History of Valuation

- 1858 Massachusetts Legislation
- Commissioner to Calculate Reserves on all policies of all licensed Companies
- Actuary Elizur Wright Appointed Commissioner
- Wright selected Net Level Premium Reserve Method and Combined Experience (1843 British) Mortality Table and 4% Interest Rate
- Controversial Decision of Immense Importance

Valuation In 2007

- Commissioner to Calculate or Cause a Valuation to be made of all Policies of all Licensed Companies
- Commissioner's Reserve Valuation Method and 2001 CSO Mortality Table with 4% Interest Rate
- 1990's Asset Adequacy Analysis Required

Valuation Methodology

- Virtually Unchanged for a Century & a Half
- One Size Fits All Companies
- Does not address all Insurance Risks
- Reserve too Conservative for Some Companies and not Adequate for Other Companies

Calculation Methodology

- Current Valuation Framework –

  A company's capital and reserve requirement is a function of prescribed regulatory formulas using industry based parameters.

- Principles-Based Valuation Framework –

  A company's capital and reserve requirement will be a function of that company's risk profile and risk management processes.

Consumer Impact of Change

- Better Solvency Protection Awareness
- Price Changes in Products
- More Products available for Consumer
- More Competition among Companies
- First Step towards Principles-Based Products
- What will come of Nonforfeiture Values?

Standard Valuation Law

- Similar Framework to Risk-Based Capital
- Law Grants Authority to Set Valuation Standards through a NAIC Process
- Law Grants Authority of Commissioner to Cause Valuations, Examinations & Determine Compliance
- Law References Valuation Manual
- Manual Contains Details of Valuation

Standard Valuation Law (SVL) Changes

- Compliance with the Valuation Manual satisfies compliance with the minimum reserve standard required by the SVL.
- Valuation Manual will provide this minimum standard of valuation for both inforce and new issues.
- The Valuation Manual is to provide the requirements for both the new principles-based valuations as well as non-principles-based valuations (e.g., health).
- Valuation Manual will provide the valuation standard by type of business as opposed to by type of company.

Implementation Objectives

- Enable Principles-Based Reserves
- Promote Uniformity In Reserve Requirements
- Provide Regulatory Balance & Oversight
- Provide Reserve Requirements in One Place
- One Exposure Process & One Adoption
- Promote Consistent Interpretations
- Coordinate With Capital Requirements
- Enhance Efficiency

Regulatory Oversight Tools

- SVL changes provide for an annual review of principles-based valuations by an independent qualified actuary.
- Provides for principles-based valuation reporting.
- Current draft of proposed new SVL states: "Commissioner may require a change to any assumption or method deemed inappropriate, unreasonable, or inconsistent with any of the requirements in the Valuation Manual or the Standard Valuation Law."
- Experience Reporting for purposes of determining industry experience and trends.

Internal Controls

- SVL changes provide a company shall adopt internal controls with respect to a principles-based valuation reasonably designed to assure that all material risks inherent in the liabilities and assets are included in the valuation and in accordance with the requirements of the Valuation Manual.

Other

- Certificate of Valuation requirement removed as a condition for the domestic commissioner to accept a foreign company valuation.
- Valuation Manual may provide for coordination with risk-based capital requirements given the direction for linkage with reserve requirements and the total asset requirement (TAR).

Definition of a Principles-Based Approach

- Captures all material risks.
- Utilizes risk analysis and risk management techniques.
- Incorporates assumptions and methods that are consistent with a company's overall risk assessment process.
- Permits the use of company experience, as credible for risks over which the company has some degree of control or influence.
- Recognizes the solvency objective of statutory reporting.

Reference full text of principles at www.actuary.org/risk.asp

Current statutory objectives for reporting

- Consistency Work Group chaired by Bob DiRico is documenting this.
- 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 principles-based approach. 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 recommendation.

