AMERICAN ACADEMY of ACTUARIES

Report on PBA Review and Other Governance Issues of Principles-Based Valuation From the American Academy of Actuaries Principle-Based Review and Governance Work Group

Presented to the National Association of Insurance Commissioners Life and Health Actuarial Task Force

Washington DC – June 2006

The American Academy of Actuaries is a national organization formed in 1965 to bring together, in a single entity, actuaries of all specializations within the United States. A major purpose of the Academy is to act as a public information organization for the profession. Academy committees, task forces and work groups regularly prepare testimony and provide information to Congress and senior federal policy-makers, comment on proposed federal and state regulations, and work closely with the National Association of Insurance Commissioners and state officials on issues related to insurance, pensions and other forms of risk financing. The Academy establishes qualification standards for the actuarial profession in the United States and supports two independent boards. The Actuarial Standards Board promulgates standards of practice for the profession, and the Actuarial Board for Counseling and Discipline helps to ensure high standards of professional conduct are met. The Academy also supports the Joint Committee for the Code of Professional Conduct, which develops standards of conduct for the U.S. actuarial profession.

Principles-Based Review and Governance Work Group

Shirley Hwei-Chung Shao, F.S.A., M.A.A.A., Chairperson

Tom Bakos, F.S.A., M.A.A.A.
Michael Boerner, A.S.A., M.A.A.A.
Larry Bruning, F.S.A., M.A.A.A.
Cecil Bykerk, F.S.A., F.C.A., M.A.A.A.
Katie Campbell, 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.
Helen Galt, F.S.A., M.A.A.A.
Frank Irish, F.S.A., M.A.A.A.
Kerry Krantz, F.S.A., M.A.A.A.
Barbara Lautzenheiser, F.S.A., F.C.A., M.A.A.A.
Michael Mayberry, F.S.A., M.A.A.A.
Bob Meilander, F.S.A., M.A.A.A.
Dave Neve, F.S.A., M.A.A.A.
Tom Rhodes, F.S.A., F.C.A., M.A.A.A.
Link Richardson, F.S.A., M.A.A.A.
John Rink, F.S.A., M.A.A.A.
Dave Sandberg, F.S.A., M.A.A.A.
Kristin Schaefer, A.S.A., M.A.A.A.
Naryan Shankar F.S.A., M.A.A.A
Sheldon Summers , F.S.A., M.A.A.A.

The Principles-Based Review and Governance Work Group would also like to acknowledge the work of Deborah Whitmore, CPA.

Background

As we build the principles-based approach (PBA) valuation, one key to its success is the governance structure, including a "peer" review of actuarial judgment applied in completing such a valuation effort. This paper provides an analysis of the key issues surrounding the PBA review and other governance issues as well as provides our recommendations. This draft report reflects our current thought process and work to date, which can serve to start the discussions of these important issues.

PBA Review

Actuaries are involved with different types of review processes in their work. These can be fit into several broad categories such as: Peer Review; Second Opinion; Audit; and Examination. Different individuals may have distinctly different views on what these broad terms mean. The Principles-Based Review and Governance Work Group ("Work Group") determined that a "peer" review process as typically applied in the actuarial profession has associated with it certain expected structures and characteristics which would, likely, be incompatible with the type of review expected in connection with a PBA valuation. Therefore, the Work Group named the type of review to be associated with a PBA valuation a "PBA Review" and set out to define the structure and characteristics unique to this type of review.

Key Issues

The Work Group identified 18 key issues to be considered and evaluated in developing the structure and characteristics of a PBA Review process. These are:

0. Need for a PBA Review
1. Differences between a PBA Review and other forms of review
2. Hiring the PBA Reviewer
3. Scope of a PBA Review
4. Audience and objectives of a PBA Review
5. Timing/Frequency of a PBA Review (pre- or post-Release)
6. Independence of PBA Reviewer
7. Qualifications of the PBA Reviewer
8. Reporting/working relationships of PBA Reviewer
9. Effect on Valuation Actuary work
10. Regulator review and use of PBA Review
11. Changes in State Examination and External Audit processes (addressed by other groups)
12. Legal protection of PBA Reviewer (addressed by other group)
13. PBA Review opinion/report format
14. Required changes in Standard Valuation Law, ASOPs, etc. (not addressed as of date of this report)
15. Application: in force vs. new business (addressed by another group – needs to be consistent with the PBA valuation)
16. Benchmarking to other related foreign professional processes
17. Application to capital as well as reserves (this paper focuses on reserves, the Work Group will consider if applicable for risk-based capital later)

Three of these Key Issues are being addressed by other groups, 13 are discussed below, and two will be addressed later. These recommendations focus on PBA reserves.

Recommendations/Conclusions on Key Issues

The recommendations by the Work Group with respect to each of these Key Issues are summarized below. Please note that these recommendations focus on reserves; the Work Group will be evaluating later whether the same or similar recommendations should be applied to risk-based capital.

