among the states depending on the practices permitted by each state.

In 1994, the NAIC embarked on a project to "codify" SAP so insurers, regulators, and independent auditors would have comprehensive statutory accounting guidance. The project was intended to achieve greater standardization in accounting guidelines across the states as well as provide definitions where they have been previously lacking.³⁴ In September 1994, the NAIC's Financial Condition (EX4) Subcommittee adopted a Statement of Concepts to provide guidance on the codification project. It used GAAP as a general framework and addressed objectives exclusive to SAP. The idea is to utilize the extensive guidance available in GAAP when it is consistent with insurance regulatory objectives and provide comprehensive guidance for statutory principles that differ from GAAP.

The Codification of Statutory Accounting Principles Working Group under the NAIC's Accounting Practices and Procedures (EX4) Task Force directed the project. NAIC staff and independent consultants worked on a series of more than 100 issue papers that addressed the numerous technical accounting issues and which were subsequently adopted by the NAIC. The requirements contained in the issue papers by the working group and the NAIC effectively established a set of codified statutory accounting principles.

³⁴ The NAIC publishes several references that provide some information on statutory reporting requirements: the Annual Statement Blanks; the Annual Statement Instructions; the Accounting Practices and Procedures Manual; and the Examiners Handbook. There are separate volumes of the annual statement and accounting practices materials for the different types of insurers.

Since the codification first became effective in 2001, statutory accounting principles have continued to be update and revised. Many of the changes made during that time period are the result of the maintenance process that was established, which requires the NAIC to consider whether changes should be made to the NAIC Accounting Practices and Procedures Manual based on the results of the ongoing review of changes to U.S. GAAP. In performing such a review, the NAIC must determine whether such changes should be adopted, adopted with modification, or rejected with respect to their inclusion in SAP.

Regulators view the U.S. system for regulatory accounting as the most appropriate model for regulatory purposes given that one of its primary objectives is protecting policyholders of insurance companies. From their perspective, the ultimate goal of regulating insurers is to ensure that they can meet their legal obligations to policyholders, contract holders, and other customers when they come due. Hence, the U.S. system encompasses not only accounting principles, but other aspects of regulation designed to prevent or avoid particular solvency-related problems.

Several principles govern U.S. insurance regulatory accounting. One is the concept of conservatism that creates a financial picture of an insurance company that is intended to provide additional policyholder protection, but which may also result in a depiction that does not reflect actual economic results at a given point in time. The other underlying principles are consistency and comparability. Current U.S. regulatory accounting requirements utilize an accrual accounting model, but it has more specificity than other similar accounting models with respect to providing specific guidance for insurance transactions. The current requirements have many baseline rules that all insurers are subject to, as well as specialized rules for major product categories, i.e., life, health, and property/casualty. In addition, there are more detailed requirements specific to more specialized types of insurance, e.g., credit, title, and financial guaranty insurance. It also should be noted that there are relatively conservative reserving rules that are embedded in accounting requirements, model laws and regulations, and actuarial guidelines. In general, the current U.S. regulatory accounting model is viewed as more conservative than U.S. GAAP and less conservative than a liquidation basis of accounting.

While regulators believe the current U.S. system for regulatory accounting has performed relatively well and continues to consider changes to SAP based on new GAAP pronouncements, they have decided that there is a need to formulate a policy regarding the future of regulatory accounting. Consequently, statutory accounting and financial reporting has been marked as one of the five areas for consideration in the Solvency Modernization Initiative (SMI). One important development that has prompted the NAIC to move in this direction is the fact that the International Association of Insurance Supervisors (IAIS) and major jurisdictions (including the European Union (EU)) are advocating International Financial Reporting Standards

(IFRS) for regulatory purposes. Hence, IFRS and how it is being used or advocated in various jurisdictions has received considerable attention in the NAIC discussions regarding the future of statutory accounting. Consequently, the NAIC has been closely following the activities of the International Accounting Standards Board (IASB) and the FASB and submitted comments to both organizations on important accounting issues.

International Accounting Standards for Insurance and Solvency II

The IFRS are principles-based standards and interpretations codified in the framework for international accounting adopted by the IASB. Many of the standards are known by the older name of International Accounting Standards (IAS) that were adopted between 1973 and 2001 by the International Accounting Standards Committee (IASC). In 2001, the IASB assumed responsibility for setting international accounting standards from the IASC by adopting the existing IAS as well as the Standing Interpretations Committee standards (SICs). Since 2001, the IASB has continued to develop the standards for international accounting calling the new standards IFRS.

The IFRS have been designed for general purpose financial statements using a principles-based approach allowing for the exercise of considerable judgment and discretion. U.S. GAAP is more prescriptive in its approach with more specific standards, comprehensive implementation guidance, and industry-specific interpretations. The focus here will be directed to the provisions of the IFRS that pertain specifically to insurance, but it is helpful to review some of its fundamental differences from GAAP that are applicable to both insurance and non-insurance companies.

For U.S. and many non-U.S. companies, the IFRS reflect a significant departure from U.S. GAAP. The new IFRS standards are generally more focused on objectives and principles and rely less on detailed rules and interpretations than U.S. GAAP. They are designed to answer one key question: Does a company's financial statement represent the economic reality underlying the transactions and events accounted for in the financial statement? Consequently, the general view of IFRS has been that it utilizes principles that favor fair-value-like or mark-to-market and mark-to-model methodologies as well as seeking to raise transparency to a new level through increased disclosure.

Industry analysts have held views of IFRS over its development, particularly for insurance, which the IASB has been working on for more than a decade and still has not completed. As expressed in a report by Deloitte (2008), "Nowhere is the change in mindset more pronounced and the implementation of IFRS more

complex than in the insurance industry.” During the decade-long project on insurance contracts, there have been some specific proposals that have caught the attention of analysts. Prior to 2007, most of the attention and discussion regarding IFRS for insurance companies had been focused on IFRS 4 Insurance Contracts, although there are other provisions in IFRS that will have significant implications for insurance.

The development of IFRS for insurance companies has been divided into two phases. In Phase I, the IASB adopted an interim standard for insurance contracts to help EU insurers convert to IFRS by 2005. It also established a specific definition of insurance and reinsurance contracts, introduced several changes to the accounting for insurance contracts, and required increased disclosure relating to future cash flows and risk exposures.

The Phase I standard for insurance contracts raised a number of issues and concerns that are being addressed in Phase II. In May 2007, the IASB issued a discussion paper, “Preliminary Views of Insurance Contracts,” to initiate a formal public consultation process on changes that would be made to IFRS 4 and related IFRS provisions. In 2008, FASB and the IASB began working together on developing a common standard for insurance contracts. However, it should be noted that FASB and the IASB have differences of opinion on certain aspects of the accounting for insurance contracts. In June 2010, the IASB published an exposure draft titled “Insurance Contracts” for further public comment. Initially, the IASB expected to finalize its standard for insurance contracts in 2011, but the most recent IASB work plan indicates that its proposals will be re-exposed or a new review draft will be issued some time in 2013. In September 2010, FASB published its own discussion paper on insurance contracts that differs in some respects from the IASB proposal.

Under the IASB proposal, an insurance contract is defined as “a contract under which one party (the insurer) accepts significant insurance risk from another party (the policyholder) by agreeing to compensate the policyholder if a specified future event (the insured event) adversely affects the policyholder.” Based on this definition, insurance risk can be either underwriting risk or timing risk. Further, significant insurance risk cannot exist unless there is at least one commercially substantive scenario in which the present value of net cash flows can exceed the present value of cash inflows (e.g., premiums). The IFRS standard for insurance contracts would apply to all insurance contracts (non-life, life, reinsurance, etc.) regardless of the issuing entity. Certain types of contracts, such as product warranties and pension plans, would be excluded from this provision.

The IASB’s exposure draft proposes a single measurement model for all insurance contracts that portrays a current assessment of the amount, timing,

and uncertainty of the future cash flows that an insurer expects its existing insurance contracts to generate as it fulfills its rights and obligations under its contracts. This measure is referred to as the “present value of the fulfillment cash flows,” which is measured using the following building blocks:

- The present value of the probability weighted estimate of net cash flows;
- A risk adjustment margin; and
- A residual margin.

The first block would reflect the net amount that an insurer expects to collect from premiums and pay out for claims, benefits, and expenses, estimated using current information and discounted to reflect the time value of money (re-measured each reporting period with changes recognized in earnings). The risk adjustment margin would be based on an explicit assessment of the maximum amount that the insurer would rationally pay to be relieved of the risk that the ultimate fulfillment cash flows will exceed those expected (re-measured each reporting period with changes recognized in earnings). The residual margin would be based on an amount necessary to eliminate any gain at initial contract recognition (recognized in earnings over the coverage period, not re-measured; accretes interest at the discount rate). Under the FASB proposal, the risk adjustment margin and residual margin would be replaced by a composite margin. The composite margin would be based on an amount necessary to eliminate any gain at initial contract recognition that includes an implicit risk adjustment margin and residual margin (recognized in earnings over the coverage and claims handling periods; not re-measured; interest not accreted).