Current Purpose Reserves & Capital

- 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.
- The purpose of RBC is to identify weakly capitalized companies

2007 Key Deliverables

- Valuation Manual
- Standard Valuation Law
- Conceptual integration of PBA into the examination structure and process
- Scope of Corporate Governance framework
- Finalize life reserve requirements
- Decide timeline and requirements for RBC
- Develop PBA timeline and requirements for annuity reserves

Looking Ahead to 2008

- PBA Components ready for NAIC adoption in early 2008 (or late 2007):
  - Life Reserve Requirements
  - New Standard Valuation Law
  - Valuation Manual Content & Structure (1st exposure at June meeting)
  - Begin integration of PBA into the examination process

Policy Issues for PBR (EX) Working Group to Consider

- Purpose of reserves, RBC & ERM in a principles-based framework
- Role of corporate governance in a principles-based environment
- Who “owns” principles for reserves vs. solvency oversight?
- Possible use of prototyping
  - i.e., select limited products for initial PBA roll-out
- Data collection oversight
- State Regulatory Feedback loop

Valuation Manual

Valuation Manual Effective Date

SVL changes provide an effective date of January 1st following the date that both:

1) The Valuation Manual is adopted by 3/4th majority of the NAIC, and

2) The number of states specified in the Valuation Manual, but not less than a majority, has adopted the revision to the Standard Valuation Law.

Valuation Manual

- Structure for Uniform Valuation Requirements Among States.
- Standard Valuation Law Eliminates Need to Adopt Valuation Manual by Regulation.
- States Retain Control for Valuation Manual Contents.

Valuation Manual Objectives

- Implement principles-based reserves.
- Include all other non-principles-based reserves.
- Provide reserve requirements in one place.
- Provide reporting requirements in one place.
- Construct Valuation Manual so that the APPM can use the same requirements.
- Enhance uniformity and efficiency by coordinating with APPM to achieve one exposure and one adoption process.

Valuation Manual Objectives (cont.)

- Achieve maintenance efficiencies in ability to update Valuation Manual requirements on an annual basis, if needed.
- NAIC to have process to update manual which may be similar to process to update RBC instructions.
- Coordination with other NAIC Group (LHATF, CADTF, and SAPWG) in order to appropriately address related considerations and accomplish a single adoption process by one NAIC group.
- Work with NAIC - SAPWG to have Valuation Manual published within the APPM.

Valuation Manual (Rough Draft) Table of Contents

- Introduction & Principles-Based Preamble
- Scope / Authority section
- Definitions?
- Reserve Requirements
  - Non-principles-based (Health, exemptions (if any))
  - Principles-based requirements (Life, Annuity, etc.)
  - Any Transition requirements
- Annual Principles-Based Review Requirements
- Experience Reporting Requirements
  - Includes information on statistical agents
- Principles-Based Reporting and Disclosure Requirements
- Section for guidance?

Introduction and Preamble

- Background & Goals of the Manual
- Description of the parts of the Manual
- Operative date of the Manual
- Process for updating the Manual
- Concept & Common Elements of PBA

Authority & Scope

- Inforce business on effective date of the Manual would follow that state's requirements on that date with the exception of business that would be within the scope of VACARVM and would therefore follow those requirements.
- Business on and after the effective date of the Manual for which new principles-based requirements have been adopted would follow those requirements.
- Business on and after the effective date of the Manual for which new principles-based requirements <u>have not been developed</u> (e.g., Health, possible exempted products) would follow VM requirements which would be based on NAIC requirements as of that date.

Non-Principles-Based Requirements

- Primarily based on APPM Appendix A & C requirements and applicable SSAPs with minimal changes plus adding any requirements needed. Any additional requirements needed in the Valuation Manual would not be referenced by SSAPs if they are not deemed necessary or appropriate accounting guidance.

Inclusion of AOMR requirements

- Although not in the APPM, the Draft Valuation Manual will include the AOMR requirements
- Potential issues that arise regarding applicability to Health blank entities, single state exemptions, etc. and are being reviewed.

Principles-Based Requirements

- The new principles-based requirements for life insurance are those recommended by the Academy's Life Reserves Work Group (LRWG).
- Requirements are being developed by the Academy's Annuity Reserves Work Group and by the Academy's Variable Annuity Reserves Work Group.

Annual Principles-Based Review Requirements

This annual review by an independent actuary would provide information for state annual financial analysis as well as for state financial examinations.

