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**U.S. Senate Committee on Banking, Housing, and Urban Affairs  
Subcommittee on  
Financial Institutions and Consumer Protection**

**Hearing on  
Finding the Right Capital Regulation for Insurers**

**Submitted Testimony of  
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The American Academy of Actuaries is an 18,000-member professional association whose mission is to serve the public and 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.

Chairman Brown, Ranking Member Toomey, and distinguished members of the committee, on behalf of the American Academy of Actuaries, I appreciate the opportunity to provide you with the following written testimony to inform your hearing on “Finding the Right Capital Regulations for Insurers.”

Central to the work of actuaries is the evaluation of risk, primarily in the context of financial security programs such as those offered by insurance organizations. Members of the American Academy of Actuaries have worked closely for decades with insurance and other financial service regulators in developing various prudential regulations including solvency measures such as required capital. With this wealth of knowledge as background, we offer the following views on developing required capital for insurers. This testimony is intended to speak only to the matter of capital requirements in place under state laws and how the current risk-based capital (RBC) system works.

### **Overview**

- Capital requirements should protect an insurer’s ability to fulfill its obligations to its policyholders against losses incurred from its exposure to material risks ranging from investment losses to high levels of claims.
- Minimum capital requirements define the minimum amount of funds an insurer should have to safely discharge the obligations of the insurance company.
- The calculation of capital requirements should measure an insurer’s exposure to material risks and allow the regulator to identify weakly capitalized insurers. The level of required capital should distinguish the risks of one insurer from another.
- The level of capital held should pre-fund risks according to the statistical confidence over a defined time period defined by the prudent regulator (e.g., pre-fund risks expected to materialize over a 10-year time horizon with a 95 percent probability).
- On their own, capital requirements cannot be expected to fully cover all risks. Capital funds are not the only or best way to address every company risk, and the impact of some risks is difficult to measure credibly and pre-fund. Other regulations and company practices often augment capital requirements and could do a better job in mitigating certain risks (e.g., liquidity vehicles, reserve requirements).
- The capital requirements for insurers must be defined within the broader context of regulating an insurer’s solvency position, including conservative accounting and valuation standards, financial examinations, regulatory approval of certain transactions, and required disclosures regarding an insurer’s financial position.
- Insurance companies may choose to, and generally do, hold capital in excess of regulatory requirements.
- Further, the capital requirements for insurers must be established in recognition of the nature of the business of insurance as distinct from other financial services. The business models for insurance companies and other financial institutions are very different in terms of the needs of the consumers, the nature of the risks transferred, and the timing and certainty of generating profits. Banks and insurance companies operate under different accounting regulations and regulatory systems.

- While the calculation of risks and the associated capital requirements can be very sophisticated and complex, capital regulations are only effective if coordinated with available supervisory resources. If there are not sufficient regulatory resources available to facilitate a complex framework, then the benefits of a more sophisticated approach will be minimized and the capital regulation less effective.
- There are, of course, economic factors that require a balanced focus. Attempting to ensure insurer solvency can result in conservatively high requirements if overly stringent capital requirements are imposed. This in turn could damage policyholder interests in the long term by impeding competition and potentially creating affordability and accessibility problems. For instance, in health care, when carriers have to meet high standards, especially those based on health care costs, they have to meet surplus requirements through profits or other means. This could cause some carriers that do not have access to capital markets (e.g., not-for-profit companies) to be unable to compete. Many carriers could attempt to meet increased surplus requirements by raising premiums. In the case of health insurers, the federal medical loss ratio rebate formula requires premium rebates if profits are too high and, therefore, may make increased solvency requirements difficult or impossible to meet in the short term.

### **Development of Risk-based Capital Regulation**

The National Association of Insurance Commissioners' (NAIC) Risk-Based Capital (RBC) system for property/casualty, life, and health insurers was developed in the early 1990s. From the beginning, actuaries were involved in designing the methodologies needed to put into place a uniform system for regulators and insurance company management to assess the risks and act appropriately in the case of inadequately capitalized insurers. The main purpose of this system was and is to define a minimum capital level used as an early warning tool to identify weakly capitalized companies and to establish solvency levels that trigger regulatory actions. The RBC formula, in conjunction with the rest of the solvency regulatory structure, has likely served an important role in limiting the number and financial costs of insolvencies in the insurance industry.

The objectives, as generally accepted, for the RBC system during its development were as follows: create a relatively simple formulaic structure that would identify potentially weakly capitalized companies; design a formula that would be applied to all companies based on publicly available information; provide a regulatory tool that requires more extensive review of an individual company's risks and capital (including proprietary models and other detailed analysis) for those companies that were likely to be, or are, weakly capitalized to determine if corrective actions are needed; and establish an objective standard for triggering regulatory action, including the authority to take over a company under certain conditions, such as falling below a certain capital level.

