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How Can We Keep it From Happening Again: The ERM-II Systemic Risk Workshop

By Louise Francis

ON MAY 11-12, 2010 IN ATLANTA, ERM-II (Enterprise Risk Management Institute International) sponsored the second workshop on Systemic Risk regulation. The first workshop was held in August, 2009, also in Atlanta. The National Association of Insurance Commissioners, the Joint Risk Management Section of the CAS, SOA and CIA, and the J. Mack Robinson College of Business at Georgia State University joined ERM-II as co-sponsors. Professor Shaun Wang and Wayne Fisher, executive director, ERM-II, served as co-chairs of the symposium.

A key objective of the workshop was to develop recommendations that could serve as input to regulators, legislators and other policy makers in designing and implementing systemic risk regulation that can prevent future financial crises. Participants came from a diversity of disciplines, such as academe, regulation and business. Most were from the insurance industry, though representatives of the banking industry participated as well.

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A number of different topics were covered including: the definition of systemic risk, the insurance industry as a cause of systemic risk, the exposure of insurers to systemic risk, cross-country approaches to regulation for systemic risk, and how banks and insurers manage their exposure to systemic risk. Below are summaries of certain presentations.

PRESENTATION BY SHAUN WANG

According to Shaun Wang, there is a crisis in our valuation system; that is, the systems we use to value assets and liabilities. Fiscal and monetary policies, as well as accounting regulations, have dramatic impacts on asset values and therefore on the economy. Wang suggested that business schools focus on maximizing stakeholder value rather than maximizing shareholder value. Some key questions arising from the crisis are:

- What risk management metrics are needed, and which should be disclosed?
- How to manage principal-agent incentives? Incentives should not reward managers for taking on excessive risk or provide compensation for incomplete transactions (where liability is not extinguished so the true profitability is unknown).
- How does one test and manage in a value-add framework? That is, how much value is added net of the additional risk that's assumed?
- A methodology is needed to identify emerging risks, and require a systemic evaluation of the potential impact on the firm.
- How do regulators deal with escalating risk taking in a competitive environment?

Shaun Wang noted that new approaches to systemic risk management are needed including new ways of measuring and developing information about risk. He proposed new measures of risk that would augment financial reporting. Already, the EU is developing regulations for managing risk and the NAIC has a solvency modernization initiative. Though Solvency II calls for internal models, Wang believes that this would not prevent financial crises as many companies already employed models. These models were subject to various pressures in selecting key assumptions (note that Lewis made it clear in **The Big Short** that rating agency models were manipulated both by the raters and their customers, resulting in higher than merited ratings).

Wang believes that management failures are the cause of every business failure. Therefore an effective risk index must measure management behavior, as well as capture other factors.

Wang asked "Why don't actuaries do a good job in estimating loss reserves?" He believes a key source of reserve inaccuracies is that actuaries do not adequately consider the underwriting cycle. Using a table from work by David Clark (see "How to Create a Market Cycle," *http://www.casact.org/research/wp/papers/working-paper-clark-2010-03.pdf)* Wang suggests a key factor in reserve loss development are relative rate changes. Wang suggested that regulators will require reporting on such risk indicators as rates (per exposure

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unit), employee turnover, and major organizations changes. Wang also suggests regulators will require a discussion of business models limitations. Wang recommended research on analyzing macro-economic trends and how they impact insurer's business models and work to develop risk indices for various market segments.

PRESENTATION BY DR. STEPHEN HIEMESTRA

Dr. Stephen Hiemestra, providing a federal regulatory perspective from the Federal Home Finance Agency, defined systemic risk as "the probability that a large number of firms, especially financial firms, could fail during a given time period." He fleshed these ideas out further in the Summer 2010 issue of *Risk Management.* He also noted that the "Too Big to Fail" corporations impose a systemic risk because their failure imposes a cost to society. Hiemestra noted that limited liability corporations are granted an option to "put" their losses to their creditors in the case of a bankruptcy, but a "too-big-to-fail" is given an option to put their losses to the taxpayer and yet still continue to function. Thus, there is an incentive to make riskier bets since they are in part made at the public expense. Hiemestra notes that campaign financing and lobbying tend to increase the value of this put and the share born by society. In addition, peddling for political influence tends to neutralize the efforts of anti-trust (and other) laws.