0. Need for a PBA Review

A Principles-Based Valuation adds a greater degree of actuarial, decision making into the valuation process. A PBA Review would serve to provide information regarding these subjective elements to either support confidence in these assessments or to identify where attention is needed. Customers benefiting from a PBA Review include regulators, company management, and the audiences with which each deals.

Offsetting this benefit, of course, is the additional cost and complication associated with the addition of any new process.

The Work Group believes that the benefits of a PBA Review process outweigh the negatives and recommends that a PBA Review be considered as a part of a PBA valuation process.

1. Differences between a PBA Review and other forms of review

The Work Group recommends that a PBA Review must be specifically defined since it is a new kind of review process.

In discussing this Key Issue the Work Group noted that actuaries are involved with different types of review processes in their daily work. These review processes fit into several broad categories such as: Peer Review; Second Opinion; Audit; and Examination. In a detailed report on this Key Issue, the Work Group identified differences between these review processes and used that analysis to structure a PBA Review process.

2. Hiring the PBA Reviewer

A key element in the discussion of this Key Issue is independence. It is clear that the PBA reviewer should avoid reviewing her/his own work and should be free of conflicts of interest. In particular the PBA Reviewer should not provide specific solutions for valuation issues that are being reviewed.

The two options for who should hire a PBA Reviewer are: the company whose Principles-Based Valuation is being reviewed or the regulator responsible for examining the company's Principles-Based Valuation. After considering the advantages and disadvantages associated with each approach, the Work Group recommends that:

- the company be responsible for hiring the PBA Reviewer and notifying the regulator;
- the company be required to communicate any subsequent change in PBA Reviewer to the regulator and the rationale of the change (including an indication of whether or not previous PBA Review opinions had a part in the change decision); and
- the departing PBA Reviewer be provided an opportunity to communicate to the regulator any disagreement with the reasons given for the change.

The Work Group recommends that the company's Board of Directors or their designees hire and discharge the PBA Reviewer.

3. Scope of a PBA Review

In discussing the Scope of a PBA Review, it was determined by the Work Group that a PBA Review is, basically, defined as an evaluation and the formation of an opinion regarding the actuarial judgment used by the valuation actuary in carrying out a PBA valuation. Essentially, it was determined that a PBA Review was to focus on the elements of a PBA valuation requiring actuarial judgment.

It is recommended that the Scope of a PBA Review include an evaluation of at least the following elements:

- Material risks captured
- Appropriateness of methods employed
- Appropriateness of assumptions in terms of: supportability, consistency and frequency of review
- The reasonableness of actuarial judgment used in the modeling processes (e.g., cell constructions; fund mapping; stochastic generators)
- Compliance with regulatory and professional requirements
- Adequacy of documentation

It is recommended that the Scope of a PBA Review not include:

- Checks of computation
- Data quality and reconciliation
- Control procedures
- Adequacy of reserves

4. Audience and Objectives of a PBA Review

The Work Group concluded that because of the independence requirements, the PBA Reviewer should be able to serve multiple audiences without compromising his/her opinion.

The objectives of a PBA Review should be very similar for all audiences:

- Provide assurance regarding the PBA valuation
    - Verify reasonableness of actuarial judgment
    - Verify compliance with regulations and professional standards
- Reinforce PBA valuation process
- Promote consistency across companies
- Provide valuable information in an analysis to regulators between state examinations
- Facilitate state exam and audit work

5. Timing/Frequency of a PBA Review (Pre- or Post-Release)

The Work Group recommends that a PBA Review be an annual process so as to be consistent with the annual valuation cycle. It is expected that subsequent annual reviews will include a consideration of changes from the prior year's valuation. The Work Group concluded that most aspects of a PBA Review should be done on a pre-release basis with the remainder done on a post-release basis, where these terms are defined by the following:

Pre-Release: Refers to work or analysis of the valuation actuary's work done by a PBA Reviewer <u>prior to the release</u> by the valuation actuary of a Principles-Based Valuation.

Post-Release: Refers to work or analysis of the valuation actuary's work done by a PBA Reviewer <u>after the release</u> by the valuation actuary of a Principles-Based Valuation.

The Work Group believes that the PBA Review process should be conducted over a period of several months in parallel with the work schedules usually employed by valuation actuaries. The pre-release discussion of issues would allow the valuation actuary and the PBA Reviewer to resolve any differences (could range from documentation to selection of assumptions – see scope of PBA Review above) in the PBA valuation process in a timely manner without significantly delaying the valuation.

While most PBA Review work should be completed on a pre-release basis, the Work Group recommends 3/31 be the filing deadline for the PBA Review Opinion. This allows the PBA Reviewer a chance to review the final PBA report, annual statement and any last-minute issues on a post-release basis.

6. Independence of PBA Reviewer

The PBA Reviewer should be independent of all other entities involved in the PBA valuation.

