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## **Issues for Consideration in the Solvency Modernization Initiative**

### **Introduction**

The NAIC's Solvency Modernization Initiative (SMI) was announced in June 2008. The SMI "would draw together the various activities underway at the NAIC, as well as examine international developments and their potential use in U.S. insurance regulation. While the U.S. annually improves its regulatory solvency system to adjust the system as needed, especially regarding the annual update to the RBC formula and factors, the initiative includes focus on five key solvency areas: capital requirements, international accounting, insurance valuation, reinsurance, and group solvency issues."<sup>1</sup>

The initiative includes the following:

- articulation of the U.S. solvency framework and principles,
- study of other sectors' and other countries' solvency and accounting initiatives and the tools that are used and proposed,
- creation of a new reinsurance regulatory framework,
- movement to principles-based reserving for life insurance products,
- consideration of possible change to group supervisory methods, and
- implementation of new ideas to incorporate into the U.S. solvency system.

This paper is designed to provide some initial ideas for consideration in the Solvency Modernization Initiative, albeit not an exhaustive list.

### **Framework, Principles, and Roadmap**

The SMI will include articulation of the U.S. solvency framework and principles in one cohesive document to help convey foundational concepts underlying the U.S. regulatory system and their interrelationships, as well as provide a platform for continued development. The compiled principles would facilitate dialogues with other jurisdictions and institutions and bring about a constructive reconciliation of U.S. solvency principles with solvency regimes in other countries. The consolidated principles would also provide a foundation for the NAIC to establish clear goals, priorities and long-term modernization plans that would result in a solvency assessment framework consistent with regulatory best practices.

Of use in this process will be the principles that currently support the U.S. framework and are embodied in numerous NAIC literature including the Accounting Practices and Procedures Manual, Financial Examiners Handbook, Financial Analysis Handbook, and Risk-Based Capital and in state laws and regulations

At the 2008 Fall National Meeting, the International Solvency and Accounting Working Group (Working Group) referred the creation of a framework and principles document to the Financial Condition (E) Committee.

Once the current NAIC framework and principles are consolidated and documented, the NAIC should evaluate the framework and principles for potential modification and establish a roadmap with deadlines. Interested parties have provided us with numerous ideas for what should be considered in a future framework and we will consider those ideas.

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<sup>1</sup>Therese M. Vaughan, "The Implications of Solvency II for U.S. Insurance Regulation," February 2009, Networks Financial Institute

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### **Study of Other Solvency and Accounting Initiatives**

The NAIC's Solvency Modernization Initiative includes analysis of other financial supervisory modernization initiatives, to the extent appropriate. Analysis should include the following:

- the Basel II international capital framework for banks and implementation in the U.S.;
- solvency work by the International Association of Insurance Supervisors (IAIS);
- solvency proposals in place or under development in other jurisdictions, including Australia, Canada, Switzerland and the EU; and
- accounting standards being developed by the International Accounting Standards Board (IASB).

The study of international solvency ideas will assist the Working Group in identifying potential enhancements to the current NAIC solvency system and in assessing the U.S. principles. To this end, the Working Group has decided to invite speakers to further educate on the international solvency ideas. The Working Group will also review and use available information presented to the Reinsurance (E) Task Force. The Working Group may contact the IAIS to offer cooperative assistance in performing comparative analyses of existing solvency regimes and may consider engaging a consulting firm to undertake a solvency comparison of relevant jurisdictions.

### **Solvency II Specifics**

The NAIC's Solvency Modernization Initiative includes completion of the analysis of the US Solvency system compared to the EU Solvency II proposed system, upon final action by the EU

The first draft analysis comparing the current U.S. Solvency system to the proposed European Union's Solvency II system was released for comment at the Fall National Meeting, with a comment deadline of October 31, 2008. The Working Group will revise the current draft and will further develop that comparison as more information is received, including receipt of more details about Solvency II implementing measures. The Working Group will need to decide whether more detailed comparisons, such as comparing the detailed calculations of the capital requirements, should be made.

### **Identification of Ideas to Consider Including in Current NAIC programs**

The NAIC's Solvency Modernization Initiative includes identification areas for potential adoption in the U.S. solvency framework.

At present, because of involvement with the IAIS and initial studies of international solvency ideas, the following are areas that are included in the list of discussion items for the Working Group. This list of ideas would be expected to expand following studies of international solvency initiatives.

We also note that our goal here is not to decide "how" to get any of these implemented, but to identify ideas that merit consideration.

### **Economic Capital**

The RBC is designed as a minimum capital requirement and does not address any target or economic capital levels. The insurer's target economic capital is not required to be reported to the regulator.