Under the IASB exposure draft and the FASB discussion paper, there could also be a simplified measurement approach available for some contracts – this is referred to as the premium-allocation approach. The IASB is currently considering a simplification of the building-block approach for these kinds of contracts. The premium-allocation approach could be applied if that approach would produce measurements that are a reasonable approximation of those that would be produced by the building-block approach for other contracts. A contract would be deemed to meet the eligibility criteria if both of the following conditions are met: 1) the coverage period is approximately one year or less; 2) the contract does not contain embedded options or other derivatives that significantly affect the variability of cash flows after the unbundling of any embedded derivatives. Guidance would be added to avoid overly restrictive interpretations of “approximately one year.”

The FASB is currently considering the premium-allocation approach a separate model for certain types of contracts (mostly non-life) as opposed to a simplified approach, or proxy for the building-block approach. The FASB has proposed a separate model in part because users of non-life insurers' financial statements have indicated that the current model works well and that only specific targeted improvements to U.S. GAAP are needed. There has, however, been some difficulty in determining the appropriate criteria for the premium-allocation approach and this remains an open issue.

At best, this discussion of the treatment of insurance contracts under IFRS provides a very high-level overview. There are a number of provisions that would affect the measurement of the liability associated with a set of contracts that are beyond the scope of this paper. These provisions would address issues such as fulfillment cash flows, the treatment of acquisition costs, contract recognition and boundaries, the discount rate that would be used to adjust future cash flows, income statement presentation, reinsurance, and the unbundling of certain contract elements such as embedded derivatives and goods and services.

There are other elements of IFRS that will affect insurance companies (Deloitte, 2008). Phase I also required increased quantitative and qualitative disclosure of related risk exposures. For example, it required increased disclosure related to the explanation of reported amounts, including information on accounting policies, significant assumptions and material changes to insurance liabilities, reinsurance assets, and deferred acquisition costs. Additionally, it would require the disclosure of risk management policies and terms and conditions that have a material impact on the amount, timing, and uncertainty of insurers' cash flows. Further, insurance companies reporting under IFRS must also adhere to IFRS 7 and IAS 32 – which pertain to the disclosure and presentation of financial instruments – and IAS 39, which pertains to the recognition and measurement of financial instruments.

Potential Changes to U.S. Financial Reporting Requirements

In 2010, U.S. regulators discussed potential policy decisions about the future of statutory accounting and the financial reporting system and identified three objectives:

- Document the purpose of statutory accounting in the insurance solvency regulation framework;
- Develop a policy position and recommendation regarding IFRS and its inclusion in, or exclusion from, the insurance solvency regulation framework; and

- Develop a policy position recommendation to address the regulatory impacts of non-regulatory uses of statutory financial statements.

Also in 2010, NAIC staff drafted a “Primary Considerations Document” to identify the continuum of policy options. It was released for public comment and the ensuing discussions revealed two main concerns: 1) the industry did not believe the NAIC should make a decision until the Securities and Exchange Commission (SEC) made a decision on IFRS, and also until completion of the IASB Insurance Contracts Project; and 2) some regulators were concerned about giving up regulatory control to the IASB or FASB. Based on this feedback, the NAIC has decided to monitor ongoing developments and postpone further discussions and decisions until the IAIS insurance core principles for valuation and the IASB, FASB, and the SEC reach their decisions. Still, it is useful to review the discussion document that was circulated to gain some perspective on what the NAIC might do when these other groups complete their deliberations.

On April 21, 2010, the Statutory Accounting and Financial Reporting Subgroup (SAFRSG) of the SMI (EX) Task Force highlighted the primary questions for the subgroup’s charge. These questions are:

1. What should be the purpose of the regulatory accounting model?
2. Given that the IAIS and major jurisdictions are advocating the use of IFRS (possibly with modifications) for regulatory purposes, should the NAIC continue to maintain an entire codification of statutory accounting?
3. Should regulatory financial statements be utilized for public purposes or should a separate public financial filing be required?

This led to the drafting of the “Primary Considerations Document” noted above. Here, the author provides a summary of the observations made in that document and speculates on how the NAIC might ultimately answer the three questions posed in the document.

1. What should be the purpose of the regulatory accounting model?

The document expressed the view that “the purpose of any accounting model should be to communicate relevant financial and nonfinancial information to users of financial statements that allows such users to make decisions on that information.” The document goes on to list and briefly describe various types of accounting models that exist, including:

- Cash Accounting;

- Tax Accounting;
- Accrual Accounting;
- Public Market Accounting;
- Regulatory Accounting; and
- Liquidation Accounting.

The document then outlines a number of primary points for considering the future of U.S. insurance regulatory accounting, other related points for consideration, and points related to statutory reporting for consideration. The points outlined are too numerous to repeat here, but the background discussion included in this part of the document reflects views on the current U.S. system for regulatory accounting that will likely heavily influence how the NAIC will answer the question as to the purpose of the regulatory accounting model for insurance. As discussed above, regulators believe that the current model for U.S. insurance regulatory accounting has performed relatively well. Hence, it is difficult to believe that regulators would ultimately support radical changes to this model. It is more likely that regulators will carefully consider changes in U.S. GAAP and IFRS and incorporate any of these changes that they believe are appropriate as long as it does not undermine the fundamental principles that underlie the current U.S. insurance regulatory accounting model.

2. Given that the IAIS and major jurisdictions are advocating the use of IFRS (possibly with modifications) for regulatory purposes, should the NAIC continue to maintain an entire codification of statutory accounting?

The document observes that the current statutory accounting system already includes consideration of any changes to U.S. GAAP, whereby the NAIC decides to reject, adopt, or adopt with modifications, such new GAAP provisions for statutory accounting purposes. Under this framework, if GAAP and IFRS converge in the future, U.S. regulators will have to consider the new GAAP/IFRS requirements for application to statutory accounting. This SAFRSG was formed to consider a direction in lieu of waiting for this process to occur under the current framework due to the significant amount of time and work that would be needed to effectuate necessary regulatory changes (e.g., to risk-based capital, accreditation, state statutes, and regulations) and to allow the insurance commissioners to consider the policy implications as well as the technical issues involved with this directional decision.

The document proceeds to list and describe the options that the subgroup might consider. The options listed are:

- Freeze SAP without changes;
- U.S. GAAP with statutory adjustment step-by-step review;
- IFRS with statutory adjustments;
- IFRS for public companies; IFRS/GAAP with statutory adjustments for nonpublic companies; and
- IFRS without adjustments.

Under the first option listed, U.S. regulatory accounting would be less responsive to GAAP/IFRS than it currently is. It appears that this option was posed as a “straw man” as it did not receive any further discussion in the document. The second option was characterized as the current deliberative process that is already in place. The other options received considerable discussion, but it is difficult to envision that the NAIC would voluntarily adopt one of these options. It is reasonable to surmise that the U.S. regulators would prefer the second option over the others. Essentially, it would mean that U.S. regulators would maintain current SAP for regulatory accounting and decide to adjust that basis of accounting for some, but not necessarily all, IFRS/GAAP convergence items. In the view of U.S. regulators, this approach would have the desirable attributes of: 1) retaining significant control over insurance regulatory accounting rules; and 2) allowing for changes to those rules as deemed appropriate based on changes to U.S. GAAP and IFRS. This would increase the burden on U.S. regulators to the extent that there are significant changes to U.S. GAAP as a result of the efforts to reach convergence with IFRS. Nonetheless, it is likely that the regulators would prefer to undertake this burden rather than relinquish control over the system they use for regulatory accounting. Discussions held by this subgroup subsequent to its exposure also suggest that the NAIC will likely converge in some areas as GAAP changes (e.g. insurance accounting and financial instruments), but reserve the right to make specific changes to what is adopted by the IASB/FASB with respect to both of those projects.

As noted above, the NAIC has been providing comments to the IASB and FASB on specific accounting issues. One area that is of particular concern is the valuation of financial instruments using either a fair value or amortized cost basis. Currently, U.S. SAP values high-quality bonds on an amortized cost basis. In a February 15, 2011, letter to FASB, the chair of the NAIC’s Statutory Accounting Principles Working Group expressed concerns about the direction

FASB appeared to be taking on the valuation of financial assets. Specifically, the NAIC commented on FASB's decision that a "business strategy" criterion for classification and measurement purposes should incorporate the level and market activity for a financial asset. FASB decided that a business-activity approach should be used and that financial assets managed through a lending or customer financing activity holds for the collection of contractual cash flows should be measured at amortized costs. For all other business activities, FASB decided that financial assets should be measured at fair value. The NAIC expressed the concern that there is a conflict between the guidance expressed in these statements. The NAIC believes that the bonds held by insurance companies should be valued at amortized cost given that it is a long-standing business practice of insurers to match invested assets with liabilities by holding many of these assets backing the liabilities to maturity.