The draft Valuation Manual currently includes

- Filing and Designation Requirements
- PBA Review Opinion Requirements
- PBA Report and Documentation Requirements

Experience Reporting Requirements

Section 11(I) of the proposed Standard Valuation Law (SVL) states the following:

> "A company shall file experience as prescribed in the valuation manual in the form of statistical reports showing mortality, morbidity, policyholder behavior, expense experience, and other data for purposes of determining industry experience and trends"

- More details this afternoon.

Principles-Based Reporting Requirements

- PBA Certification - Recommended wording
- Disclosure and Documentation Requirements as appropriate regarding methods, risks, and assumptions in a principles-based environment. Currently is
  - split by product
  - includes a “general” section

Additional Consistency Review

- The Academy's Valuation Law & Manual Team (VLMT) is in a unique position to review and work with all requirements being put into the Valuation Manual. Given this position the VLMT will also review requirements for consistency including consistency in principles-based approaches being implemented. This effort will supplement those of another Academy Work Group with a similar focus. These joint efforts are hoped to bolster the consistency in resulting requirements in the Valuation Manual.

Input To LHATF & (EX) PBR WG

- Status and work products of the Academy's Valuation Law & Manual Team will be provided for calls of LHATF and its SVL-2 Subgroup chaired by Larry Bruning.
- The Team in turn will respond to any direction or requests from LHATF.
- Similar communication will be provided to the NAIC Principles-Based (EX) Working Group for their feedback and direction.
- NAIC exposure process of changes to the Valuation Manual would involve the SAPWG and others as appropriate to accomplish one exposure process and one adoption of reserve requirements.

Some Additional Pieces

- To Be Added To The Valuation Manual :
  - Process for initial adoption of Valuation Manual.
  - Process for changes to the Valuation Manual.
  - Coordination with appropriate NAIC groups.
  - Index by product type for applicable Valuation Manual requirements.
  - Direction regarding use and contents of a section on guidance.

Consistency and Uniformity

Guidance

- Increased judgment in a principles-based environment creates more situations for regulatory judgment.
- A centralized effort to provide guidance and interpretations for these situations is being considered.
- Interpretations could then be placed in the Valuation Manual to promote consistency among states.

VLMT Subgroups

- Subgroup 1 (Dave Neve) - Currently working on reporting requirements for principles-based reserves.
- Subgroup 2 (Mike Boerner) - Efforts focused on drafting the Valuation Manual. Incorporating PBR and non-PBR requirements and any optional exemption or transition requirements for certain business including low-risk products.
- Subgroup 3 (Russ Menze) - Developing experience reporting requirements, instructions, forms for reporting, and analysis considerations.
- Subgroup 4 (Pam Hutchins) - Working with the Academy Life Reserves Work Group to address principles-based requirements for products with less risk.
- Recommendations on ASOP considerations to be discussed across subgroups and entire VLMT.

PBA Reviewer

What a PBA Reviewer Is

- As currently drafted in Valuation Manual, it is someone who annually reviews PBA assumptions
- Evaluates the judgment used by the valuation actuary, but does not duplicate auditors’ work
- Is hired by Company management
- Works with PBA actuary
- Provides report to Company management and regulators

Objectives of the PBA Review

- Provide assurance regarding the PBA valuation:
  - Validate actuarial judgment
  - Confirm compliance
  - Reinforce valuation process
- Promote consistency across companies
- Provide information for state financial analysis in between exams
- Facilitate state exam and audit work

Who Does the PBA Review

- Work Group recommends external, independent reviewers
  - Consulting actuary; or
  - Auditing actuary (performs an audit for the same client).
- LHATF is still considering whether auditing actuaries should be allowed to perform PBA review.

Independence

- Cannot be company management
- Cannot participate in the work he/she is reviewing
- Cannot serve in an advocacy role for the company.
- Shall not have conflict of interest

Qualifications of a PBA Reviewer

- Same qualifications as a PBA actuary
- Special course/seminar mostly taught by regulators?

Background on LRWG

- Part of the Academy's overall principles-based initiative
- LRWG was organized in July, 2004
- Charge: develop a PBA proposal for all life products
- Primary focus is developing a sound proposal from an actuarial perspective.
- Other Academy groups are addressing accounting, governance and implementation issues.

Overview of Proposed LRWG Approach

The reserve is a stochastically derived reserve (Stochastic Reserve) using a prescribed CTE level, but not less than a single scenario deterministic reserve (Deterministic Reserve), where the reserve is calculated as the Deterministic Reserve plus the excess, if any, of the Stochastic Reserve over the Deterministic Reserve.

