

The Implications of Solvency II for U.S. Insurance Regulation

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Agenda

- Solvency II
- The U.S. system
- Comparing Solvency II and the U.S. System
- Lessons Learned from the Current Turmoil
- Where Do We Go From Here?

Solvency II

- Three Pillars
 - Pillar I: Quantitative Requirements
 - Pillar II: Supervisory Review
 - Pillar III: Supervisory Reporting and Public Disclosure
- Group Supervision

Pillar 1

- Elements
 - Calculation of technical provisions – market-
 - Market consistent (IFRS consistent)
 - Capital requirements
 - Investment management
- Two Capital requirements – “Ladder of intervention”
 - Solvency Capital Requirements (99.5% VaR”)
 - Standard formula, full internal models, partial internal models
 - Minimum Capital Requirement
 - ??? – not yet defined

Standard Formula

- Not yet specified, but intended to be a conservative approximation of the 99.5% VaR objective
- Standard Formula tested in QIS 4 included:
 - Market risk (interest rate, equity, spread, currency, etc.)
 - Counterparty default risk related to risk mitigation devices and receivables from intermediaries
 - Life risk (mortality, longevity, lapse, disability, etc.)
 - Non-life risk
 - Health insurance risk
 - Operational risk
 - Adjustment for deferred taxes
- Combined using correlation assumptions
- Risk mitigation will be recognized, but how is not yet clear

Internal Models

- Encouraged
 - Expected to produce a better alignment between firm risk and capital requirements and stronger risk management culture in the firm.
 - Firms using internal models are expected to see a reduction in required capital relative to the standard formula.
- Must obtain the supervisor's permission
 - Use test, statistical quality standards, calibration standards, validation standards, and documentation standards.

Investment Management

- Market-consistent valuation of assets plus Solvency II capital requirements are expected to account for all quantifiable risks
- A prudent person standard will apply for insurer investments
- ⇒ Eliminate quantitative investment limits and asset eligibility criteria
- ⇒ May reintroduce investment restrictions if new risks emerge.

Pillar 2

- Qualitative aspects of supervision
 - Adequacy of a company's internal controls, risk management processes, and corporate governance
 - Supervisors may impose higher capital requirements
- Own Risk and Solvency Assessment (ORSA)
 - Internal assessment of overall solvency needs given the firm's specific risk profiles
 - Two objectives
 - Tool for firm's own decision-making
 - Tool for supervisors to better understand the risk profile of the firm.

Other Aspects

- Pillar 3: Supervisory Reporting and Public Disclosure
- Group Supervision
 - Solvency II Directive Proposal would introduce a new system for supervising groups
 - Group supervisor would have concrete coordination and decision powers, primary responsibility for all key aspects of group supervision.
 - Diversification benefit in the calculation of the group capital requirement
 - Diversification benefit continues to be under discussion

NAIC RBC

- Standard formulae
 - Factor-based models developed in the mid-1990s.
 - Separate models for life, health, and property-casualty
 - Simple correlation assumptions
- Four control levels – “Ladder of intervention”
 - Company action level to mandatory regulatory control level

Internal Models

- Incremental and targeted
 - RBC C-3 Phase 1: interest rate risk for fixed annuities – December 2000
 - RBC C-3 Phase 2: variable annuities – December 2005
 - Work underway to develop RBC C-3 Phase 3 (life products)
- Internal models in reserves
 - Principles-based reserving

Features of the U.S. system

- Incremental and targeted use of internal models
- Safeguards when using internal models
 - Standard deterministic scenarios
 - Intended to ensure that requirements are not unreasonably low.
- Countercyclicality in certain aspects of financial reporting
 - Asset valuation reserve

Supervisory Action (Pillar 2)

- On-site examinations, off-site financial analysis, cash flow testing by life insurers, independents audits
- NAIC Hazardous Financial Condition Model
Regulation provides regulatory authority to address risky behaviors and characteristics exhibited by insurers
 - regulators may intervene and/or require additional capital
- Enhanced risk-focused examination approach required effective 2010 – more focus on prospective risks, risk management, corporate governance
- Risk-focused surveillance framework – adopted in 2004.

