AMERICAN ACADEMY *of* ACTUARIES

Consistency Work Group
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Robert DiRico, A.S.A., M.A.A.A., Chair of the Consistency Work Group

Phillip Barlow, F.S.A., M.A.A.A.
Tom Campbell, F.S.A., M.A.A.A.
Donna Claire, F.S.A., M.A.A.A.
Mike Davlin, A.S.A., M.A.A.A.
Jim Lamson, F.S.A., M.A.A.A.
John Morris, F.S.A., M.A.A.A.
Dave Neve, F.S.A., M.A.A.A.
Bill Wilton, F.S.A., M.A.A.A.

The Work Group would also like to recognize the following individual for their valuable input: Bill Weller.

The attached documents represent the work of the Consistency Work Group (CWG) of the American Academy of Actuaries (Academy). This document is the summation of several different, yet related work efforts of the CWG. The sections of this document should be viewed in their entirety and together provide a more complete view of what is meant by and involved in a Principles-Based Approach (PBA) for Life, Annuity and Health Insurance.

This document is comprised of three sections:

I. A statement of the Conceptual Framework of a PBA for Life, Annuity and Health Products – this section is intended to clarify what is meant by a PBA.
II. A statement of the purpose of reserves and Risk-Based Capital (RBC) under a PBA (for Life and Annuity Products)
III. A statement of the risks reflected in reserves under a PBA (for Life and Annuity Products) – this section builds off of the prior section and provides specificity regarding the risk found in reserves versus capital.

I. Conceptual Framework of a Principles-Based Approach for Life, Annuity and Health Products

September 5, 2007

Purpose: This section is intended to provide guidance, on a consistent basis, to the Academy work groups that are involved in developing Principles-Based Approach recommendations for statutory minimum policy/contract reserves and Risk-Based Capital for Life, Health and Annuity products. This section is not intended to apply to Casualty insurance products, such as Fire, Home and Auto Insurance or to the work of the Casualty Practice Council as some of the statements in this document may be in direct conflict with approaches used to set reserves and capital requirements for those products.

A **Principles-Based Approach** of statutory Risk-Based Capital and minimum contract/policy reserve requirements for Life, Health and Annuity products incorporates the following common statements when considered together and not in isolation from one another. Further, these statements should be interpreted in the context of the value being calculated (i.e., reserve or RBC component)

1. Captures the benefits and guarantees associated with the contracts and their identifiable, quantifiable and material risks, including the 'tail risk' associated with the contracts, and the funding of those risks.

2. Utilizes risk analysis and risk management techniques to quantify the risks and is guided by the evolving practice and expanding knowledge in the measurement and management of risk. This may include, to the extent required by an appropriate assessment of the underlying risks, stochastic models or other means of analysis that properly reflect the risks of the underlying contracts.

3. Incorporates assumptions, risk analysis methods and models and management techniques that are consistent with, those utilized within the company's overall risk assessment process. The inclusion of the risk analysis methods and models should consider the original purpose of that analysis. Risk and risk factors explicitly or implicitly included in the company's risk assessment and evaluation processes will be included in the risk analysis and cash flow models used in the PBA. Examples of company risk assessment processes may include economic valuations, internal capital allocation models, experience analysis, asset adequacy testing, GAAP valuation and pricing.

4. Utilizes company experience, based on the availability of relevant company data and its degree of credibility, to establish assumptions for risks over which the company has some degree of control or influence.

5. Incorporates assumptions that, when viewed in the aggregate, reflect an appropriate level of conservatism and, together with the methods utilized, recognize the solvency objective of statutory reporting.

6. Reflects risks and risk factors in the calculation of the PBA minimum statutory reserves and statutory RBC that may be different from one another and may change over time as products and risk measurement techniques evolve, both in a general sense and within the company's risk management processes.

II. On the Purpose of Reserves and Risk-based Capital under a Principles-Based Approach

April 30, 2007

Purpose: This section has been created to provide guidance to the American Academy of Actuaries' Life and Annuity work groups as they develop Principles-Based Approach (PBA) recommendations to regulators for reserves and Risk-Based Capital (RBC) regulatory reporting. It is intended to add clarity to the current statutory framework requirements as future recommendations are being developed.