The calculation of economic capital is obviously important and beneficial to a company, but it could be useful to its regulator as well. Regulators could gain information from the over-all answer, but also from the details included in the model that is built to derive economic capital. Regulators could learn more about the risks faced by a company and how those risks

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interact, how risks change from year to year, and resulting relative effects of specific future strategic moves. A company's target economic capital amount is an indicator to a regulator of how the company's management sees their business, including their level of conservative. Thus, a regulator could benefit by knowing both how a company calculates, interprets, and uses an economic capital amount, as well as what that amount is.

Regarding economic capital, regulators should consider the following:

- Do all companies currently determine a target economic capital level?
- Should there be more focus by regulators on the target economic capital compared to the carried capital?
- How significant are the differences in the methods used to calculate target economic capital? Would comparisons between companies be useful?
- Since economic capital is often based upon the insurer's own model and selected assumptions, the economic capital that is calculated could be over/under conservative. Would the value to regulators be in the number itself, in the annual change of that number, or in the discussion of the assumptions that change each year?
- Should the RBC be supplemented to require reporting of economic capital? Should that calculation be the company's own determination or a formulaic approach? If formulaic, would that same economic capital amount be used in prior approval ratemaking applications? As a starting point for regulatory evaluation of an insurer's internal economic capital model, regulators should consider a formulaic approach to modify the current RBC formula to represent a higher level of confidence.
- Regulators should also consider the advantage of aligning regulatory capital with economic capital, rather than merely extracting discrete aspects of other solvency regimes over current NAIC practice.
- Regulators should not require internal economic capital models, but should encourage them as a best practice.

### Tools in the Solvency System

While numerous tools will be utilized in a solvency system, two tools that are not fully utilized today are a company's enterprise risk management and internal models. Should the NAIC choose to use these tools, the NAIC will want to make sure there is not over-reliance on just one tool, that model risk is fully recognized, and that there are appropriate margins for uncertainties.

#### 1. Enterprise Risk Management

While the U.S. does not require companies to implement enterprise risk management (ERM) systems, it does require companies to analyze the risks they face. In addition, the revised Model Audit Rule provides the foundation of a sound ERM system by requiring documentation, testing and management's attestation regarding internal controls over financial reporting.

As a prerequisite to granting a license to do the business of insurance in a state, the applicant must show (among other things) that it is solvent and that its financial condition, method of operation, and manner of doing business are conducive to meeting its obligations to all policyholders. A state regulator should require evidence that an insurer is appropriately managing the risks it is accepting as a prerequisite for license renewal.

Insurers are required to file a supplement to the annual statement titled "Management's Discussion and Analysis". This supplement, while not a form of ERM, is primarily a narrative document setting forth information that enables regulators to enhance their understanding of the insurer's financial position. The discussion and analysis includes material events that would cause reported financial information to not be necessarily indicative of the future financial position. Specifically, risks such as the following are identified:

- A. Financial Position -- any material changes to an insurer's invested asset mix and quality distribution and the potential impact to liquidity, adequacy of the insurer's policy or loss reserve and any material changes between years, and any material trends in capital and surplus

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- B. Results of Operation – unusual or infrequent events/transactions, known trends with impact on revenues or income, explanations of material increases to revenues (including the introduction of new services or increases in the volume of services)
- C. Cash Flow and Liquidity – sources of cash flow and unused sources of liquid assets, demands or events that could result in cash flows changing in a material way, and material commitments to capital expenditures
- D. Forward-Looking Information – trends, demands, commitments, events that are likely to occur and could have a material impact upon the company are encouraged to be supplied.

Other documents and requirements provide information on risks faced by the insurer. The SEC filings and rating agency documents provide some analysis of prospective risk. The NAIC's property/casualty Statement of Actuarial Opinion includes specific comment to address the risk of material adverse deviation on loss reserves. The NAIC's enhanced risk-focused financial examination process includes the review of risk management practices employed by insurance companies. The examination provides a methodology for assessing residual risk in each activity and allows the assessment of risk management processes in addition to those that result in financial statement line item verifications, for example, the effectiveness of the board of directors and other corporate governance activities. While the risk-focused financial exam is not an audit of an insurer's ERM system, the methodology includes some assessment of the operations and quality of the risk management processes of the insurer. Numerous included elements allow for examinations that emphasize the analysis of an insurer's current and prospective solvency risk areas as well as the fair presentation of surplus.