Multistate coordination

- Multistate coordination and oversight, both bilaterally and through NAIC
- Financial reporting/databases
- Centralized examination and analysis tools
- Financial Analysis Division, Financial Analysis Working Group
- Lead state framework

Regulatory and Public Disclosure (Pillar 3)

- SEC filings
 - Quarterly GAAP statements, risk disclosures, MD&A
- NAIC financial statements
 - Centralized database, benchmarking, peer group comparisons

Solvency II vs. the U.S. system

- U.S. use of internal models is incremental and controlled. Solvency II is comprehensive.
- In EU, supervisors review internal models before granting permission. In U.S., regulators largely rely on actuarial certifications, but have discussed creating a central review office and statistical agent.
- Solvency II is based on a 99.5% VaR metric; U.S. RBC standard model is not calibrated; internal models are generally calibrated to a TVaR metric. Standard model uses simplified correlation assumptions.
- In the U.S., the use of internal models is typically mandated if the insurer has the relevant risks and tends to increase capital requirements; in Solvency II, internal models are encouraged, but generally not required, and tend to reduce capital requirements.

Solvency II vs. the U.S. System

- There are some differences in the risks captured.
 - Solvency II includes catastrophe risk for both life and non-life insurance and a charge for operational risk; U.S. regulators are developing a charge for non-life catastrophe risk, but the others are not explicitly addressed by capital charges.
- Solvency II uses a market-consistent approach to calculating technical reserves. The U.S. PBR uses a different approach. (Conditional Tail Expectation of the greatest present value of deficit)
- Solvency II is relaxing investment restrictions; U.S. regulators maintain investment restrictions
- Solvency II includes ORSA; the U.S. system has no similar filing requirements, although much of the information is expected to be collected by the enhanced risk-focused examination process.

Lessons from the Current Turmoil

- Much of the recent work in supervision reflects a movement from rules-based to principles-based supervision
 - Rules-based approaches to solvency regulation were viewed as inferior
- Three assumptions were made in this movement
 1. Companies have an incentive to manage risk
 2. Regulators can distinguish between those companies that manage risk effectively and those that don't
 3. Regulators will take action when they identify a company that is not effectively manage its risk.

Company Incentive to Manage Risk

- Erosion of market discipline from existence of guaranty funds and deposit insurance
- Management incentives
 - executive compensation encouraged risk-taking
- Recent government actions may have expanded the concept of “too big to fail.”

Regulator Ability to Identify Firms with Risky Behaviors

- Increase in reliance on internal models to assess risk
- Challenges using models
 - Complexity of risk vs. model structure
 - Use of discretion (by companies/by regulators is inherent)
 - Regulatory expertise
 - New forms of regulatory arbitrage
- The theory was great; the empirical evidence contradicts it.

Important Comment

- A good risk management program must include use of internal models.
- But . . . Because a firm uses internal models does not mean it has good risk management
- There is a big difference between “It is good for firms to use models to understand their risk” to “It is good for regulators to base capital requirements on internal models”

Lessons

- Controlled use of internal models
 - Should there be a floor?
 - See the discussion over the use of the leverage ratio in banking capital requirements
- Importance of other aspects (especially Pillar 2)
 - Watching for red flags

The Effectiveness of Regulatory Action

- Regulatory forbearance/regulatory capture
- Checks and balances
 - The U.S. insurance regulatory system

Implications

- Checks and balances
- A combination of a principles-based and a rules-based system
- The importance of other supervisory tools

Issues

- Should the NAIC expand its use of internal models beyond current efforts?
 - Selected life risks
 - Non-life catastrophe charges
- Should the NAIC calibrate its RBC system to a particular level of safety (e.g., TVaR)?
- Should the U.S. RBC system include a charge for operational risk?
- Should the NAIC require companies to calculate economic capital and file it with their regulator? Should the regulator target a particular level of safety? Should companies file an ORSA?
- Should the NAIC have a central process for reviewing models and a process and/or a stat agent for model-related data.

Questions??