1. Existing Guidance for the Current Statutory Framework

- Statutory Accounting Principles, Statement of Concepts, 9/20/94 (restated in each Accounting Practices and Procedures Manual since)
  - 'The ultimate objective of solvency regulation is to ensure that policyholder, contract holder and other legal obligations are met when they come due and that companies maintain capital and surplus at all times and in such forms as required by statute to provide an adequate margin of safety.'
  - 'An accounting model based on the concepts of conservatism, consistency and recognition is essential to useful statutory financial reporting'
  - 'In order to provide a margin of protection for policyholders, the concept of conservatism should be followed when developing estimates as well as establishing accounting principles for statutory reporting'
  - 'Statutory accounting should be reasonably conservative over the span of economic cycles and in recognition of the primary responsibility to regulate for financial solvency'
- NAIC Risk-Based Capital Instructions - Risk-Based Capital is a method of measuring the minimum amount of capital appropriate for an insurance company to support its overall business operations in consideration of its size and risk profile. It provides an elastic means of setting the capital requirement in which the degree of risk taken by the insurer is the primary determinant.
- The current statutory framework prescribes accounting procedures for both assets and liabilities, including policy reserves. Under a PBA, new methods for determining minimum reserves and RBC will replace the formulaic methods and prescribed assumptions with a PBA. However, other aspects of the current statutory framework such as book value accounting and the degree of desired conservatism are assumed to remain unchanged for purposes of this document.

2. Reserves

- Under a PBA within the current statutory framework, the purpose of policy or contract reserves is to make provision for future anticipated costs of benefits and guarantees, arising from the contracts as they fall due.
- In understanding the statement above, the SVL2 Committee believes:
  - The 'provision for future anticipated costs of benefits and guarantees, arising from the contracts as they fall due' should recognize the asset cash flows, expenses (excluding income taxes), future premiums and other revenues associated with the contracts.
  - Cash flow items included in the reserve calculation may be aggregated as permitted by applicable requirements.
  - The economic value or cash amount of items related to the contracts, such as commissions or revenue sharing, should be included along with the cash flows of the contracts, in the reserve calculation.

- Reserves should be set within the range of expected outcomes and include measures of anticipated experience plus a margin for uncertainty (estimation error and adverse deviation). In addition, reserves should reflect appropriate adjustments to amounts derived from models to account for any simplifications in the model compared to reality. The resulting value shall be reasonably conservative over the span of economic cycles.

- Reserves do not need to reflect all of the risks included in RBC.

3. Risk-Based Capital

- The purpose of RBC is to identify weakly capitalized companies. As noted above, RBC is a method of measuring the minimum amount of capital appropriate for an insurance company to support its overall business operations in consideration of its size and risk profile. Under a PBA, this is accomplished by making provision for variations in premiums, other revenues and the costs of benefits and guarantees arising from the contracts in excess of those included in reserves, and for other obligations of the company which are not directly related to the contracts.
- In understanding the statement above, the SVL2 Committee believes:

  - The RBC calculation should ensure that the required level of statutory reserve remains covered throughout the RBC calculation horizon.

  - RBC should recognize at least the same risks included in reserves.

  - RBC should recognize at least the same income/revenue items as reserves. RBC should also recognize other revenue that may be associated with the company but not with a particular block of policies.

  - Each component of a RBC calculation should be calibrated to a consistent risk measure to facilitate identification of weakly capitalized companies.