The following are some of the IAIS standards regarding ERM:

- An insurer should establish and maintain a risk tolerance statement which sets out its overall quantitative and qualitative tolerance levels and defines tolerance limits for each relevant and material category of risk.
- An insurer should regularly perform its own risk and solvency assessment (ORSA) to assess the adequacy of its risk management and current and likely future solvency position.
- The ORSA should encompass all reasonably foreseeable and relevant material risks. The assessment should identify the relationship between risk management and the level and quality of financial resources needed and available.
- The supervisor should undertake reviews of an insurer's risk management processes and its financial condition. The supervisor should use its powers to require strengthening of the insurer's risk management, including solvency assessment and capital management processes, where necessary.

The NAIC should discuss the need for a company to have written risk management policies adopted by the Board as well as a common format for risk-focused financial reporting. A common format could improve the risk-focused surveillance process, could provide for an actual to expected analysis, and could be used for desired regulatory data collection at times of newly emerging or unusual risk events.

### 2. Use of Internal Models, Full and Partial Models

The U.S. RBC includes inputs from companies so that the resulting calculation is tailored by the company's own data; however the use of modeling to determine capital requirements is currently limited to the life insurance (C-3) interest/market risk capital requirements for variable annuities and group annuities with guarantees product designs. There are also trend tests within the RBC that do some evaluation of future risk.

Regulators should consider expansion of the use of full and partial internal models, including modeling for property/casualty catastrophe risk, and should evaluate the need for minimum floors on calculations.

Regulators should consider implementation of a prior approval system for models when a company uses the model to determine their regulatory capital requirements (RBC). The internal models must be subject to a rigorous and verifiable process and supported by sound risk management practices. The models also must be used by the company to make business

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decisions (“use test”). Experience with a model should be required and companies should perform an appropriate level of back-testing, recognizing that the model should be prospective and might logically differ from historical activity.

Regulators should also consider the extent of any impact to the minimum capital requirements from internal models, especially in consideration of the need to have a non-arguable required level of capital in the event of a final regulatory action.

In evaluating expansion of the use of internal models for regulatory capital purposes, regulators should consider the nature of the interface between management and regulator, the resource needs of both regulators and insurers, the potential complication of communication that might arise between and among these parties, and the potential for deceptive manipulation. The regulator’s role in evaluating and examining an internal model should be distinguished from the role of management in utilizing these models. Regulators should examine the effectiveness of the models in evaluating capital adequacy but should not dictate the specific model which should be used in the management of the company beyond what is needed to satisfy the “use test” described below.

The IAIS does not have a standard or principle whereby supervisors must allow the use of internal models to determine regulatory capital requirements, however, the IAIS encourages the use of internal models for solvency purposes, where appropriate. When solvency regimes allow internal models to be used to determine capital requirements, the following are some of the applicable IAIS standards:

- The supervisor should establish appropriate modeling criteria.
- The insurer should have adequate governance and internal controls in place in respect to the internal model.
- The model should be subject to prior approval by the supervisor (for this use). The onus should be placed on the insurer to demonstrate that the model is appropriate for regulatory capital purposes.
- The insurer must perform three tests, at a minimum: the 'statistical quality test' to demonstrate the appropriateness of this methodology, including the choice of model inputs and parameters, and to justify the assumptions underlying the model; the 'calibration test' to demonstrate that the modeling criteria established by the supervisor is met; and the 'use test' to show that the internal model, its methodologies, and its results are fully embedded into the risk strategy and operational processes of the insurer.
- The insurer must monitor the performance of its internal model and regularly review and validate the ongoing appropriateness of the model’s specifications. The insurer should ensure and be able to demonstrate that the model remains fit for purpose for regulatory capital purposes.

Many companies use internal models in areas other than for regulatory capital requirement purposes, such as for cash flow testing, pricing, fair value of liabilities calculation, economic capital calculation, and business planning. Regulators should be interested in how well a company understands its operations and is able to express that understanding in a model. Regulators should encourage companies to perform the related self study and to develop models. Use of models to justify requiring less capital should be approached with caution. Understanding a model’s strengths and weaknesses in representing a company’s actual condition requires significant review work, study of model risk, and back testing.

In recognition of many state insurance departments’ limited resources to appropriately evaluate internal models for the determination of capital requirements, the Working Group may request that the NAIC consider creating a nationwide office or developing a coordinated NAIC function which would evaluate internal models for insurance departments upon request. Consideration should be given to evaluating internal models within the regulatory risk-focused financial surveillance process.

### Regulatory Capital Requirements

Our current RBC has a ladder of supervisory intervention:

Company Action Level: 200%, or triggered by a Trend Test.