Therefore, the Work Group recommends that a PBA Reviewer not be an employee of the company being reviewed. We recommend that the PBA Reviewer be an external actuary who satisfies the qualification requirements for performing a PBA Review and is not otherwise conflicted out of such an assignment (see below for the conditions). Given our recommendation that the company hire the PBA Reviewer, the Work Group concluded that either a consulting actuary or an actuary employed by the company's auditor should be able to serve in the role of PBA Reviewer. For companies subject to SOX, the company Board of Directors must approve the hiring of the company's auditors as the PBA Reviewer. The Work Group also recommends a separate engagement letter specific to the PBA Reviewer.

The Work Group further recommends:

- the PBA Reviewer not be employed by the same consulting/auditing company as the Appointed Actuary.
- the PBA Reviewer not have been an employee of the insurance company in the past three years.
- the PBA Reviewer not be a shareholder or have a financial interest in the insurance company other than as a policyholder, beneficiary, or insured.
- additional analysis be given to the requirement of rotating the PBA Reviewer periodically

7. Qualifications of the PBA Reviewer

The Work Group recommends that the PBA Reviewer have the same qualification requirements that apply to Appointed Actuaries.

All actuaries are expected to satisfy the Qualification Standards established by the profession. The Appointed Actuary is currently subject to the Specific Qualification Standards, which have three components: Basic Education, Experience, and Continuing Education. The Work Group recommends that the PBA Reviewer be subject to these same requirements.

8. Reporting/Working Relationships of PBA Reviewer

The Work Group recommends that the company's relationship with the PBA Reviewer be similar to that with its auditor. The company can discharge the PBA Reviewer subject, of course, to the previously discussed Key Issue #2 conditions.

The PBA reviewer and valuation actuary should have a collegial and cooperative peer relationship and should work together throughout the valuation process. While the valuation actuary is only required to produce the PBA valuation report by the annual statement filing date, it is expected that prior drafts will be shared with the PBA Reviewer as the work is being performed.

The Work Group recommends that the PBA Reviewer and the company Board of Directors have a client and service provider relationship similar to the relationship between a Board of Directors and an auditor. The PBA Reviewer is responsible to the Board of Directors and will have an ongoing dialogue with the Board of Directors. The work product from the PBA Reviewer will go to the Board of Directors.

To avoid a possible conflict with management, it is recommended that the PBA Reviewer report directly to the company's Board of Directors. The Board of Directors may also be informed of any material differences between the PBA valuation and PBA Review. If the Board of Directors and the PBA Reviewer cannot satisfactorily resolve a material issue, the PBA Reviewer could issue a "qualified" opinion.

9. Effect on Valuation Actuary Work

The Work Group discussed how the PBA valuation may fit into the current valuation process, as it's a building block to understanding how the PBA Review may fit in.

The Work Group recommends that the Appointed Actuary issue a single public Actuarial Opinion covering both PBA and non-PBA valuations. The need for additional public certifications and the role and responsibilities of the certifiers are still under study.

Most of the current work surrounding the asset adequacy analysis can be applied to the PBA valuation with some modifications. For example, the Statement of Actuarial Opinion would require only minor modification to accommodate a PBA valuation. In addition, the Actuarial Memorandum can be expanded to include, for example, more documentation on the derivation of assumptions and margins, as needed.

10. Regulator review and use of PBA Review

The Work Group recommends that the regulator use the PBA Review as a financial oversight tool. In particular, while valuations are done annually, state regulatory examinations are done less frequently (for example, every three to five years). And, not all states participate in an examination but, rather, rely on the examination work done by the state of domicile. Therefore, an annual PBA Review will provide assurance between state examinations that regulations have been complied with. It will also provide regulators with valuable information that can be used in their financial analyses.

The Work Group recommends that the regulatory reviews of PBA valuation be uniform. This means that there will be uniform adoption of the PBA laws, regulations as well as uniform regulatory oversight (such as filing, issuance of certificates of valuation, state exams). Uniformity is a key to the success of PBA valuation (please see Other Governance Issues Key Issue #3 for recommendations). The Work Group recommends changes to each component of the regulatory review (e.g., certifications of valuation, statement of actuarial opinion). Because of the volume of the filing, the Work Group recommends that the NAIC establish a database to manage the filing and facilitate sharing among states.

11. Changes in State examination and External Audit processes (addressed by other groups)

12. Legal protection of PBA Reviewer (to be determined)

This Key Issue is under study.

13. PBA Review opinion/report format

The Work Group recommends that there be a PBA Review Opinion with the detail set forth in Key Issue #3. Whether or not the opinion should be public is still under study.

As proposed in Key Issue #3 the PBA Review opinion would consist of statements along the following content:

I have reviewed the PBA valuation performed by [valuation actuary] and in my opinion:

- all material risks are captured,
- the methods used are appropriate,
- the models used are reasonable for the purpose,
- the assumptions used are supportable,
- the margins in the reserves are supportable, and
- the actuary has followed all relevant laws, regulations, AGs, and ASOPs in doing this work.

