AMERICAN ACADEMY *of* ACTUARIES

Testimony Concerning Regulation of Systemic Risk in the Financial Services Industry

Submitted for the Record
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U.S. House Subcommittee on Capital Markets, Insurance, and Government Sponsored Enterprises

March 5, 2009

Chairman Kanjorski, Ranking Member Garrett, and distinguished Members of the Subcommittee:

The Risk Management & Financial Reporting Council of the American Academy of Actuaries[1] appreciates the opportunity to provide its perspective on how to better "prevent private sector activities from putting at risk the stability of the U.S. economy." The time has come for a financial regulator focused on systemic risk. We support the establishment of a governmental systemic risk regulator that can effectively provide oversight of financial risks and protection to the public providing that it incorporates the following principles and concepts.

Systemic risk is an issue within the insurance industry. Some of the systemic risks to insurance systems are regulated by limitations on leverage. Regulatory controls include a combination of external structures (government-sponsored guarantee funds and catastrophe pools) and internal requirements (regulatory audits, actuarial opinions subject to standards of practice, solvency metrics, asset allocation, loss reserve and minimum capital requirements). We think there are valuable "lessons learned" from insurance regulation that can inform the debate over creation of a systemic risk regulator.

The viability of the insurance sector rests on the perception that insurers can and will meet their promises. While there are many complexities of insurance and financial risk, there is a straightforward process for regulating those risks. It begins with understanding and defining risks, measuring those risks over time, and linking the possible measurement outcomes to effective actions. Actuaries are key players in this process, because of the extensive experience the profession has in dealing with risk management and solvency issues involving public and private insurance systems within the financial services industry.

[1] The American Academy of Actuaries is a 16,000-member professional association whose mission is to serve the public on behalf of the U.S. actuarial profession. The Academy assists public policymakers on all levels by providing leadership, objective expertise, and actuarial advice on risk and financial security issues. The Academy also sets qualification, practice, and professionalism standards for actuaries in the United States.

We have witnessed unparalleled new threats to our financial security as is highlighted by American International Group (AIG) and its unregulated and uncontrolled venture into Credit Default Swaps (CDS). Since these financial guarantees were made outside of AIG's insurance subsidiaries, they reportedly escaped insurance regulatory oversight. Our Risk Management and Solvency Committee recently submitted testimony to the National Council of Insurance Legislators on the subject of CDS that is attached for your information. The concepts expressed there should be useful in developing a regulatory structure for CDS as well as other financial products with insurance-like features.

To illustrate an example relevant to today's financial crisis, we note that in 1990 Congress amended The National Housing Act of 1934 to require the Secretary of Housing & Urban Development to conduct an annual independent actuarial study and analysis of the Mutual Mortgage Insurance fund and to report annually to Congress on the financial status of the fund. This fund had assets of over $25 billion at the end of Fiscal Year 2007 and currently insures over $400 billion in FHA residential mortgage loans. The recent Fiscal Year 2008 actuarial report indicates that the Mutual Mortgage Insurance Fund will continue to exceed the mandated minimum capital ratio and is not forecasting the kind of bailout needed to support other guarantees of residential mortgages.

In summary, actuarial solvency and risk concepts will be useful in approaching how to structure the role of the Systemic Risk Regulator. We would welcome the opportunity to discuss with the committee the key concepts and elements that we believe are needed for the effective oversight and monitoring of systemic risk.

Signed by,

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Risk Management and Solvency Committee of the American Academy of Actuaries[1]
Testimony to NCOIL – January 24, 2009

Actuarial Principles, Risk Management Principles, and Insurance Principles for the Solvency & Risk Management of Credit Default Swaps (CDS) - Why and How?

Actuaries recognize that there are acute public policy issues around the financial security provided by the CDS market and there is a need for oversight of the accumulation of risk by the individual counterparties who are providing financial protection. It is our experience that these issues are similar to the risk protection provided by insurance in terms of specific capital requirements needed to back-up the contract's promise to pay when the covered event, default, occurs.

We are not advocating what authorities or entities necessarily need to regulate the CDS market. However, we do not see how a future CDS market can be expected to avoid collapse in a credit crisis without some form of effective solvency requirements and risk management oversight. The example provided by insurance regulation, with its capital requirements, solvency regulation and legislated authority in the event of insolvency is certainly one that has much to recommend as a sound basis for any financial security system that is designed to protect the public.

I. Challenge of CDS and Fitting Risk to Appropriate Oversight & Regulation
The failure of entities in the CDS market to provide sufficient backing for their guarantees demonstrates that increased awareness is needed from market participants and regulators about the implications of the following crucial distinction:

> When does the market function as a price discovery mechanism versus when does the market provide price guarantees for which specific financial backing, in terms of capital and risk management, is needed to minimize failures from systemic risk issues?