3. Should regulatory financial statements be utilized for public purposes or should a separate public financial filing be required?

The document provided relatively little discussion of this question. Three possible scenarios were listed and briefly described for this question. The first scenario was labeled "Current Process," which essentially means that the NAIC would continue to use the NAIC financial statement for both regulatory reporting and public reporting purposes. The second scenario was labeled "Middle of the Continuum." This would require the NAIC "blank" to be filed for public reporting purposes and to include specific statutory-basis exhibits and schedules in the confidential Risk-based Capital (RBC) filings. The third scenario was labeled "Most Changes." It would entail using a separate public reporting financial statement and an entirely different confidential financial statement for regulators only.

Based upon the public discussion on this topic, it appears that the NAIC will likely continue to use its financial statements in the same fashion as currently used. This item may have been raised for discussion as the result of specific substantial changes in statutory accounting that were presumed to have been made because of some imbalance between the use of the financial statements by regulators and investors. The regulatory financial statements currently filed by insurance companies are extensive and publicly available. The NAIC also maintains a database of the information contained in insurers' financial statements that can be accessed or purchased by non-regulators.³⁵ Also, publicly traded insurance companies are required to file reports with the SEC. Further, many insurance companies make their GAAP and SAP financial statements

³⁵ The NAIC Consumer Information Service allows individuals to download key pages of the financial statements for five companies from its website at no cost; there is a charge for additional downloads.

available on their websites. Hence, the operative question would seem to be: Is there a significant gap in the information that is currently available to the public that would warrant a significant change in the information that insurers are required to file and that is made available to the public? In the absence of any evidence that suggests such a gap exists, it is unlikely that regulators will either substantially reduce the information that is currently available the public or, alternatively, require new public reports beyond those that currently exist.

It would appear that once the IASB/FASB complete their work on the insurance contracts and financial instruments project, the NAIC will go through some type of high-level process to evaluate how well such products work for insurance regulation in the U.S. If they are judged successful, they may serve as the starting point for new converged standards, but again with some ability of the NAIC to come to different conclusions and thus adopt them with modifications, just as they do currently when they consider a U.S. GAAP statement. It is also possible that to the extent that such products do not work well for the U.S. system, they may be rejected, and perhaps only certain aspects of such products will be incorporated into U.S. SAP. Finally, it is possible, although the author believes that this is highly unlikely, that the NAIC could adopt such products completely into their system, and in doing so, converge with other insurance and functional regulators.

Chapter V

Reinsurance

Current U.S. Standards for Credit for Reinsurance

Reinsurance plays an essential role in insurance markets and insurance company operations serving several important purposes, including diversification of risk, increasing underwriting capacity, reducing insurers' unearned premium reserves, stabilizing income, and catastrophe protection, among others. Through the appropriate use of reinsurance, insurers can effectively diversify their risk by transferring a portion of their loss exposures to reinsurers that, in turn, may further spread the risk they assume through retrocessions to other reinsurers. Reinsurance also enables insurers to expand their capacity to underwrite more business than they can support based on their own surplus. Reinsurance is an especially important device in helping insurers finance their potential losses from catastrophes, which could far exceed the amount of surplus they can reasonably hold. For these and other reasons, access to and the cost of reinsurance can have significant implications for the supply of insurance at a primary level.

Regulation of reinsurance occurs in two ways: 1) the financial regulation of reinsurance companies by their domiciliary jurisdictions; and 2) regulations pertaining to primary insurers' ability to claim credit for reinsurance on their financial statements for reinsurance recoverables, which reduces their reported liabilities (unearned premium and loss reserves). Historically, the primary issue in the U.S. has been the disparate treatment of domestic versus foreign reinsurers in granting credit for reinsurance recoverables. Insurers have been allowed "full credit" for contracts placed with reinsurers domiciled and regulated in the U.S. and some "approved" foreign insurers that deposit funds in U.S. financial institutions according to regulatory collateral requirements. These rules require foreign reinsurers to post collateral equal to their gross liabilities to ceding U.S. insurers in addition to maintaining a trusteed surplus of not less than \$20 million.

This differential treatment of domestic and foreign reinsurers has been strongly criticized by foreign reinsurers and some U.S. regulators as inefficient and unfair. Critics of the traditional U.S. approach point out that it makes no distinction between financially strong reinsurers subject to stringent regulation in their host countries and financially weak reinsurers based in countries with less stringent regulation. Indeed, all U.S. reinsurers are effectively treated the same regardless of financial rating. There is also the argument that the traditional U.S. approach was at odds with the global nature of the reinsurance market. These concerns have led U.S. regulators to develop an alternative approach for regulating credit

for reinsurance and determining collateral requirements for foreign reinsurers, which is discussed further below.

Treatment of Reinsurance Under Solvency II

The EU took a major step in promoting cross-border trade in reinsurance by adopting its Reinsurance Directive (RID) in November 2005, which was ultimately incorporated into the Solvency II Directive (the Directive) adopted in 2009. The RID was aimed at reinforcing insurance markets by creating a single pan-European market for reinsurance. It establishes supervision of reinsurance by each reinsurer's home jurisdiction, allowing them to operate throughout the EU. Importantly, the RID also removed legally prescribed deposit (i.e., collateral) requirements for these reinsurers.

Both the RID and the the Directive address the issue of how reinsurers based outside the European Economic Area (EEA) – labeled “third-country reinsurance companies” – will be treated. Article 172 of the Directive gives the European Commission the authority to determine whether a third country's solvency regime, as applied to the reinsurance activities of the reinsurers based in the third country, is considered equivalent to that provided in Solvency II. If a third country's solvency regime is deemed equivalent, then member states must treat reinsurance contracts between EEA insurers and reinsurers in the third country in the same way as contracts with EEA reinsurers would be treated. Hence, member states cannot require reinsurers based in third countries deemed equivalent to post collateral to cover their obligations to ceding insurers under their jurisdiction. If a third country is not deemed equivalent, then reinsurers based in that country could be required to post collateral in relation to the risks they reinsure in the EEA. The decision on whether to impose collateral requirements on third-country reinsurers will be left to each member state. A January 2009 survey by the Committee of European Insurance and Occupational Pension Supervisors (CEIOPS) found that most member states did not require third-country reinsurers to post collateral, but this could change. Member states could impose other supervisory requirements on reinsurance from non-equivalent third-country reinsurers, such as rating requirements, enhanced scrutiny, or notification/registration requirements.

Changes to U.S. Standards

In response to criticisms of the current approach to regulating credit for reinsurance, the NAIC adopted the Reinsurance Regulatory Modernization Framework Proposal Reinsurance Framework in 2008. Under the framework outlined in the proposal, U.S. insurers would qualify as “national reinsurers” regulated by their home state. Non-U.S. reinsurers could qualify as “port of entry”

(POE) reinsurers by using an eligible state as a port of entry. A POE reinsurer would be subject to oversight by its port of entry supervisor. Both national reinsurers and POE reinsurers would be subject to collateral requirements that would be scaled according to their financial strength ratings from approved rating organizations. U.S. and non-U.S. reinsurers that did not become qualified as national or POE reinsurers would remain subject to current state laws and regulations governing credit for reinsurance.

This new framework would have been a significant improvement over the traditional approach, but the NAIC has encountered difficulties in implementing it. Initially, the NAIC planned to establish a Reinsurance Review Supervision Division that would be responsible for administering the new framework, including determining the states that would qualify as the supervisors for national and POE reinsurers. This idea was rejected in favor of submitting proposed legislation to Congress that would delegate this responsibility to the federal government. However, this legislation was not enacted. Instead, Congress enacted the Nonadmitted and Reinsurance Reform Act, which prohibits a state from denying credit for reinsurance if the domiciliary state of the ceding insurer recognizes such credit and is either an NAIC-accredited state or has financial solvency requirements substantially similar to NAIC accreditation requirements.

Consequently, some states have expressed interest in moving forward with individual state-based collateral reduction reforms. In fact, regulators in several states, including Florida, New York, New Jersey, and Indiana, have already made changes that reduce collateral requirements for foreign reinsurers consistent with the NAIC's proposed rating scale to help lower the cost of reinsurance for insurers based in their jurisdictions. To facilitate such initiatives, the Reinsurance (E) Task Force adopted recommendations for amendments to the Credit for Reinsurance Model Law and Regulation in 2010 that would implement key elements of the Reinsurance Framework. The task force will also provide guidance to the Financial Regulation Standards and Accreditation (F) Committee with respect to key elements of the revised models to be considered for the purposes of the NAIC's Financial Regulation Standards and Accreditation Program.³⁶ All of these actions were taken in order to allow those states that wished to early adopt changes to their credit for reinsurance requirements to do so without clearly violating current accreditation requirements. However, the NAIC has continued to work on further refining the Credit for Reinsurance Model Law and Regulation that would ultimately become the basis on which the NAIC would enable all states to adopt the Reinsurance Framework.