The Work Group recommends that, in accordance with applicable Actuarial Standards of Practice, the PBA Reviewer documents his/her work. However, the Work Group recommends that, in order not to have an adverse effect on the frankness of the review process and to preserve confidential company information, such documentation be available only to the company, its auditor and to regulators as deemed necessary to provide a complete and full understanding of the basis for the opinions expressed. The Work Group is still evaluating if a confidential formal report is needed.

14. Required changes in Standard Valuation Law, ASOPs, etc. (not addressed, as of date of this report)

The Work Group will be evaluating which part of law, regulations, Actuarial Guidelines or ASOPs should be modified to accommodate these recommendations.

15. Application: In Force vs. New Business (subsequently deleted from consideration)

This Key Issue was not addressed as part of the PBA Review analysis. It was concluded that the PBA Review should be a review of a PBA valuation whatever the content of the PBA Valuation.

16. Benchmarking to other PBA Review systems

The Work Group reviewed the External Review system in Canada as well as the External Peer Review system in Australia (only applies to P&C). Circumstances and intent are different in different environments. However, the Work Group feels that the recommendations it has made are generally consistent with the similar processes in place in different operating environments.

The following are major differences:

- Both Australia and Canada require a confidential PBA Review report to the regulators, company and auditors. They do not require a public PBA Review Opinion. The logic is that the public relies on the Appointed Actuary for the PBA valuation.
- The scope of the PBA Review in Australia and Canada has similar focus (i.e., actuarial judgment) except that Australia also includes controls. But, both apply the PBA Review very broadly: i.e., to reserves as well as capital. Canada also applies it to dynamic solvency testing, fair treatment of par business, etc. Canada is also expanding the role of Appointed Actuary in signing off on capital.
- Both Canada and Australia explicitly limit access to the PBA Review to regulators, external auditors and companies.
- Work process: Canada requires full PBA Review once every three years since its PBA Review covers reserves, capital, dynamic financial, equity treatment for par policyholders, etc.
- Protection for the PBA Reviewers: To make the PBA Reviewer’s report “private” provides protection for the PBA Reviewer in both Canada and Australia. In addition. Australia prescribes that the External Peer Review is a review, but does not provide a guarantee, of the Primary Actuary’s Actuarial Advice.

17. Application to risk-based capital as well as reserves (to be addressed later)

These recommendations focus on PBA reserves. The Work Group will be evaluating whether the same or a similar PBA Review process should be applied to the calculation of risk based capital.

Detail of Analysis

The Work Group has prepared a detailed analysis to support the recommendations above. This detailed analysis is still in draft form and will evolve but may be useful to further discussions and thought development. It is not attached as a part of this report but may be available for the June NAIC meeting or shortly thereafter.

Other Governance Issues

The Work Group identified 14 key issues to be considered and evaluated in developing the structure and characteristics of other elements of governance for the PBA valuation. These are:

0. Difference between PBA valuation and non-PBA valuation
1. Current valuation structure (e.g., Appointed Actuary) in the PBA valuation
2. Objectives of PBA governance and the audience
3. Uniformity (state adoption of consistent laws and ongoing oversight)
4. Role of Company Board of Directors
5. Role of other company management (not addressed as of date of this report)
6. Regulatory oversight (not addressed as of date of this report)
7. Governance for actuarial profession (not addressed as of date of this report)
8. Conflict resolution (largely addressed in KI #8 of the PBA Review)
9. Public disclosure (not addressed as of date of this report)
10. Legal environment (not addressed as of date of this report)
11. Application: in force versus new business (not addressed as of date of this report)
12. Benchmarking to other related governance models and processes (several governance models are reviewed)
13. Required changes in Standard Valuation Law, ASOPs, etc. (not addressed as of date of this report)

Recommendations/Conclusions on Key Issues

The recommendations of the Work Group with respect to each of these Key Issues are summarized by the following. Please note that the recommendations below focus on reserves; the Work Group will be evaluating whether the same or similar recommendations should be applied to risk based capital later.

0. *Difference between PBA valuation and rule-based valuation*

   The Work Group analyzed the differences between PBA valuation (as proposed by the LRWG) over rule-based valuation:

- Uses principles to measure risks rather than using rules
- Allows company specific experience
- Allows actuarial judgment in assumptions and modeling processes
- Continuously updates assumptions rather than only using assumptions set at issue
- Emphasizes interaction with other company processes such as pricing, risk management, and experience studies
- Requires additional governances such as a PBA Review process
- May require additional disclosures

1. *Current valuation structure (e.g., Appointed Actuary) in the PBA valuation*

   The Work Group recommends that the Appointed Actuary sign the Statement of Actuarial Opinion for the entire company that covers both PBA valuation and non-PBA valuations. The Appointed Actuary opines that the reserves for the entire company (including both PBA and non-PBA valuations):

   - comply with the laws, regulations and professional standards; and
   - are adequate in light of the supporting assets.