We think this important distinction will help improve the dialogue on solutions beyond the traditional concern of debating whether something is insurance or a financial product. The following discussion in this section focuses on many of the characteristics and similarities that can be seen in the CDS and insurance markets as well as the diverse "labels" that have been applied:

a. CDS exhibit certain risk characteristics that are similar, with respect to counterparty solvency risk, to what we observe in certain insurance and financial guarantee products. Typically, CDS represent a product that more closely resembles *forward agreements* rather than *futures instruments*:
   - Over the counter, not exchange transactions
   - Heterogeneous, not homogeneous contract terms
   - Illiquid rather than liquid markets

b. Addressing the solvency issues for the CDS market could be accomplished in a number of ways, but it seems clear that the current oversight of the CDS market has failed to provide an acceptable level of financial security to the public. The insurance regulatory model has many characteristics around

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protecting the solvency of the market that could provide an excellent starting point for effective oversight of the CDS market.

By analogy, insurance carriers (insurance risk "Intermediaries") assume and cede financial instruments that behave like illiquid, heterogeneous put contracts. Since Swaps exhibit similar risk characteristics, Swap Dealers (SWAP intermediaries) create, in effect, similar solvency obligations to the Swap participant (the "public"). This is of increased importance in the Swap Markets since Swap Dealers, rather than Swap Brokers, predominate in the Swap distribution system.

c. A typical dictionary definition for insurance states a definition as "coverage by contract whereby one party undertakes to indemnify or guarantee another against loss by a specified contingency or peril". While under commonly understood usage, this may mean that all insurance contracts meet this definition, it does not mean that all contracts meeting this definition are considered contracts of insurance especially since we recognize that meeting a generally understood definition of insurance is not meant to take precedence over a legal definition. Legally, statutes have been drafted to define insurance for the purposes of the specific regulation. However, state statutes have also addressed other products which are often considered financial in nature (such as private mortgage insurance, financial guarantee insurance, and long durational contracts such as home warranty and automobile warranty) and have indicated that they should be regulated based on the same principles as have been applied to insurance.

d. Pricing for loan defaults and credit downgrades often uses similar approaches to those used for pricing of insurance products. The "actuarial method" is a common methodology for evaluating credit risk, based on a frequency/severity method, i.e., the probability of default multiplied by the loss given default. Actuaries have commonly used such methods to evaluate pricing and reserving for private mortgage insurance, financial guarantees, warranties and long duration contracts.

II. Risk Requirements for a Sound Market – There is a long history of actuarial and risk management expertise in the development of methodologies to address the solvency needs for a market of contracts with significant solvency risk characteristics. Some examples include:

a. An actuarial methodology based on identifying and quantifying the amount to mature an obligation plus a risk charge for the guarantee.
b. Recent advances include the application of Conditional Tail Expectation (CTE) combined with scenario testing to estimate the impact of potential unknown and uncertain risks. This approach enables an understanding as to what could happen, how it will impact the organization and how the organization may need to limit risk given a better understanding of those risks. Basel II and IAIS (banking and insurance regulators) are beginning to advocate such approaches. These approaches may provide a better understanding of the CDS risks by providing greater detailed quantification affecting solvency requirements.
c. Stress/sensitivity testing of the assumptions affecting capital adequacy as part of appropriate actuarial, risk management and insurance regulatory practices.
d. Product design should also be included as a risk management approach for CDS. Just as options have moved to established exchanges to minimize counterparty risk, CDS may also require future product design changes.
e. The Asset Valuation Reserve (AVR) concept, developed almost 30 years ago, is an insurance regulatory requirement that establishes provisions for the credit risk associated with an insurer's invested assets.

IV. Additional discussion item - Identifying when a market of financial products needs a financial backstop to protect the public in the event of an extensive market collapse, and determining whether a solvency framework, similar to what exists for the insurance market, provides a model to achieve effective protection for the public.

CDS pricing assumes no arbitrage opportunities and therefore assumes that market pricing reflects current market conditions. For financial soundness, however, the issue seems to be whether CDS intermediaries should come under a solvency framework that combines current mark-to-market transparency with longer term security, including technical elements such as contingency reserves and risk-based capital requirements. With a CDS market dominated by Swap intermediaries (dealers), public policy concerns would suggest the identification of sound solvency frameworks for those intermediaries. Public confidence in the insurance industry has been achieved through the interaction among legislators, regulators, insurer management, underwriters, accountants, actuaries, etc. Similar approaches could be developed to advance the financial soundness of CDS intermediaries.

Summary

A market that takes on the risk of backing a credit default via CDS will need to apply solvency and risk management principles if there is a need to provide a measure of security to those who depend on such a market to perform adequately. These principles are well established for the insurance industry and could serve as a model for the CDS market. Actuaries have been involved for many years in recommending and developing sound solvency requirements, particularly for insurance markets, to ensure that adequate capital is required and that sound underwriting, system design and risk management requirements are in place. Should you wish more information on any of these concepts as you move forward, please feel free to call upon the Risk Management and Solvency Committee of the American Academy of Actuaries.