Overview of Proposed LRWG Approach

Deterministic Reserve:

1. Based on Gross Premium Valuation (GPV) method.
2. GPV reserve = Present value of future benefits and expenses, less present value of future gross premiums.
3. Is not designed to capture tail risk
4. Is subject to a cash surrender value floor on a contract by contract basis

Overview of Proposed LRWG Approach

<u>Stochastic Reserve</u>:

1. Multiple scenarios will be used to properly capture the "tail risk" of the contract (risks that have high impact, but low probability)
2. Only interest rates and equity returns will be modeled stochastically
3. Will use a CTE (conditional tail expectation) level that is set by regulators, such as 65 CTE
4. Reserve for each scenario will be based on the Greatest Present Value of Accumulated Deficiencies (GPVAD) due to regulatory concerns over interim deficiencies.

Overview of Proposed LRWG Approach

Prudent Estimate Assumptions

- Assumptions not stochastically modeled will be based on the actuary's estimate of the future "Anticipated Experience" plus a margin that includes a provision for adverse deviation and estimation error.

- Margins will be determined by the actuary using professional judgment, subject to the guidelines established by the NAIC and ASOPs.

Overview of Proposed LRWG Approach

Stochastic Modeling Exclusion

- May not be necessary to perform stochastic modeling for groups of policies where it can be demonstrated that the Deterministic Reserve will adequately cover the risks.

- Requires that the Stochastic Reserve for these policies be determined using an aggregate GPVAD approach.

Overview of Proposed LRWG Approach

Asset Model Is Needed to Project Cash Flows

- Expect most companies to use cash flow testing model
- Asset Model is used to determine:
    - Discount rates
    - Earned rates for surrender benefits
    - Accumulated assets for GPVAD calculation for Stochastic Reserve

Outstanding LRWG Technical Issues

1) Treatment of non-proportional and/or catastrophic reinsurance coverages.
2) Additional guidance on Non-guaranteed elements.
3) Criteria to determine when a product does not have "Material Tail Risk"

LRWG Priorities for 2007

1. Finalize outstanding technical issues.
2. Develop recommendations on prescribed elements.
   - CTE level
   - interest rate and equity assumptions for Deterministic Reserve
3. Perform additional product modeling and analysis.
4. Consider suggestions resulting from discussions between the ACLI and the U.S. Department of Treasury
5. Review comments received on the exposure draft.
6. Address alternative, simplified PBA approaches.

Alternatives to current LRWG Proposal

1. Academy Subgroup has been formed to address transitional issues and concerns raised by small companies.
2. Discussion was held with LHATF on 2/9 via conference call on possible alternatives to the “full blown” LRWG approach.
   - Add simplifying elements to the current LRWG approach to address the concerns above.
3. Three possible alternative approaches under discussion:
   - Phase in the LRWG requirements by product type.
   - Develop a new simplified PBA approach that is outside the LRWG framework, but still meets PBA principles.

Background

- Regulators and industry groups have commented on:
  - Product exemptions.
  - The complexity and expense of the PBA process as it applies to all products, even though some products may have minimal tail risk.
  - Non-discriminating application of a PBA approach may be more expensive and complicated than is necessary or practical to compute reserves for some types of life insurance products.
  - The cost and use of resources to perform a full, stochastic-based PBA analysis may not be necessary for products that do not have a significant tail risk.

Major Areas of Concern

- The process to justify the exclusion from stochastic modeling is perceived to be too complex. The resources required for this process will put a strain on many companies where it may not be needed given their product mix.

- The cost of an extensive and independent PBA review of a complex PBA process.

- The experience reporting required for a myriad of assumptions, including mortality, lapse and policyholder behavior may be unnecessary (or at least not necessary annually) for companies that do not have material experience.

- The cost of the PBA approach may put smaller companies at a disadvantage in a way that may lead to an unlevel playing field.

Subgroup 4 Status

- Subgroup 4 has been working with the Academy's Life Reserves Work Group to address principles-based applications for simpler forms of business.
- This liaison has produced the concept of a material tail risk test for business to determine if a simpler deterministic approach can be used.
- Modeling will be performed to better assess and clarify instructions for this material tail risk test. This test is currently reflected in the Academy's LRWG document provided at this meeting.