   The Work Group recommends that the Appointed Actuary decide whether to use the PBA valuation as an asset adequacy analysis method, if any additional analysis is needed, or an alternative analysis method is needed to reach the conclusion that the company's total reserves are adequate. For certain PBA valuations, there may not be a need for additional analysis.

   The Work Group is evaluating if public PBA certifications (one certification per PBA valuation), in addition to the Statement of Actuarial Opinion, are needed to support the PBA valuation.

2. *Objectives of PBA governance and the stakeholders*

The Work Group believes that the stakeholders of an insurer will not change because of PBA valuation. However, the Work Group concluded that changes to corporate and regulatory governance rules and processes, because of PBA valuation, will impact certain stakeholders. The Work Group will address in other key issue papers these changes and potential impacts on stakeholders, including, regulators, Board of Directors, company management, and the actuarial profession.

The entities governing an insurer are state insurance regulators along with company management and Board of Directors. Regulatory objectives differ from company objectives with respect to governance.

<u>Regulatory Objectives</u>
A primary objective of regulators is to protect consumers via monitoring solvency of the insurer. Regulators assess solvency through analysis of statutory financial statements. The Work Group believes that the current regulatory objectives will remain under PBA valuation, although additional objectives may be appropriate and regulators will likely need to make significant changes in their governance rules and processes in order to meet those objectives.

The Work Group recommends a discussion and analysis of additional regulatory objectives by the regulators, including an objective of aligning regulatory objectives and company objectives, as well as analysis of the importance and emphasis placed on each objective. This will allow the Work Group to consider if and how current statutory principles of conservatism, consistency and recognition need to be coordinated with additional objectives under a PBA valuation.

<u>Company Objectives</u>
A primary objective of companies is the creation of company, creditor, investor, and policyholder (in the case of mutual companies for example) wealth. This objective underlies current GAAP financial reporting requirements, which focus on emerging earnings and appropriate balance sheet. Another important objective of companies is the requirement to comply with state and federal laws and regulations. The Work Group concludes that these Company objectives will not change as a result of PBA valuation. However, under PBA valuation, companies will likely need to make or be required to make changes in their governance rules and processes in order to comply with state laws and regulations. The likely changes in these rules and processes for company management and Board of Directors will be addressed in other key issue papers.

3. *Uniformity (state adoption of laws and ongoing oversight)*

The Work Group believes that uniformity is a key to the success of a PBA valuation system. Without efforts to promote uniformity, PBA valuation can increase state variations significantly because it:

- Requires more judgment;
- Comes with additional governance processes (e.g., PBA Review, PBA certificates) and therefore more elements in the valuation process;
- Is a paradigm shift that will require overcoming different learning curves from different states;
- Is complicated and many aspects could cause misunderstanding and confusion, especially when multiple states are involved and if different states develop different requirements.

The uniformity in states' adoption of laws and regulations may be achieved by:

- Modifying state laws/regulations to mandate compliance with a "manual" that functions like the current RBC instructions (i.e., a PBA Manual).
- Modifying the accreditation standards that will depend on unmodified adoption versus the "at least as stringent" approach used today.

The uniformity in states' ongoing oversight functions (such as filing, review, certificates of valuation, state exams etc.) may be achieved in a number of ways:

- State-by-state: But additional guidelines need to be developed to enable more consistent oversight.
- By domiciliary state: Relying on domiciliary state and the PBA Reviewer without modification.
- Through a centralized "office": A central "valuation office" to review the PBA valuation; the centralized "office" could be further separated by inter-state/zone.
- Other examples of variations:
    - A central "office" to develop/review/state exam standards and to provide technical support

- Approaches can also vary by the size of the company: e.g., domiciliary approach for small companies, “zone” approach for regional/medium size companies and a “central” approach for large companies.
- Approaches can vary for “hot” lines of businesses.

The Work Group is still in the process of analyzing various approaches and the details of how they may work.

4. *Company Board of Directors*

The Work Group recommends that the Board of Directors, or a committee thereof, should have the following responsibilities for all reserves (both PBA and non-PBA reserve):

- To continue to appoint a qualified actuary (Appointed Actuary) to render an actuarial opinion on the company’s reserves, including those reserves established using a PBA approach.
- To hold the Appointed Actuary accountable for adhering to the letter and the spirit of legal, regulatory, and professional reserve valuation requirements.
- To assure that the Appointed Actuary has the necessary resources to fulfill his or her responsibilities.
- To receive directly from the Appointed Actuary reports on the adequacy of the company’s reserves, and to review the reserve levels of the company, in light of the Board of Director’s knowledge and understanding of the company’s markets, products and risks. These reports should contain a description of the methods and assumptions used to establish the company’s reserves, including a description of how these methods and assumptions are similar to, or different from, other reports that the Board of Directors receives on the company’s risks.
- To oversee an effective management control structure over the process used to establish reserves.