Hiemestra recommends adding risk management reporting requirements, including information about the accuracy of past model estimates, to financial disclosures. Hiemestra also believes that regulators should be required to intervene in "bubble markets." He also addresses the inadequacy of current approaches to address bubbles. For instance, hedges and diversification tend not to be effective risk management in bubbles.

PRESENTATION BY MARY WEISS

Professor Mary Weiss, who has spent a sabbatical working with the NAIC, did a presentation on Systemic Risk and the U.S. Insurance sector. Weiss defines systemic risk as "the risk of adverse consequences that

reverberate across a large segment of the financial sector as a whole, posing a potentially grave effect on the economy." Weiss's research addressed the question "Can the insurance industry pose a systemic risk?" Some manifestations of systemic risk in insurance are: a run on an insurance company, reinsurance, and the correlation of losses. Weiss examined whether the failure of one or more insurers could cause a wider financial failure. Because no insurer currently has a large enough share of the insurance market she believes the industry does not have TBTF companies and it is unlikely that insurance companies can precipitate a crisis. On the recipient side of systemic risk, insurance companies have significant investments in bonds, stocks and other securities that are affected by system wide crises.

In all, Weiss concluded that the insurance industry is unlikely to expose society at large to systemic risk although they could be adversely affected by financial crises. In her opinion, insurance companies deserve input into discussions and planning about systemic risk. . Weiss's paper, which describes her research and her findings can be downloaded from the NAIC website, www.naic.org.

PRESENTATION BY THOMAS FREEMAN

Thomas Freeman, CRO for SunTrust, defined systemic risk as "a risk that affects an entire market or system, to just specific participants" and addressed how compa-

CONTINUED ON PAGE 28

How Can We Keep it From Happening Again … | from Page 27

nies should manage exposure to systemic risk. Financial institutions need to implement a strategy to respond to systemic risk long before a systemic crisis occurs. "Taking early action to address systemic risk requires courageous leadership since it may run counter to the prevailing industry sentiment."

PRESENTATION BY ALLAN MENDELOWITZ

Allan Mendelowitz, former Chairman of the Federal Housing Finance Board was the lunch speaker. His topic was "Systemic Risk: How's that Working Out for you?" Mendelowitz illustrated that a simple plot of housing prices and household income over time provided a clear (and early) indication of the housing bubble and of an unsustainable trend. The post-bubble period has seen extremely high default rates where each vintage is worse than the preceding vintages. This is evidence of an extraordinary collapse of underwriting standards. Mendelowitz is an advocate for an Office of Financial Research (OFR) initiative. He believes the broad-based daily collection of data across the financial services industry is a key to the success of a systemic risk regulator. The OFR concept is for an independent agency charged with collecting aggregate level information suitable for analyses and stress scenario modeling and aggregation in order to support systemic risk monitoring and regulation. More information about the organization promoting the data gathering initiative can be found at *www.ce-nif.org.* Though the concept has been attacked in the *Wall Street Journal*, it is backed by some large organizations and some brokers, whose back office operations might benefit from such legislation.

PRESENTATION BY ALLAN BRENDER

Allan Brender, a Canadian regulator, discussed the kind of regulatory structure that he suggests can prevent catastrophic systemic crises. Using the Canadian regulatory system as an example, Bender described the features of a system that he feels worked. A key factor is a system that is principals rather than rules based. Such a system is harder to arbitrage by searching for technicalities that defeat the intent of the regulations. The Canadian system involves frequent on-site visits by the supervisor (including to foreign offices). Brender characterized the approach as "reliance based." Brender noted that Canada's banks weathered the financial crisis relatively well. Some life insurers, however, had to increase liability estimates significantly, causing a re-examination of internal models of VA products. ■

Further information
Presentations can be downloaded from: *http://www.ermii.org/News/SystemicRisksmeeting2010.html.*