Subgroup 4 Survey

- Subgroup 4 developed a survey distributed by Randall Stevensen to LHATF and interested state regulators.
- Survey elicited feedback on types of business which should be subject to principles-based reserves on the Valuation Manual operative date versus later.
- A summary of the survey responses is attached to the VLMT report to LHATF.

Subgroup 4: Possible Phase In

- Three phases
- Control implementation of each phase through Valuation Manual
- As experience is gained with each phase, refinements may be made to requirements and methodologies through the Valuation Manual.

Phase 1: Apply PB Reserves to Products With More Risky Characteristics

- Examples:
  - Products that use Separate Accounts.
  - Products that contain long-term secondary guarantees (e.g., 20 years or more).
  - Term products with initial level guaranteed period of 20 years or more.
  - Products that contain interest crediting based on an equity index.

Phase 2: Make Refinements Based on Phase 1 Experience

- For example, apply principles-based reserves to fund based products and all other individual term insurance.
- Implement Material Tail Risk test (MTR)

Phase 3: Make Refinements Based on Phase 2 Experience

- Subject other products to principles-based reserves except those with continued exemptions. Exemptions might include (see Subgroup 4 survey results):
  - Credit Life & Disability
  - Final Expense
  - Traditional Whole Life

INDUSTRY COMMENTS

- NALC – National Association of Life Companies
  - Trade association representing about 50 companies active in the life & health markets
  - Primary role – provide voice for small & medium companies
- ACLI – American Council of Life Insurers
  - Represents companies with more than 93% of industry's assets

INDUSTRY COMMENTS (cont)

- ACLI Letter to LHATF – Dec. 2006 NAIC Meeting
  - Suggested a Phase-In to gain experience
  - Commented on cost effectiveness
    - State variations should be avoided
    - Cost/benefit important
    - Would like to see reasonable safe harbors for products with limited or no tail risk
  - Process must be practical and auditable
  - Margins need to be evaluated in the aggregate
  - Treatment of non-guaranteed elements
  - Must work within the current tax code
  - Confidentiality is critical

INDUSTRY COMMENTS (cont)

- NALC Letter to LHATF – June 2007 NAIC meeting
- Comments on both reserve and risk based capital proposals
  - Recommend Phase-In
  - Similar to phase-in proposed by subgroup 4
  - Proposal includes exemption for smaller companies based on asset size $100 Million or less

Industry Comments (cont)

- Characteristics of smaller companies
  - More highly capitalized
  - Tendency not to sell riskier products
  - Additional expenses to implement PBR would be a significant percentage of
    - General Expenses
    - Net Income

2005 Annual Statement Data						
Total Asset Threshold	Number of Companies	Ratio of C&S to TA	Mean General Expenses	Median General Expenses	Mean Net Income	Median Net Income
<$20 million	322	57%	683,000	160,000	176,000	91,000
<$40 million	410	49%	1,007,000	242,000	309,000	140,000
<$100 million	518	42%	2,086,000	412,000	556,000	211,000
<$500 million	700	27%	5,087,000	936,000	1,736,000	351,000
Total Industry	1,022	7%	46,119,000	3,655,000	39,576,000	974,000
		Prepared by Mark Birdsall for NALC letter, June 2007 NAIC meeting				

Industry Comments (cont)

- Exempt Companies – Assets $100 million or less
  - Would use current formulaic reserves
  - Could make one time election into PBR
  - Lose exemption if they begin to sell products with riskier characteristics
  - Simplified Experience Reporting (Assets $750 Million or less)
- Alternative Proposal for RBC
  - Exempt companies use current RBC factors
  - Same phase-ins as for reserves

Monitor progress of PBA

- Academy Web Casts – Next Web Cast June 20
- Web Sites – Academy and NAIC
  - www.actuary.org/risk.asp
  - http://www.naic.org/committees_ex_pbr_wg.htm
- ACLI contact: John Bruins (JohnBruins@acli.com)
- NALC contact: Leon Langlitz – llanglitz@lewisellis.com
- Contact your insurance department regulators
  - Especially those with membership on LHATF
- Volunteer on AAA Committees – recent survey