There are additional responsibilities under the PBA valuation (as recommended in the PBA Review section above):
- To hire and discharge the PBA Reviewer.
- To receive directly, and to review, the report of the PBA Reviewer on his/her evaluation of the appropriateness of the reserve valuation that has been performed.
- To have an ongoing dialogue with the PBA Reviewer and a role in resolving material differences between the PBA Reviewer and PBA actuary.

12. *Benchmarking to other related governance models and processes*

The Work Group reviewed governance models and processes by:
- Moody’s Corporate Governance
- SEC’s (Securities and Exchange Commission) US Financial Reporting of A Principles-Based Accounting System
- IAIS (International Association of Insurance Supervisors)

The Work Group also plans to review the governance models and processes from:
- Basel II: International Convergence of Capital Measurement and Capital Standards: a Revised Framework
- OECD’s (Organization for Economic Co-operation and Development) Guidelines for Insurers’ Governance
- NAIC’s Risk-Focused Surveillance Framework
- Governance system in Canada and Australia for insurers

Detail of Analysis

The Work Group has prepared a detailed analysis to document the bases for the recommendations above. This detailed analysis is still in draft form and will evolve but may be useful for further discussions and thought processes. It is not attached as a part of this report but may be available for the June NAIC meeting or shortly thereafter.

AMERICAN ACADEMY *of* ACTUARIES

Background and Analysis Supporting the
Report on PBA Review and Other Governance Issues of Principles-based Valuation
From the American Academy of Actuaries' Principle-based Review and Governance Work Group

Presented to the National Association of Insurance Commissioners'
Life and Health Actuarial Task Force

Washington DC – June 2006

Principles-based Review and Governance Work Group

Shirley Hwei-Chung Shao, F.S.A., M.A.A.A., Chairperson

Tom Bakos, F.S.A., M.A.A.A.
Michael Boerner, A.S.A., M.A.A.A.
Larry Bruning, F.S.A., M.A.A.A.
Cecil Bykerk, F.S.A., F.C.A., M.A.A.A.
Katie Campbell, 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.
Helen Galt, F.S.A., M.A.A.A.
Frank Irish, F.S.A., M.A.A.A.
Kerry Krantz, F.S.A., M.A.A.A.
Barbara Lautzenheiser, F.S.A., F.C.A., M.A.A.A.
Michael Mayberry, F.S.A., M.A.A.A.
Bob Meilander, F.S.A., M.A.A.A.
Dave Neve, F.S.A., M.A.A.A.
Tom Rhodes, F.S.A., F.C.A., M.A.A.A.
Link Richardson, F.S.A., M.A.A.A.
John Rink, F.S.A., M.A.A.A.
Dave Sandberg, F.S.A., M.A.A.A.
Kristin Schaefer, A.S.A., M.A.A.A.
Naryan Shankar F.S.A., M.A.A.A
Sheldon Summers , F.S.A., M.A.A.A.

The Principles-based Review and Governance Work Group would also like to acknowledge the work of Deborah Whitmore, CPA.

Background:
Below is the background and analysis used to support the Report on PBA Review and Other Governance Issues of Principles-based Valuation from the American Academy of Actuaries' Principle-based Review and Governance Work Group that can be found in the May 2006 Life and Health Actuarial Subscription (Attachment 14, pg. 98).

Principles-based Review

Detailed Analysis

The Work Group identified 18 key issues to be considered and evaluated in developing the structure and characteristics of a PBA Review process. These are:

0. Need for a PBA Review
1. Differences between a PBA Review and other forms of review
2. Hiring the PBA Reviewer
3. Scope of a PBA Review
4. Audience and objectives of a PBA Review
5. Timing/Frequency of a PBA Review (pre- or post-Release)
6. Independence of PBA Reviewer
7. Qualifications of the PBA Reviewer
8. Reporting/working relationships of PBA Reviewer
9. Effect on Valuation Actuary work
10. Regulator review and use of PBA Review
11. Changes in State Examination and External Audit processes (addressed by other groups)
12. Legal protection of PBA Reviewer (addressed by other group)
13. PBA Review opinion/report format
14. Required changes in Standard Valuation Law, ASOPs, etc. (not addressed as of date of this report)
15. Application: in force vs. new business (addressed by another group – needs to be consistent with the PBA valuation)
16. Benchmarking to other related foreign professional processes
17. Application to capital as well as reserves (this paper focuses on reserves, the Work Group will consider if applicable for risk-based capital later)

PBA Review

Key Issue #0: IS there a need for an external review of the PBA valuation?

This key issue analysis addresses the need for a PBA Review to be included in the PBA Valuation process.