³⁶ In essence, the F Committee will be reviewing individual state changes to their law and regulations governing credit for reinsurance to ensure that they are sufficiently consistent with the revised NAIC model law and regulation.

On November 6, 2011, the NAIC Plenary adopted a revised Credit for Reinsurance Model Law and Regulation. Under the revised model law, domestic and foreign reinsurers can choose to be subject to the same collateral requirements imposed in the prior model law or choose to qualify as an “eligible insurer” that would be subject to reduced collateral requirements if they meet a number of criteria – several of these criteria are highlighted here. First, the reinsurer must be domiciled and licensed to transact insurance or reinsurance in a “qualified jurisdiction” as determined by the commissioner. Second, the reinsurer must maintain minimum capital and surplus or its equivalent in an amount to be determined by the commissioner pursuant to regulation. Third, the reinsurer must maintain financial strength ratings from two or more rating agencies deemed acceptable by the commissioner pursuant to regulation.³⁷

The collateral requirements for certified reinsurers that meet these and other criteria would be scaled according the ratings assigned to them by the commissioner. The commissioner is required to assign a rating to each certified reinsurer giving due consideration to the financial strength ratings that have been assigned to the reinsurers by rating agencies deemed acceptable to the commissioner pursuant to regulation.

The maximum rating a certified reinsurer may be assigned will correspond to the financial strength ratings from approved rating organizations that are outlined in a table provided in the revised model regulation. The commissioner is required to use the lowest financial strength rating received from an approved rating agency in determining the maximum rating of a certified reinsurer. Table 2 shows the ratings that would be assigned to a certified reinsurer based on its financial strength ratings from the four principal rating agencies and the corresponding collateral requirement expressed as a percentage of the security that the reinsurer would be otherwise required to post to fully collateralize its obligations to ceding insurers.

³⁷ According to the revised model regulation, acceptable rating agencies include Standard and Poor’s, Moody’s, Fitch, A.M. Best, and “any other nationally recognized statistical rating organization.”

Table 2
NAIC Rating Scale for Reinsurance Collateral Requirements

NAIC Rating	Security Required	Corresponding Financial Strength Ratings			
		A.M. Best	S&P	Moody's	Fitch
Secure – 1	0%	A++	AAA	Aaa	AAA
Secure – 2	10%	A+	AA+, AA, AA–	Aa1, Aa2, Aa3	AA+, AA, AA–
Secure – 3	20%	A	A+, A	A1, A2	A+, A
Secure – 4	50%	A–	A–	A3	A–
Secure – 5	75%	B++, B+	BBB+, BBB, BBB–	Baa1, Baa2, Baa3	BBB+, BBB, BBB–
Vulnerable – 6	100%	<B+	<BBB–	<Baa3	<BBB–

As noted above, the revisions to the model law and regulation for credit for reinsurance are intended to allow a state to reduce its collateral requirements for foreign reinsurers consistent with key elements of the original proposed Reinsurance Framework. While this will enable individual states to achieve the principal objective of the Reinsurance Framework, it falls somewhat short of the more comprehensive system envisioned in the original proposal. Ultimately, its impact on the market for reinsurance will depend on how many states adopt the revised regulations and how they are implemented.

Chapter VI

Risk-Focused Surveillance

Overview

Although it not listed as one the five components of the National Association of Insurance Commissioners' (NAIC) Solvency Modernization Initiative (SMI), the NAIC's Risk-Focused Surveillance Framework constitutes a critical element of its overall efforts to improve the system for U.S. solvency regulation. The framework, adopted in 2004, ties together four key regulatory functions and coordinates them in a more cohesive manner so that they are applied consistently by regulators (Vaughan, 2009). These four functions are: 1) risk-focused examinations; 2) off-site risk-focused analysis; 3) examination of internal and external changes in an insurance company; and 4) an annual supervisory plan for each insurer developed by its domiciliary regulator. The NAIC has developed an Insurer Profile Summary (IPS), which is to be completed by the domiciliary regulator for each company and that contains the summaries of its risk-focused examinations, financial analysis, the examination of its internal and external changes, its supervisory plan, and other information relating to its financial condition.

The IPS also provides an executive summary of an insurer's financial condition, risk profile, regulatory actions and plans, and other important information relevant to assessing its financial condition and risk (Vaughan, 2009).

Of the four key functions outlined in the framework, risk-focused examinations have received the greatest attention and are the principal focus of this section. In 2006, the NAIC adopted changes to the Financial Condition Examiners Handbook to better incorporate prospective risk assessment in identifying insurers that have or will likely encounter solvency issues and focus on the ability of an insurer's management to identify, assess, and manage its risks. Previous editions of the handbook provided guidelines for a specific risk analysis (SRA), but did not reflect the broadened scope and enhanced procedures contained in the 2006 revisions. From 2007-2009, state examiners were allowed to choose either the SRA approach or the revised risk-focused examination approach. Beginning in 2010, examiners were required to employ the revised approach for financial accreditation purposes. It appears some states did use the revised approach prior to 2010, and now all states are using the revised approach because of the accreditation requirement.

The intent of a risk-focused examination approach is to broaden and enhance the identification of risks inherent in an insurer's operations and to use this

evaluation in formulating a plan for the ongoing surveillance of the insurer. This approach is designed to provide continuous regulatory oversight of an insurer and extend the examination process beyond the risks present at the time of an examination, to consider risks that extend or commence when the examination is conducted, and risks that are anticipated to arise or extend past the point when the examination is completed. Several purposes of risk-focused examinations can be highlighted, including:

- Identifying insurers that are in financial trouble or have a strong potential to get into financial trouble;
- Determining compliance with state statutes and regulations;
- Providing a clear methodology for assessing “residual risk” and how this assessment should be incorporated into examination procedures; and
- Encouraging the assessment of issues relevant to an insurer’s risk management that go beyond financial reporting errors.

One could also anticipate several benefits of risk-focused examinations. One potential benefit is that they redirect regulatory resources to focus more strongly on high-risk insurers and high-risk areas within an insurance company’s operations. A second benefit would be examining high-risk or troubled insurers more often and subjecting them to more intensive ongoing monitoring. A third benefit would be placing more emphasis on the adequacy of an insurer’s internal control structure and placing less emphasis on simply validating the accuracy of its reported account balances. This leads to a fourth potential benefit, which is making better use of independent and internal auditors’ reports rather than replicating audit tests they have already performed. In sum, a risk-focused approach should result in more efficient and effective examinations that contribute to an enhanced ongoing supervisory process that does a better job of identifying high-risk companies in a more proactive manner.

Key Elements of Risk-Focused Examinations

The Financial Condition Examiners Handbook was revised to incorporate a seven-phase process for conducting risk-focused examinations. These phases are:

1. Understand the company and identify key functional activities to be reviewed;
2. Identify and assess the risks inherent in the company’s activities;

3. Identify and evaluate the company's risk mitigation strategies and controls;
4. Determine the residual risk for identified sub-activities and the overall residual risk by key activity;
5. Establish and conduct the examination procedures that will be performed;
6. Update the prioritization of the company and its supervisory plan; and
7. Draft the examination report and management letter based on the findings of the examination.

Phase 1 has several parts, including: 1) understanding the company; 2) understanding its corporate governance structure; 3) assessing the adequacy of its audit function; 4) identifying the company's key functional activities; and 5) determining its business and prospective risks. In this phase, the examiner is expected to develop a thorough understanding of a company based on various sources of information. This involves becoming familiar with the scope and nature of the company's business activities. Key activities and sub-activities would be identified using a top-down approach.

In Phase 2, the objective is to identify and assesses the risks inherent in a company's activities. "Inherent risk" could be defined as the risk of economic loss or inaccurate financial reporting before considering the adequacy of internal controls designed to mitigate risk. An examiner may identify risk from the insurer's own risk assessment, internal and external audits, filing requirements imposed by the Securities and Exchange Commission (SEC) and Sarbanes-Oxley, interviews with management, and other sources. Nine risk classifications have been developed to assist regulators in categorizing the inherent risks:

- Credit;
- Market;
- Pricing/Underwriting;
- Reserving;
- Liquidity;
- Operational;
- Legal;

- Strategic; and
- Reputational.

After the primary risks are identified within the key business units, examiners are expected to use their professional judgment to assess the inherent risk in each area by determining the probability of occurrence and the magnitude of the impact (i.e., potential impact or potential materiality of a risk) to achieve an overall risk assessment. These nine risk classifications play a key role in how risk-focused exams are oriented and where examiners focus their attention.