In the years since RBC has been in place, other benefits have been observed, including, in some cases, motivating insurers to avoid undesirable levels of risk (from a policyholder perspective) and promoting a risk measurement and management culture within a company. Most insurers look to establish a level of capital to achieve or maintain their desired credit rating in addition to satisfying regulatory minimums and

internal company standards. A company will use certain metrics to establish a target for the level of capital held. Considerations in establishing such metrics include: 1) ease of access to external capital; 2) organic growth needs; 3) mergers and acquisitions plans; 4) parental guarantees; 5) support of affiliated insurers; 6) capital investment needs; 7) return on capital profit targets; 8) availability of funds from parent or affiliates; 9) perceived volatility in reserves or operating results; and others

The three RBC formulas (i.e., P/C, life, health) are different according to the nature of the inherent risks brought on by particular insurance products sold by insurers as well as the business models unique to each of the insurances types. In other words, the formula is used to capture the material risks that are common for the particular insurance type. For example, interest rate risk is included in the life RBC formula because for life insurers, there is material risk of losses due to changes in interest rate levels for many of the life insurance products they sell.

Risks included in the RBC formulas include:<sup>1</sup> Asset Risk – Affiliates; Asset Risk-Other (including credit risk, interest rate risk, and market risk); Underwriting Risk or Insurance Risk; and Business Risk.<sup>2</sup>

By estimating the risks faced by an insurer, company management and regulators are able to see how its risk profile measures up to the minimum required capital. In more technical terms, they are comparing the insurer's *Total Adjusted Capital* to its *Authorized Control Level*. The outcome of this leads to one of the five following actions.

- Take no action: Total Adjusted Capital of 200 percent or more of Authorized Control Level (ACL) results in “no action.”
- Company Action Level (200 percent of ACL)
- Regulatory Action Level (150 percent of ACL)
- Authorized Control Level (100 percent of ACL)
- Mandatory Control Level (70 percent of ACL)

Throughout the 20-plus years that the RBC system has been in place in the U.S., the factors underlying each of the formulas have been examined by the NAIC, and many have been adjusted to reflect evolving product designs, evolving knowledge of risks themselves, risks that were missing from the formulas, and consideration of the appropriate impact of the correlation of risks. In recent years, there have been innovations in the life formula on a more principle-based approach to determining capital through modelling that tailor the risk-based capital to the specific risks to which a company is exposed. The P/C formula has been under scrutiny because it does not include natural catastrophe risk, and discussions are ongoing to bring that risk into the formula. The health formula is currently being reviewed in light of potential risks from the difficulty in estimating risk adjustment receivables or

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<sup>1</sup> For more complete information on risk factors broken out by insurer type, see Appendix.

<sup>2</sup> Operational risks are also inherent in several aspects of RBC and statutory accounting.

payables, reinsurance receivables from the transitional reinsurance program, and receivables and payables from the risk corridor program by issuer.

When looking at capital regulation considerations in the U.S., it is instructive to look at other available tools, such as those coming out of new solvency regimes, some of which are occurring internationally, and which are also taking root in the U.S. These solvency guideposts can provide more information on insurer risk. While RBC defines the minimum requirements using a simplified measurement of an insurer's risks, risk-focused regulatory examinations and own-risk and solvency assessment (ORSA) filings provide additional information to the regulator on an insurer's unique risk profile.

These mechanisms fill out a range of tools that U.S. regulators have available to them to gain further information on individual and group insurers' overall risk positions. Actuaries are working on these and other ways to provide solutions in these areas of emergent public policy. The American Academy of Actuaries commits to be of service to you in your exploration of regulation of insurer capital. Thank you for your interest and consideration of these remarks.

## Appendix

Each of the three NAIC RBC formulas includes a covariance calculation of their respective risk factors, identified by unique codes as identified below. Covariance is a process of taking into account interdependence of the risks and of combining risk charges into one:

**Life** risk-based capital formula includes:

- C0 – Asset Risk – Affiliates;
- C1 – Asset Risk – Other;
- C2 – Insurance Risk;
- C3 – Interest Rate Risk, Health Credit Risk, and Market Risk;
- C4 – Business Risk.

**Property/Casualty** risk-based capital formula includes:

- R0 – Asset Risk – Subsidiary Insurance Companies;
- R1 – Asset Risk – Fixed Income;
- R2 – Asset Risk – Equity;
- R3 – Asset Risk – Credit;
- R4 – Underwriting Risk – Reserves;
- R5 – Underwriting Risk – Net Written Premium;
- R6 – Catastrophe Risk – Earthquakes (not yet adopted by the NAIC);
- R7 – Catastrophe Risk – Hurricanes (not yet adopted by the NAIC).

**Health** risk-based capital formula includes:

- H0 – Asset Risk – Affiliates;
- H1 – Asset Risk – Other;
- H2 – Underwriting Risk;
- H3 – Credit Risk;
- H4 – Business Risk.

Each of the broad categories of risk charges identified above includes a number of specific risk factors that can affect the solvency of an insurance company.

The existence of three separate formulas reflects some fundamental differences in the way life, health, and property/casualty insurance companies operate and the risks to which they are exposed.