Principles:
PBA valuation requires more actuarial judgment than the current statutory valuation framework.

Assumptions/Interdependence:
- "Peer Review" is a well-established practice in actuarial work.
- A PBA Valuation is a complicated process with significant impact.
- An external PBA Review will add value to a PBA Valuation for the Company and Regulators.

Conclusions/Recommendations:
A PBA Review should be a required part of a PBA Valuation since its benefits out-weigh the costs.

Analysis
Our analysis resulted in a listing of pros and cons regarding the value of a PBA Review as follows:

Pro:

- Provides affirmation and comfort surrounding the actuarial judgment needed for certain elements in the PBA valuation
- Narrows the range of practices and thus increases consistency across companies
- Reinforces the PBA valuation process, covering elements from better documentation to disciplines in the selection of assumptions
- Reassures the users of the work product
- Enhances actuaries' collective and individual professionalism
- Can be expanded to the process review (e.g., look at how assumptions were derived)
- Pre-release can provide review before reporting
- Can perform in between the state exam cycle and therefore provide assurance between exams
- Provides valuable information to assist the financial analyses for states
- Facilitates state exam and Company external audit if the PBA Review is used as the starting point for these processes

Con:

- Additional cost
- Additional work for the Company which could complicate a busy year-end
- Review of actuarial judgment can be challenging due to its lack of black-and white rules
- Potential overlapping with state exam and external audit from the auditors

PBA Review

Key Issue #1: Differences between a PBA Review and other forms of review

Actuaries are involved with various types of review processes in their work. These can be fit into several broad categories such as: Peer Review; Second Opinion; Audit; and Examination.

Variations on all of these categories exist. Different individuals may have distinctly different views on what these broad terms mean. The following is intended as a baseline description of the underlying unique characteristics of each of these four highlighted review processes:

Principles:

- The review of PBA valuation will have the attributes of the existing review forms [Note: won't it have attributes of internal review forms?]

Assumptions/Interdependence

- PBA Review requires the scope as recommended in Key Issue #3
- The objectives of the PBA Review is as recommended in Key Issue #4

Conclusions/Recommendations

The scope and purpose of the external PBA valuation review is a different type of process. For this reason, it is advisable that the process be given a unique name and that is to be specifically defined. The current working name for the proposed review process is – ***PBA Review***.

Analysis

The Work Group analyzed various forms of external reviews: peer review, second opinion, audit, and state exam

Peer Review: An evaluation of a professional work product (or one or more portions of a professional work product) conducted by a second, qualified professional who is considered a peer of the preparing actuary.

The above definition is taken from the American Academy of Actuaries' Discussion Paper on Peer Review. For purposes of this paper, the actuary performing the review is called the *peer reviewer*.

The essential features of a *peer review* are:

- The peer reviewer's client is the preparing actuary.
- The preparing actuary takes full responsibility for the work product being reviewed.
- The peer reviewer's independence in terms of supervisory relationship or other conflicts is desirable.
- The preparing actuary's client may be unaware of the peer review, is unlikely to have requested it, and is unlikely to have seen or reviewed the results of the peer review. In addition, the client may not have had any influence on selecting the peer reviewer or any knowledge concerning her/him.
- A peer review is essentially informal, in that no written report may be prepared and no documentation is necessarily kept.
- A peer review is not a mandatory requirement of the actuarial profession; however, it may be made a mandatory part of a business or firm's work process.
- A peer review is limited by the nature of the work product being reviewed, that is, the range and scope of the peer review is defined by the range and scope of the original work assignment and, generally, relates to issues and concerns the preparing actuary should have had in carrying out the assignment being reviewed.

A peer review is an evaluation of a pre-release version of the preparing actuary's work product in order to have a potential influence on the final work product released to a client. Or, alternatively, a post release peer review serves as a quality check, which may be useful in future similar work assignments.

The purpose of a peer review is to assure the preparing actuary of the quality of the work product.

Second Opinion: A review, analysis, or report of a professional work product prepared by a second professional independently retained by a principal.

This definition is also taken from the American Academy of Actuaries' Discussion Paper on Peer Review. For this analysis, the Work Group called the actuary providing a second opinion the *second opinion actuary*.

The essential features of a *second opinion* are:

- The second opinion actuary's client is the original principal, that is, the client of the actuary whose work is being reviewed.
- The second opinion actuary takes full responsibility for his or her work product without diminishing the preparing actuary's responsibility for his or her original work product.
- The second opinion actuary typically would be totally independent of the preparing actuary.
- The original principal chooses the second opinion actuary and, therefore, would be aware of his or her existence and have access to the second opinion report.
- A second opinion results in a formal report subject to all actuarial standards of practice, code, and qualification standards.
- A second opinion is not mandatory, but discretionary on the part of the original principal.
- A second opinion is limited by the assignment given by the original principal, which may or may not include all aspects of the work product on which the second opinion is based.