Regulatory Action Level: 150%

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Authorized Control Level: 100%

Mandatory Control Level: 70%

We need to recommend that the NAIC determine what our RBC intervention levels are in statistical terms, at what confidence level (or “specified level of safety”) and over what time horizon these are calculated. The next step would be analysis as to whether those are appropriate and whether there should be modifications to any calculations.

Because economic conditions are more volatile now (for both assets and liabilities) than they were decades ago, a company should hold more capital today to provide the same level of safety as then. It is also true that variations in individual company risk characteristics are wider now than in previous decades. Thus, capital requirements today need to be more company-specific, reflect the interdependence among assets, liabilities, regulatory capital requirements and capital resources, and ensure that risks are appropriately recognized. Individually designed company models are the best way to attain company-specific results. Their use, however, presents the problems (and benefits) described in the earlier section on internal models. Any set of standards associated with internal models must include items addressing both the company’s and the regulator’s competency with models and ability to interpret and understand their results.

With any potential modifications to the RBC formulas, consideration should be given to the proportion of company specific model-based information vs. industry average (formulaic), and level of detail necessary in the formula at each action or control level; there might be justification to have more company specific model-based detail in calculations at the higher action levels and a less sophisticated formulaic approach in the calculation at the lower control levels. In addition consideration should be given to the nature, scale, and complexity of the company’s corporate structure and underlying risks.

The NAIC should decide whether current (and non-uniform) state capital and surplus minimums are appropriate. The NAIC may wish to consider performing Quantitative Impact Studies on specific, viable proposals, analogous to those of Solvency II, to determine appropriate target parameters for RBC confidence levels.

The following are some of the IAIS standards regarding capital requirements:

- Regulatory capital requirements should be established at a level such that the amount of capital that an insurer is required to hold should be sufficient to ensure that, in adversity, an insurer’s obligations to policyholders will continue to be met as they fall due.
- The highest level of capital requirement – the prescribed capital requirement (PCR) -- should be defined such that assets will exceed technical provisions and other liabilities with a specified level of safety over a defined time horizon.
- The solvency regime should establish a minimum bound on the Minimum Capital Requirement (MCR) below which no insurer is regarded to be viable to operate effectively.
- The supervisor should set out appropriate target criteria for the calculation of regulatory capital requirements, which should underlie the calibration of a standardized approach.

### **Group Issues**

At present, we have the Holding Company Model Act that requires disclosure of pertinent information relating to changes in control of an insurer and disclosure by an insurer of material transactions and relationships between the insurer and its affiliates, including certain dividends to shareholders paid by the insurer. The act also provides standards governing material transactions between an insurer and its affiliates.

As of now, there are not any standards on group issues at the IAIS, but there are group principles, a guidance paper on the role and responsibilities of a group-wide supervisor, and a draft group issues paper. Plus, there is significant discussion about international cooperation and sharing of information (MOUs, MMOUs, supervisory colleges, etc.) and the assessment of group-wide capital. The IAIS work will need to be followed to select ideas for consideration at the NAIC.

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Any group operating in multiple commercial sectors and/or multiple jurisdictions comes under the scrutiny of multiple regulators. Experience has shown that the risk profile of an individual company within a group can be affected by relationships with affiliates, both regulated and unregulated. Experience has also shown the difficulty of efficiently and effectively regulating a group encompassing multiple sectors and multiple jurisdictions. Issues arising between regulators usually are related to coordination, cooperation, confidence and agreement on requisite standards. The confidence and agreement on standards issues may be fostered by the efforts of a central body (e.g., the NAIC within the US and the IAIS internationally) that has sufficient strength and influence to set minimum regulatory standards and also to require individual regulators to make their standards transparent. Such bodies can also facilitate prior agreement on coordination and cooperation issues by promoting discussions on “lead” regulator arrangements, etc.

The following are some specific areas for discussion about group supervision:

### 1. Group Supervision – Model Law

The NAIC should discuss whether to develop a model law that would coordinate state efforts to act as group supervisors. Such a model would allow states to meet the regulatory needs of their domestic insurers as they engage in international commerce by agreeing on a common framework of standards for laws and necessary resources.

### 2. Group Supervisory Colleges

The NAIC may wish to approach supervisors in the European Union and other jurisdictions in order to discuss the creation of permanent supervisory colleges for sharing information and perspectives regarding the solvency positions of large global insurance groups.

### 3. Non-Regulated and Federally Regulated Entities within a Group

The NAIC should consider how to determine the risk, especially the risk of contagion, which results from any non-regulated entity within a group. In addition, the NAIC may wish to approach the Federal Reserve Board and other federal banking and securities regulatory bodies to establish communication protocols for coordinating responses in crisis situations and for advising insurance regulators on complex financial instruments held by or insured by insurance groups.