In Phase 3, examiners are expected to identify and evaluate the controls a company has in place to mitigate the inherent risks in each of the nine categories. The internal controls should be assessed to determine how well they mitigate the identified inherent risks. Risk mitigation strategies encompass the policies and procedures used by a company to achieve its internal control objectives. It could be argued that in identifying and evaluating a company's internal controls in the nine risk categories, consideration should be given to the size and scope of the company's operations. This observation applies to both Phase 2 and Phase 3. Smaller companies with a more limited scope of operation may not have significant risks in certain areas (e.g., legal, strategic, etc.). Nonetheless, examiners must still determine the relevance of the risks and internal control for a company in each category. Also, if controls are determined to be ineffective or non-existent, then no further assessment is necessary. Examiners must still obtain or produce documentation to support their determinations as to the existence and adequacy of internal controls.

The Financial Condition Examiners Handbook indicates that risk mitigation strategies are generally based on five overarching principles: 1) active board and management; 2) adequate risk management; 3) adequate policies and procedures; 4) comprehensive internal controls; and 5) processes to ensure regulatory compliance. In evaluating the design of a company's risk mitigation strategies, examiners would be expected to consider: 1) the extent of a company's management of risk; 2) the adequacy or reasonableness of the assumptions that it makes; 3) whether the policies and guidelines that have been adopted are appropriate; 4) whether the company's information systems are up to the task of implementing its risk mitigation strategies; and 5) the company's ability to respond to changing risks. Examiners must then determine the operating effectiveness of a company's risk mitigation strategies and conduct tests of their operating effectiveness. Ultimately, this leads to an overall assessment of how well a company's internal controls mitigate its inherent risks leading to a determination that its risk management is strong, moderate, or weak. This leads to Phase 4 in which examiners determine the "residual risk" for

identified sub-activities to determine the overall residual risk for each key activity. This assessment is made by determining how well a company's internal controls reduce the level of the inherent risk involved with each sub-activity using probability, impact, and professional judgment. Essentially, residual risk is determined by "subtracting" the effect of internal controls from the magnitude of each inherent risk and then applying professional judgment to adjust the results of this calculation to develop an overall residual risk assessment for each key activity. The overall residual risk for each key activity can be rated as high, moderate, or low. In turn, the residual risk determined for each activity can be used as a basis for determining where to focus examiner/analyst resources most efficiently.

In Phase 5, the results of the residual risk assessment are used to determine the exam procedures that will be conducted. The objective is to select examination procedures to correspond with the level of residual risk determined for each key activity. Where residual risk is determined to be high, substantive procedures are deemed to be warranted that could involve further detailed analysis and testing. Where residual risk is determined to be moderate, less substantive procedures would be required. Where residual risk is determined to be low, there may be limited or no substantive procedures conducted.

Phase 6 requires relevant material findings from a company's risk assessment and any other examination results to be used in prioritizing the company with respect to further monitoring and analysis and developing a supervisory plan for the company. Historically, an insurer's prioritization was based on periodic reviews by regulatory financial analysts conducted annually, quarterly, or on a more frequent basis if deemed necessary. Prioritization allows regulators to focus their attention on companies and areas within those companies where there is the most risk. The new risk-focused surveillance process still considers those reviews in prioritization, but now it also considers the information that is derived from the risks assessed during the financial examination. The results of risk-based examinations provide further information with respect to the additional factors that can be used in determining a company's priority level, including its risk mitigation strategies, corporate governance, residual risks, and prospective risks.

In turn, a company's prioritization and any associated analysis can be used to establish a going-forward supervisory plan. The supervisory plan is a state-specific document that is included in the exam work papers for a company and is treated as a confidential document. Components of the plan may be discussed with a company's management as needed. A supervisory plan would include an overview of the current plan, a program for further monitoring and analysis, planned meetings with company management, and examination information

relevant to the company's ongoing supervision. The development and effective implementation of a good supervisory plan for each company is very important given that on-site financial exams typically occur every five years, but can be scheduled more frequently (as well as targeted exams) if the circumstances warrant it.

In Phase 7 (the final phase), an examination report is drafted. It should provide an assessment of the financial condition of the company and provide findings of fact with respect to any material adverse finding uncovered in the examination. Typically, a draft exam report will be prepared and shared with the company to allow it to respond to any findings with which it disagrees. Examiners will consider the company's comments (if there are any), make any revisions they deem appropriate, and then issue a final report that becomes a matter of public record. The examiners may also draft a management letter to convey results and observations made during the examination that are not deemed appropriate for the public examination report. A management letter would be retained as a confidential document as part of the exam work papers. It should be presented to the company's board of directors or management and may serve as a basis for further discussion with company regarding any issues or concerns that regulators may have regarding its financial condition or risk management.

Assessment of Risk-Focused Examinations

In theory, risk-focused examinations should constitute a major advancement in how regulators conduct financial exams and where they direct their focus. If conducted properly, they should enable regulators to develop a much better understanding of a company's risks (both current and prospective) and how well they are managed. In turn, if regulators determine that a company has taken on an excessive amount of risk or if there are significant deficiencies in its risk management activities, the regulators can be more proactive in taking remedial actions that could prevent the company from getting into severe financial distress, or at least lower the cost of its impairment or bankruptcy if the problems cannot be remedied. Also, knowing that they will be subject to risk-focused exams should help to encourage companies to have good risk management programs and adequate internal controls to the extent that any are not otherwise motivated to do so.

An important question is how well risk-focused examinations are being conducted in practice. This is a difficult question to answer due to the fact that most states began using these processes in 2010. In addition, there is a lack of comprehensive information on, or assessments of, actual examination practices that have been made public. There are, however, three sources of information that can be used to develop an initial perspective on how well regulators are

doing in conducting risk-focused examinations. In March 2010, the NAIC commenced the Examination File Review Project, which is conducted by NAIC staff. Although the results of this project have not been made public, two documents have been produced from which one might draw some inferences about what the NAIC staff found in conducting their reviews, and suggestions that they have made to NAIC committees with respect to how the NAIC could help the states improve their examination processes. The first document is a memo from the chair of the Financial Condition (E) Committee in response to suggestions made by NAIC staff. The second document is a memo from the Chief Financial Regulator's Forum on Risk-Focused Examination Reserving Issues. In addition, the author interviewed the managers of several companies domiciled in several states that have undergone risk-focused examinations.

In general, the NAIC documents indicate that there is considerable room for improvement in terms of how many states are implementing the new exam procedures.³⁸ This should not be a surprise as many states did not begin conducting risk-focused exams until 2010. Undoubtedly, many examiners have to climb a steep learning curve in implementing the revised procedures. As they conduct more exams and become more familiar with the revised procedures, their performance should improve. Also, additional support from the NAIC as recommended by the chair of the Financial Condition (E) Committee should help examiners progress more quickly in conducting risk-focused examinations in the manner envisioned when the handbook was revised.

The recommendations made by the chair of the Financial Condition (E) Committee are briefly summarized here. His first recommendation is the development of a supervisory best practices program. This would involve replacing or supplementing the current examination review program conducted by NAIC staff with a program in which a group of exam supervisors would convene to review and discuss completed exam files to develop best practices and to suggest improvements to states submitting exam files. Additionally, it envisioned that once states have been through this program, they will evaluate their internal peer review processes to ensure that all examinations employ best practices.

A second recommendation strongly supported by the chair is to increase the focus on prospective risk/reduction in financial statement verification implying that some (maybe many) states are still placing too much emphasis on financial statement verification relative to the amount of effort they are devoting to identifying and evaluating the most significant prospective risks that a company faces that could affect its future solvency. The amount of time

³⁸ This observation is consistent with the results of the interviews conducted by the author that are discussed below.

spent on financial statement verification for high-risk areas such as reserves and the valuation of riskier assets may be viewed as reasonable, but less attention to financial statement verification may be warranted to allow examiners to give greater focus to the most important issues for a given company. A third recommendation advocated reinstating the Risk Assessment Implementation Subgroup as the Risk-Focused Surveillance Working Group and making it responsible for successful implementation of the risk-focused approach for both examination processes and other analyses that are performed.³⁹ Lastly, the chair has requested that the NAIC staff consider how examination software tools could be improved to make the process of selecting the risks that will be analyzed and the procedures to be performed during an examination more efficient than it currently is.