4. Relationship of Reserves and RBC

Under a PBA, risks included in reserves would be a subset of the risks included in the determination of RBC. The Statement of a Principles-Based Approach provides guidance as to which risks should be included in the overall Principles-Based Approach. The 'purpose' statements above provide guidance as to the role of reserves and RBC and provide insight into which risks should only be reflected in RBC versus those that should be reflected in both RBC and reserves. More detailed guidance, adopted by statute, regulation or by inclusion in the Valuation Manual, specific to reserves and RBC should be recognized. Criteria for determination of the risks include:

- Whether the risks are anticipated;
- The relationship of the risk to the policy/contract; and
- How risks affect the amounts, timing and likelihood of the underlying cash flows

III. Draft Statement of Risks Reflected in Life Insurance and Annuity Reserves

July 18, 2007

Purpose: This section has been created to provide guidance to the American Academy of Actuaries' Life and Annuity work groups as they develop Principles-Based Approach (PBA) recommendations to regulators for reserves and Risk-Based Capital (RBC) regulatory reporting. This section takes the approach of identifying the risks that are reflected in reserves versus those that are in capital as a means of identifying the differences between the two values. It is understood that an equally valid and viable approach would be to state that both the reserves and capital calculation consider the same risks, but to different degrees.

Risks reflected in the determination of reserves for life insurance policies and annuities or contracts arising from actual or potential events or activities which are both:

(a) Directly related to those policies or contracts, or their supporting assets; and

(b) Determined capable of materially affecting the reserve.

Categories and examples of risks reflected in the determination of reserves include, but are not limited to:

- Asset Risks
  - ⇒ Separate account fund performance.
  - ⇒ Credit risks (e.g., default or rating downgrades).
  - ⇒ Commercial mortgage loan rollover rates (e.g., roll-over of bullet loans).
  - ⇒ Uncertainty in the timing or duration of asset cash flows; e.g., shortening (call/prepayment risk) and lengthening (extension risk).
  - ⇒ Performance of equities, real estate and Schedule BA assets.
  - ⇒ Separate account fund performance
  - ⇒ Risk associated with hedge instruments (includes basis, gap, price, parameter estimation risks, and variation in assumptions).
  - ⇒ Currency risk.
- Liability Risks
  - ⇒ Reinsurer default, impairment, or rating downgrade known to have occurred before or on the valuation date.
  - ⇒ Mortality/longevity risk
  - ⇒ Persistency/lapse risk
  - ⇒ Early payment of benefits risks (e.g., partial withdrawal, partial surrenders, loans and acceleration of death benefits)
  - ⇒ Premium payment risk.
  - ⇒ Anticipated mortality trends based on observed patterns of mortality improvement or deterioration, where permitted.
  - ⇒ Annuitization risks.

⇒ Additional premium dump-ins (high interest rate guarantees in low interest rate environments).

⇒ Performance of indices in relation to contractual guarantees.

- Combination Risks

⇒ Risks modeled in the company's risk assessment processes which are related to the policies or contracts, as described above.

⇒ Disintermediation risk (including such risk related to payment of surrender or partial withdrawal benefits).

Risks not necessarily reflected in the determination of reserves for life insurance and annuities or contracts are:

(a) Those which would not be reflected in a fully principles-based approach to the determination of Risk Based Capital; and

(b) Those which would be reflected in a fully principles-based approach to the determination of Risk Based Capital, but which arise from obligations of the company not directly related to the policies or contracts, or their supporting assets, as described above.

Categories and examples of risks not reflected in the determination of reserves include, but are not limited to:

- Asset Risks

⇒ Liquidity risks associated with a "run on the bank."

- Liability Risks

⇒ Reinsurer default, impairment, or rating downgrade occurring after the valuation date.

⇒ Catastrophic events (e.g., epidemics or terrorist events)

⇒ Major breakthroughs in life extension technology that have not yet fundamentally altered recently observed mortality experience.

⇒ Significant future reserve increases as an unfavorable scenario is realized.

- General Business Risks

⇒ Deterioration of reputation.

⇒ Future changes in anticipated experience (e.g., reparameterization in the case of stochastic processes) which would be triggered if and when adverse modeled outcomes were to actually occur.

⇒ Poor management performance.

⇒ The expense risks associated with fluctuating amounts of new business.

⇒ Risks associated with future economic viability of the company.

⇒ Moral hazards.

⇒ Fraud and theft.