### 4. Group Capital Requirements

The NAIC should discuss whether there should be group-wide supervision that includes group-wide capital requirements, separate from the summation of capital requirements for each individual entity. Discussion should include how to handle financial conglomerates and non-regulated entities.

For any proposed changes in group supervision, consideration should be given to the existing political and jurisdictional boundaries that demarcate sources of administrative and legal power, as well as the other jurisdictions’ capacity and competence to enforce solvency requirements. A principle for group supervision involves full knowledge of the regulation to be imposed on a group basis and assent of the regulated entity to the substance of the group supervision on the basis that it will have input.

Consideration should be given to streamlining the supervision of groups, preserving the authority of the domiciliary regulator, and not unjustly creating a new level of regulation on top of existing requirements. Regulators should consider that separate legal entities have been created and maintained by insurers for various, but specific and legitimate reasons. These legal boundary constraints should be preserved for the reasons they were established and for the protection they provide to policyholders.

## **Reinsurance**

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The Reinsurance (E) Task Force will continue with its Reinsurance Modernization work. This work is one of the most important NAIC projects currently in progress and should be implemented as soon as possible. Regulators should also consider modernizing risk transfer requirements applicable to life reinsurance.

### **Insurance Valuation**

The Principles-Based Reserving (EX) Working Group will continue with its principles-based reserving work. This work is one of the most important NAIC projects currently in progress and should be implemented as soon as possible. Consideration should be given to international convergence with the requirements for calculating and reporting reserves.

### **Corporate Governance**

Certain corporate governance requirements have been implemented via the Model Audit Rule and others are currently being considered within the principles-based reserving initiative. Thus far, these requirements have been targeted to specified products and business functions. The SMI should consider whether governance should be addressed and implemented for each individual function or product or whether a broader governance framework should be implemented for all products or functions. If broader governance is desired, the NAIC will need to consider the impact of governance requirements in the U.S. legal framework; how any requirements should be implemented, such as through a rule or regulation; how any requirements should be monitored, such as through the risk-focused surveillance process; and how they will be enforced such as through the Model Regulation to Define Standards and Commissioner's Authority for Companies Deemed to be in Hazardous Financial Condition (# 385).

### **Systemic Risk**

Regulators should consider a comprehensive and uniform way to address and report on systemic risk issues. This may be done through uniform risk reporting and/or some centralized or consolidated review process. The NAIC could assist in this process or individual states could support it. This would then be a platform for managing the feedback loop review process, assessing risks that may be missing or misrepresented in the reporting process, and allow dialogue with other US and/or international regulators about the aggregate risk exposures and possible concerns for the U.S. industry as a whole or in part. The process will be cognizant of developments in other fora.

### **Impact of Accounting Changes**

The Securities and Exchange Commission (SEC) has proposed a roadmap for the potential use of financial statements prepared in accordance with the International Accounting Standards Board's (IASB) International Financial Reporting Standards (IFRS) by U.S. issuers for purposes of their filings with the SEC. Any replacement of GAAP with IFRS will necessitate re-codification of SAP. The NAIC should expeditiously address international accounting issues.

While this document focuses on the non-accounting issues of the Solvency Modernization Initiative, it is recognized that any change in accounting would require modification to the solvency requirements. A total balance sheet approach would be adopted so that focus is placed on the appropriateness of the total of liabilities and capital, meaning that a change in accounting requirements that lowers the liability values contrary to a solvency perspective would result in higher regulatory capital requirements.

This would be consistent with the IAIS standard on the total balance-sheet requirement:

- A total balance sheet approach should be used in the assessment of solvency to recognize the interdependence between assets, liabilities, regulatory capital requirements and capital resources.

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Especially in light of the current financial turmoil, it is apparent that the convergence of accounting standards has never been more important. Accounting must not be restricted to a regional or national variation of rules since reporting variations add an additional layer of confusion to a stressed situation.

### **Implementation**

Items for consideration in the implementation phase include, but are not limited to, the following:

1. The amount of discretion, if any, for reporting, dialogue, and discussion between the company and the regulator.
2. The legal and regulatory process for making future changes and modifications. For example, must changes be approved by a legislator, a commissioner, group or commissioners, etc.? Is there a formalized review process that includes the regulator and companies to review what is working well and what needs improvement in the reporting process?
3. The feedback/governance process to review the impact of requirements on actual practices of reporting risk and designing product offerings.

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