The memo from the Chief Financial Regulator's Forum is short but interesting. It states that the Examination File Review Project has identified several implementation issues relating to the coordination and communication between financial examiners and actuaries in conducting risk-focused examinations. The memo lists "some" of the common problems and issues that were identified through the NAIC staff's review of completed risk-focused examinations. The problems/issues cited in the memo are:

- Lack of communication and coordination between the financial examiners and the actuaries;
- Confusion over how to contract with a consulting actuary to participate in a risk-focused exam;
- Insufficient or incomplete matrix documentation related to the investigation of reserving risks;
- Defaulting to an independent actuarial estimate of loss reserves in Phase 5 of the risk-focused exam without investigating company processes and controls in Phase 3;
- Confusion over how to review processes and controls when the insurer relies on an external actuary to calculate its loss reserves;
- Lack of financial examiner review of the completed actuarial work;
- Problems in receiving the completed actuarial work on a timely basis;

³⁹ This recommendation was implemented with establishment of the Risk-Focused Surveillance Working Group in June 2011.

- Confusion over what is an appropriate amount of evidence to support an assessment of “strong” controls relating to reserving risks;
- Confusion over when a credentialed actuary should be used in an examination; and
- Confusion over the minimum amount of work that should be performed in reviewing reserving risks in an examination (e.g. Schedule P review).

The memo is addressed to both the Casualty Actuarial and Statistical (C) Task Force and the Risk-Focused Surveillance (E) Working Group. It suggests that, due to the nature and extent of the issues that have been identified, it may be appropriate for the two groups to develop additional guidance and training for examiners and actuaries to help them address these issues.

As noted above, the author interviewed the management of several companies that had undergone risk-focused examinations by their respective domiciliary state. All of the managers interviewed support the concept of risk-focused examinations. They believe that if conducted properly, risk-focused exams make better use of examiners’ time and effort by concentrating on the material risks faced by a company and how well it is managing them as contrasted with the traditional approach, which emphasizes the verification of an insurer’s account balances. This view is consistent with how the NAIC has characterized the objectives of risk-focused exams and how they should be conducted. However, the experience of the companies interviewed in regard to how their exams were actually conducted is mixed.

Two of the companies interviewed are based in the same state and their experience was relatively positive. One company had its first risk-focused exam in 2006. The second company had its first risk-focused exam in 2010. Both indicated that they felt that their exams were conducted properly for the most part. In their view, the examiners performed well in following the intent and procedures outlined in the revised examination handbook. This included good pre-exam preparation and planning, developing a thorough understanding of each company’s business and the nature and scope of its operations, and an appropriate evaluation of each company’s material risks and the adequacy of its internal controls. The second company noted its exam took only four months in contrast to its previous exam that took nine months.

Based on the observations of both companies, it appears that a significant contributing factor to their positive experience was the high degree of professionalism exhibited by the examiners and the leadership of the chief examiner, who was a strong advocate of risk-focused exams and had a good

understanding of how they should be conducted. Interestingly, both company exams were conducted by contract examiners. This was necessary as the department was forced to outsource its examinations due to budget cuts imposed by the governor in 2006. The contract examiners were formerly department personnel so it does not appear that the companies' experience would have been different if the examiners had been retained as department employees.

A third company based in a different state underwent an "experimental" risk-focused exam in 2006. It was the first company in that state to be examined using a risk-focused approach. Because of this fact and the examiners' lack of experience with risk-focused exams, the company and the department had an understanding with each other about the conduct of the exam and a good working relationship aimed at making the exam as successful as possible. While it was evident the examiners were not experienced in conducting risk-focused exams, the company's experience was better than it anticipated. The exam was completed in nine months in contrast to its previous exams that had taken 12 months-18 months. No other companies based in this state were interviewed so no direct observations were obtained on their experience with risk-focused exams. Still, it is reasonable to surmise that because this state began conducting risk-focused exams in 2006, its examiners have become more experienced with risk-focused exam procedures over time, and this would be expected to result in relatively positive experiences for companies that have recently undergone risk-focused exams in that state.

The experiences of two other companies based in different states have been less positive. One company, based in a fairly large state, expressed a number of concerns about how its first risk-focused exam was conducted. The company expressed the opinion that the examiners did not do a good job of pre-exam preparation and planning. Although the company completed and submitted the pre-exam questionnaire, the examiners appeared unsure of what they were supposed to do when they arrived on site. They conducted in-depth interviews with company management but did not interview board members. The company also expressed a concern that the examiners seemed to apply a "one-size-fits-all" approach that did not reflect the relatively small size of the company and the limited scope of its operations and complexity. In other words, the company believed the examiners were reluctant to exercise their professional judgment in scaling the exam to fit the particular nature of the company and the genuine material risks it faces. It also appears that the post-exam process was somewhat lacking. There was little interaction with the company following the exam, and the company did not receive its management letter until one year after the exam.

The final company interviewed (also based in a relatively large state) also had a less than positive experience with its first risk-focused examination. As with the company discussed above, the examiners appeared unprepared to conduct the exam when they arrived on site. The company was forced to initiate the pre-exam interviews and had to wait a month before they were conducted. The company also expressed the concern that the examiners placed too much emphasis on non-material areas. The examiners also failed to look at a recent acquisition by the company that it believed to be important in assessing its risks and how well it managed those risks. However, the post-exam process appeared more substantive than that experienced by the company discussed above.

In sum, based on these five interviews, it appears the experience of companies that have undergone risk-focused exams varies. One might infer from these interviews that examiners' lack of experience and familiarity with conducting risk-focused exams is more likely to result in a less positive experience for a company, although it appears that this is not always the case. Even a department that is conducting risk-focused exams for the first time can take steps to help its examiners do a better job in conducting risk-focused exams with better orientation, adequate training, and good leadership. This underscores the conclusions that the NAIC has appeared to reach regarding how well risk-focused exams are being conducted. In this context, the implementation of the recommendations made by the chair of the Financial Condition (E) Committee regarding programs and steps the NAIC should undertake to help the states in improving their performance in conducting risk-focused examinations could prove to be vital in accelerating their progress and achieving the goals of an effective and efficient risk-focused surveillance system.

Chapter VII

Price, Product, and Market Conduct Regulation

Price or rate regulation deserves some discussion even though it is not a focus of the National Association of Insurance Commissioners (NAIC) Solvency Modernization Initiative (SMI). In the U.S., the extent and stringency of rate regulation varies significantly by line and by state. The lines subject to the greatest rate regulation are personal auto, homeowners', workers' compensation, and health insurance. In most states and markets, regulators do not ordinarily attempt to impose severe price constraints. The problem arises when strong cost pressures compel insurers to raise their prices and regulators resist market forces in an ill-fated attempt to ease the impact on consumers.⁴⁰ Inevitably, severe market distortions occur. Ultimately, insurance markets can be sucked into a downward spiral as the supply of private insurance evaporates and state mechanisms are forced to cover the gap. Rate suppression also can decrease incentives to reduce risk, which can lead to rising claim costs that further increase pricing and market pressures. Together, these developments can create major crises in the cost and supply of insurance.

One example of where rate regulation has gone awry is homeowners' insurance in Florida, where there is a substantial exposure to hurricanes. Florida regulators have imposed tight constraints on homeowners' insurance rates since Hurricane Andrew struck the state in 1992. As a consequence, many large national insurers have exited the market or substantially reduced the amount of homeowners' insurance they write. They have been replaced by a large number of small, single-state, or regional insurers with most of their exposures concentrated in Florida (Grace and Klein, 2009). The number of policies in the residual market for property insurance (the Citizens Property Insurance Corporation) has grown from approximately 400,000 in 1993 to almost 1.5 million in April 2012.

The argument for rate deregulation is fairly straightforward. One would expect that prices in competitive insurance markets would be actuarially fair and not excessive. Also, competition should drive insurers to be efficient, and prices should gravitate to the lowest possible level necessary to cover the costs of an efficient insurer, including its cost of capital or a "fair" profit. If one accepts the notion that competitive prices are desirable and insurers will charge such prices in the absence of government intervention, then there is no need for rate regulation if insurance markets are competitive. The empirical research overwhelmingly confirms both the competitive nature of insurance markets and the lack of benefits from rate regulation (Harrington, 2002). Requiring or authorizing regulators to regulate rates invites political pressure and interference that can lead

⁴⁰ Regulators may seek to suppress overall rate levels and/or compress rate differentials between low- and high-risk insureds.

to the dismal scenario described above. Hence, further deregulation of insurance pricing in the U.S. seems warranted and would enable regulators to allocate more resources to addressing true market failures. Unfortunately, there is no indication that the NAIC has targeted price deregulation as a major priority.

There is some economic basis for the regulation of insurance products, especially products purchased by individuals and small businesses. Because unsophisticated buyers may find it difficult to fully understand the provisions of an insurance contract, unscrupulous insurers could take advantage of this situation by selling contracts that may contain major gaps in coverage or other provisions that would be unduly detrimental to consumers. Hence, one could argue that there is justification for some level of insurance product regulation for unsophisticated buyers.

The issue then turns to how insurance products should be regulated. Currently, the states subject insurance policies purchased by individuals and small businesses to prior approval by insurance regulators. While the prior approval of insurance policies is not a concern per se, the requirements that some states impose on insurance policies can be problematic. Some of these requirements appear very idiosyncratic and do not produce significant benefits for consumers. For example, a state may mandate that a certain benefit be provided in insurance policies sold in that state that is not required in other states. In addition, the review and approval process in some states can be lengthy and tortuous for insurers. The NAIC has created mechanisms that attempt to make the process for submitting and obtaining approval of insurance products more efficient, but significant problems remain in the view of many insurers.

A good case also can be made for some regulation of market conduct in insurance that includes both insurance companies and their intermediaries. As in the case of insurance products, unsophisticated insurance buyers are potentially subject to unfair treatment by insurers.⁴¹ In the U.S., the concern lies less with the scope of market conduct regulation and more with the methods used to regulate market conduct. Currently, the states subject insurers to extensive, duplicative, and costly examinations that focus too much on minor errors and too little on major patterns of abuse. In other words, regulators miss the “forest for the trees.” Regulators also fail to recognize and encourage insurer self-compliance efforts. Klein and Schacht (2001) discuss the problems with the current system and suggest a more effective and efficient approach to market conduct monitoring that would maximize reliance on self-regulatory mechanisms and concentrate regulatory investigation and enforcement on significant problems.

⁴¹ One could argue that most insurance companies have strong incentives to treat consumers fairly. However, in the absence of regulation, there could be some companies without these incentives that would attempt to take unfair advantage of consumers.

Chapter VIII

Summary and Conclusions

Insurance regulation in the U.S. has undergone significant reforms over its 150-year history. Some of these changes occurred incrementally while others were adopted during episodes of reforms in which regulators sought to respond to crises or other developments that required improvements in regulatory structures and policies. U.S. insurance regulators are currently embarked on such a mission in the form of the National Association of Insurance Commissioners' (NAIC) Solvency Modernization Initiative (SMI), which will result in the most significant set of reforms that have been implemented since the early 1990s. The NAIC's SMI is primarily motivated by a desire to implement best practices in U.S. insurance regulation based upon a review of significant changes in insurance regulatory policies and methods at an international level, including Solvency II in the European Union (EU). The recent financial crisis has added further impetus to the SMI as regulators have considered its implications for the financial supervision of insurance companies. This paper evaluates the principal elements of the NAIC's SMI as well the evolution of its risk-focused surveillance framework and the regulation of insurers' prices, products, and market conduct.

The NAIC's SMI is focused on five key aspects of solvency regulation: 1) capital requirements; 2) governance and risk management; 3) group supervision; 4) statutory accounting and financial reporting; and 5) reinsurance. In addition, the NAIC's program on risk-focused surveillance, although not specifically marked as an area of regulatory reform in the SMI, is nonetheless an important indicator of how U.S. regulators are shifting their focus on what is most important in a modern supervisory system. U.S. regulators' implementation of risk-focused examinations is of particular interest and explored in some detail in this paper.

Taken together, the various elements of the NAIC's reform agenda should result in significant improvements to the U.S. system for the financial supervision of insurance companies and potentially achieve the goal of achieving best practices in a U.S. context, and also compared to international regulatory standards. That said, some specific comments are warranted regarding how U.S. regulatory reforms will measure up to changes in the regulatory systems that are being developed in other jurisdictions, particularly the EU. The area where there appears to be the greatest divergence is the approach to capital standards for insurers. Under the SMI, several significant improvements will be made to the NAIC's risk-based capital system that will ultimately be implemented by the various states. However, with some limited exceptions, it appears that U.S. regulators are opposed to the idea of a broader use of capital modeling in contrast to the approach promoted under Solvency II.

At the same time, it should be noted that it appears that U.S. regulators have been shifting their emphasis from a reliance on capital standards to forward-looking financial monitoring that aims to identify insurers that are likely to experience financial distress due to excessive risk-taking. The prime example of this is the NAIC's development of a mandatory insurer-generated Own Risk and Solvency Assessment (ORSA). If U.S. regulators are successful in this endeavor, they will be able to make a strong argument that the full scope of tools at their disposal will enable them to achieve regulatory outcomes equivalent to those that will be achieved in the EU and other jurisdictions with robust regulatory systems.

Hence, the full implementation of the other reforms contemplated under the NAIC's SMI and its risk-focused solvency frameworks will be important in realizing the modern system of financial supervision that U.S. regulators desire. The significant changes that are being developed with respect to corporate governance and risk management, including the ORSA requirement, and group supervision should result in significant enhancements to the U.S. system for insurance solvency regulation.

With regard to U.S. statutory accounting standards, the current system has performed well and U.S. regulators are positioned to incorporate any changes in U.S. Generally Accepted Accounting Principles and International Financial Reporting Standards that are warranted. The NAIC has also adopted changes to its model law and regulation that determine the collateral requirements imposed on reinsurers that will allow the individual states to scale these requirements according to the financial strength and adequacy of regulation of a given reinsurer. However, based on the inferences that can be drawn from the conduct of risk-focused examinations, the states have considerable work to do to realize the potential of a true risk-focused surveillance framework. This should be a major priority for the NAIC and states.

The states should also make significant changes in how they approach the regulation of insurers' price, products, and market conduct. From an economic perspective, there is no need for the kind of price regulation that some states still impose in major lines of insurance. Consequently, the NAIC should develop and lead an initiative to achieve price deregulation. There is some economic justification for the regulation of insurers' products and market conduct, but current state practices in these areas are inefficient and overly repressive in some respects. Hence, significant reforms in these areas also are warranted.

References

Ashby, Simon, Sharma, Paul, and McDonnel, William, 2003, Lessons about Risk: Analyzing the Causal Chain of Insurance Company Failure, *Journal of Insurance Research and Practice* 18/2: 4–15.

Butsic, Robert. P., 1993, Report on Covariance Method for Property-Casualty Risk-Based Capital, *Casualty Actuarial Society Forum*, Summer: 173–202.

Brown, Jeffrey R. and Goolsbee, Austan, 2002, Does the Internet Make Markets More Competitive? Evidence from the Life Insurance Industry, *Journal of Political Economy*, 110/3: 481-507.

Preeti, ChandraShekar and Warriar, S.R., 2007, Risk-Based Capital Management: A “Principles Based Approach” to Insurer Solvency Management, May 29, 2007.

Cummins, J. David, ed. 2002, *Deregulating Property-Liability Insurance: Restoring Competition and Increasing Market Efficiency* (Washington, D.C.: AEI-Brookings Joint Center for Regulatory Studies).

Cummins, J. David, Harrington, Scott E., and Klein, Robert W., 1995, Insolvency Experience, Risk-Based Capital, and Prompt Corrective Action in Property-Liability Insurance, *Journal of Banking & Finance*, 19/3-4: 511-527.

Cummins, J. David and Weiss, Mary A., 1991, The Structure, Conduct, and Regulation of the Property-Liability Insurance Industry, *Federal Reserve Bank of Boston Conference Series*, 117-164.

Cummins, J. David and Weiss, Mary A., 2010, Systemic Risk and the Insurance Sector, Working Paper, Temple University, September 14. <http://ssrn.com/abstract=1725512>.

Cummins, J. David, Grace, Martin F., and Phillips, Richard D., 1999, Regulatory Solvency Prediction in Property-Liability Insurance: Risk-Based Capital, Audit Ratios, and Cash Flow Simulation, *Journal of Risk and Insurance*, 66/3: 417–458.

Cummins, J. David and Phillips, Richard D., 2009, Capital Adequacy and Insurance Risk Based Capital Systems, *Journal of Insurance Regulation*, 28/1: 25-72.

Deloitte LCC, 2008, *The IFRS Journey in Insurance: A Look Beyond the Accounting Changes*, Research Report.

Dionne, Georges, 2001, Commitment and Automobile Insurance Regulation in France, Quebec and Japan, Working Paper, HEC Montreal.

Elderfield, Matthew, 2009, Solvency II: Setting the Pace for Regulatory Change, *The Geneva Papers on Risk and Insurance: Issues and Practice*, 34: 35-41.

Eling, Martin, Schmeiser Hato, and Schmit, Joan T., 2007, The Solvency II Process: Overview and Critical Analysis, *Risk Management & Insurance Review*, 10/1: 69-85.

Eling, Martin, Klein, Robert W., and Schmit, Joan T., 2007, A Comparison of Insurance Regulation in the United States and the European Union, Policy Report, The Independent Institute, Oakland, Calif.

European Parliament, 2007, Final Report of the European Parliament's Inquiry Into the Crisis of the Equitable Life Assurance Society, May 25.

Farny, Dieter, 1999, The Development of European Private Sector Insurance over the last 25 Years and the Conclusions that can be drawn for Business Management Theory of Insurance Companies, *Geneva Papers on Risk and Insurance* 24/2: 145–162.

Feldblum, Sholom, 1996, NAIC Property/Casualty Insurance Company Risk-Based Capital Requirements, *Proceedings of the Casualty Actuarial Society*, LXXXIII: 297–418.

Grace, Martin F., Harrington, Scott E., and Klein, Robert W., 1998, Risk-Based Capital and Solvency Screening in Property-Liability Insurance, *Journal of Risk and Insurance* 65/2: 213–243.

Grace, Martin F., Klein, Robert W., and Phillips, Richard D., 2002, Managing the Cost of Property-Casualty Insurer Insolvencies, Report to the National Association of Insurance Commissioners, December.

Grace, Martin F. and Klein, Robert W., 2007, The Effects of an Optional Federal Charter on Competition in the Life Insurance Industry: SSRN.

Grace, Martin F. and Klein, Robert W., 2008, Understanding Property-Casualty Insurance Profits: The Importance of Financial Strength, Report to the Insurance Information Institute and the American Insurance Association.

Grace, Martin F. and Klein, Robert W., 2009, The Perfect Storm: Hurricanes, Insurance and Regulation, *Risk Management and Insurance Review*, 12/1: 81-124.

- Grace, Martin F., 2010, The Insurance Industry and Systemic Risk: Evidence and Discussion, Networks Financial Institute Policy Brief 2010-PB-02, April.
- Hanson, Jon S., Dineen, Robert E., and Johnson, Michael B., 1974, Monitoring Competition: A Means of Regulating the Property and Liability Insurance Business (Milwaukee, Wis.: NAIC).
- Harrington, Scott E., 1992, Rate Suppression, *Journal of Risk and Insurance*, 59: 185-202.
- Harrington, Scott E., 2002, Effects of Prior Approval Rate Regulation of Auto Insurance. In Cummins, David J., ed., *Deregulating Property-Liability Insurance: Restoring Competition and Increasing Market Efficiency* (Washington, D.C.: AEI-Brookings Joint Center for Regulatory Studies).
- Harrington, Scott E., 2011, Insurance Regulation and the Dodd-Frank Act, Networks Financial Institute Policy Brief 2011-PB-01, March.
- Holzmuller, Ines, 2009, The United States RBC Standards, Solvency II and the Swiss Solvency Test: A Comparative Assessment, *Geneva Papers on Risk and Insurance: Issues and Practice* 34: 56-77.
- Hussels, Stephanie and Ward, Damian R., 2006, The Impact of Deregulation on the German and UK Life Insurance Markets: An Analysis of Efficiency and Productivity Between 1991 and 2002, Working Paper No. 06/10, University of Bradford School of Management.
- Klein, Robert W., 1995, Insurance Regulation in Transition, *Journal of Risk and Insurance*, 62: 263-404.
- Klein, Robert W. and Schacht, James, 2001, An Assessment of Insurance Market Conduct Surveillance, *Journal of Insurance Regulation*, 20: 51-93.
- Klein, Robert W., 2005, *A Regulator's Introduction to the Insurance Industry*, 2nd Edition, (Kansas City, Mo.: NAIC).
- Klein, Robert W., 2009, The Future of the Financial Monitoring of Insurance Companies in the U.S., *Journal of Insurance Regulation*, 28/1: 73-8.
- Leadbetter, Darrell and Dibra, Suela, 2008, Why Insurers Fail: The Dynamics of Property and Casualty Insurance Insolvency in Canada, *Geneva Papers on Risk and Insurance: Issues and Practice* 33: 464-488.

National Association of Insurance Commissioners, 2011, Solvency Modernization Initiative: Roadmap, November 30, Kansas City, Mo., available at http://www.naic.org/documents/committees_ex_isftf_smi_roadmap_111130.pdf.

National Association of Insurance Commissioners, 2011, RBC Overview and Instructions-Property Casualty, Kansas City, Mo..

National Association of Insurance Commissioners, 2012, NAIC Statement regarding Adoption of RMORSA Model Act and Revisions to AG38, Kansas City, Mo., available at http://www.naic.org/Releases/2012_docs/naic_statement_adoption_rmorsa_model_act_ag38.htm.

National Association of Insurance Commissioners, 2012b, letter to Edward R. Royce from Kevin M. McCarty, Kansas City, Mo., available at http://www.naic.org/documents/committees_ex_grlc_120320_royce_letter.pdf.

Pottier, Stephen and Sommer, David, 2002, The Effectiveness of Public and Private Sector Summary Risk Measures in Predicting Insurer Insolvencies, *Journal of Financial Services Research*, 21/1: 101–116.

Munch, Patricia and Smallwood, Dennis E., 1981, Theory of Solvency Regulation in the Property and Casualty Insurance Industry, in Gary Fromm, ed., *Studies in Public Regulation* (Cambridge, Mass.: MIT Press).

Rees, R., Kessner, E., Klemperer, P., and Matutes, C., 1999, Regulation and Efficiency in European Insurance Markets, *Economic Policy* 14/29: 363–397.

Scherer, F. M. and Ross, David S., 1990, *Industrial Market Structure and Economic Performance* (Boston: Houghton-Mifflin).

Sharma, Paul, 2002, Prudential Supervision of Insurance Undertakings, Conference of Insurance Supervisory Services of the Member States of the European Union, Report, December at http://ec.europa.eu/internal_market/insurance/docs/solvency/impactassess/annex-c02_en.pdf.

Spulber, Daniel F., 1989, *Regulation and Markets* (Cambridge, Mass.: MIT Press).

Stichele, Myriam V., 2008, Financial Regulation in the European Union: Mapping EU Decision Making Structures on Financial Regulation and Supervision, Report, Centre for Research on Multinational Institutions, December at http://somo.nl/publications-en/Publication_3198/?searchterm=Financial%20Regulation.

Stricker, Angelika, 2012, EU May Delay Tough New Rules for Insurers, Chicago Tribune, September 19 at http://articles.chicagotribune.com/2012-09-19/business/sns-rt-us-eu-insurancebre88i135-20120919_1_long-term-life-insurance-contracts-solvency-ii-force-insurers.

Tiner, John, 2007, Principles-Based Regulation – Looking to the Future, Speech at the FSA Insurance Sector Conference, March 21.

Vaughan, Therese M., 2009, The Implications of Solvency II for U.S. Insurance Regulation, Networks Financial Institute Policy Brief PB-2009-03, February.

Viscusi, W. Kip, Harrington, Joseph E., and Vernon, John M., 2000, Economics Of Regulation And Antitrust (3rd ed.) (Cambridge, Mass., MIT Press).

Wang, Shaun, Klein, Robert, Ma, Gang, Ulm, Eric, Xiangjing Wei, and Zanjani, George, 2009, The Financial Crisis and Lessons for Insurers, Report for the Society of Actuaries, September.

About the Author

Dr. Robert W. Klein is an associate professor of risk management and insurance at Georgia State University in Atlanta. Dr. Klein is an expert on the economics of insurance markets and public policy and regulatory issues in insurance. Dr. Klein has written numerous publications on various topics in insurance and its regulation, including the structure and performance of insurance markets, monitoring competition, price regulation, catastrophe insurance problems, urban insurance issues, workers' compensation, solvency regulation, life insurance, and international insurance regulation.

Dr. Klein has conducted a number of studies related to the issues concerning the availability, cost, and purchase of insurance products by low-income households. He led an extensive regulatory research project on the availability and cost of auto and home in low-income and minority areas, which was followed by further research on these topics when he joined GSU's faculty. He also has conducted extensive research on catastrophe risk and insurance issues, various aspects of insurance regulatory policies and frameworks, international comparisons of workers' compensation systems, crop insurance, and life insurance, among other areas.

Dr. Klein has testified frequently at federal/state legislative and regulatory hearings on significant issues affecting insurance consumers and the industry. Prior to joining Georgia State University in September 1996, Dr. Klein was the director of research and chief economist for the National Association of Insurance Commissioners. He also has served as a staff economist for the insurance department and state Legislature in Michigan.

“**Robert W. Klein** skillfully deconstructs the current U.S. solvency regulatory regime, highlighting the critical role of the National Association of Insurance Commissioners while evaluating the impact of recent NAIC-sponsored innovations such as ‘risk-focused surveillance’ of insurers’ financial condition. Klein then examines, in painstaking detail, the European Union’s complex and multi-faceted Solvency II directive, comparing it to the U.S. system with respect not only to discrete rules and practices, but with an eye toward identifying differences between the two systems’ overarching objectives and philosophical underpinnings.

“Dr. Klein’s objective and unbiased treatment of the ongoing solvency modernization project will serve to inform industry professionals, media analysts and commentators, and policymakers both in the U.S. and abroad.”

From the Foreward by Charles M. Chamneess, NAMIC President & CEO

NAMIC[®]
The difference is in the experience[®]
public policy | advocacy | education | networking | insurance | services

3601 Vincennes Road, Indianapolis, IN 46268
317.875.5250
www.NAMIC.org