A second opinion typically evaluates a final version of the preparing actuary's work product or is done entirely independent of the preparing actuary. The preparing actuary may or may not be aware of the second opinion actuary or even see the second opinion report. However, the second opinion actuary has obligations under Precept 10 of the Code of Professional Conduct when another actuary, the preparing actuary, is involved, particularly where differences exist.

The purpose of a second opinion is to assure the original principal that it is getting good advice.

Audit: A systematic, independent, objective examination of financial records, procedures, activities, and the investigation of other evidence to determine the propriety, compliance, and adequacy of programs, systems, and operations and recommend changes, or other actions for management and operating officials to consider.

Typically, an audit is not a term used to refer to a review of opinion. More typically, an audit is a function designed to assure compliance with a more or less well defined and objective set of standards and procedures associated with some work activity. An actuarial work product that produced an opinion would be subject to audit only to the extent that compliance with all of the steps required for forming the opinion was met or not met. However, the steps performed in actually calculating the reserve are subject to audit.

The individual providing an audit is referred to as an auditor and, with respect to an actuarial work product, need not be a peer of the preparing actuary.

The essential features of an audit are:

- The auditor's client may be the original principal, that is, the client or the employer of the actuary whose work is being reviewed, or a third party with a broad regulatory interest in the actuarial work product.
- The auditor takes full responsibility for the audit work product but this may not be individual responsibility as an audit may involve a team of auditors.
- The auditor is totally independent of the preparing actuary and may not be an actuary at all – depending on the work product being audited and the nature or scope of the audit.
- The original principal or third party who chooses the auditor would be aware of his or her existence and have access to the audit report.
- An audit results in a formal report subject to all standards of practice and other professional requirements of the auditor's profession.
- An audit may or may not be mandatory.
- An audit most often results in a different type of report than the work product being reviewed, that is, an audit tends to be a review of process rather than result.

An audit, typically, assures the requesting party that a specific and detailed process, defined by some independent regulatory body, has been followed in the preparation of a work product, actuarial or otherwise.

The purpose of an audit is to assure the original principal and, perhaps, an independent regulatory body that appropriate objective processes were observed, applied, or used in the creation of a work product.

Examination: A review or testing procedure designed to determine whether or not minimum standards have been met in the preparation of a work product.

Like an audit, an examination is not a term usually applied to the review of an opinion. More typically, an examination is a function designed to assure compliance with a more or less well defined and objective set of standards and procedures established by a regulatory or other type of authority.

Like an audit, an actuarial work product that produced an opinion would be subject to examination only to the extent that compliance with all of the steps required for forming the opinion was met or not met. However, the steps performed in actually calculating the reserve are subject to audit.

The individual performing an examination is referred to as an examiner and, with respect to an actuarial work product, need not be a peer of the preparing actuary.

The essential features of an examination are:

- The examiner's client is most likely to be a regulatory or other authority with an indirect interest in the actuarial work product.
- The examiner takes full responsibility for the examination work product.
- The examiner is totally independent of the preparing actuary and may not be an actuary at all – depending on the work product being examined and the nature or scope of the examination.
- The regulatory or other authority chooses the examiner who may be an employee of the authority. The examination report is often made available to the preparing actuary.
- An examination typically results in a formal report subject to standards of law or regulation and professional standards, if appropriate.
- An examination is, typically, a mandatory review step in areas where it is applied.
- An examination most often results in a different type of report than the work product being reviewed, that is, an examination tends to be a review of process for compliance rather than result.

An examination, typically, assures the requesting party which is a regulatory or other type of authority that its specific and detailed requirements have been met or followed in the preparation of a work product, actuarial or otherwise.

The purpose of an examination is to assure the regulatory or other authority that its minimum standards or processes have been observed in the preparation of an actuarial work product.

The above analysis on the potential differences between peer review, second opinion, audit and examination is also summarized in a table format below.

Summary Table

	Peer Review	Second Opinion	Audit	Examination
Client of Reviewing Actuary	Preparing actuary	Original principal	Original Principal with some third party reliance possible	Some Independent Regulatory or other Authority
Purpose	Help preparing actuary assure quality of his/her original work product being peer reviewed.	Give original principal benefit of a second review.	Assure original principal or interested third party that original work product satisfies, typically, prescribed financial standards.	Assure regulatory authority that applicable laws/regulations have been observed and public interest has been served.
New Work Product	None, or informal verbal or written report to preparing actuary	Second Opinion	Audit Report	Examination Report
Type of Report	Typically none - but preparing actuary's report might be affected by peer review process	Report similar to preparing actuary's report depending upon scope defined by original principal	A report on process compliance with some set of objective standards	A report on compliance with regulatory or other authority standards
Ultimate Responsibility for work products	Preparing actuary is responsible to client for original work product	Preparing actuary for original work product Second opinion actuary for second opinion	Preparing actuary for original work product Auditor for audit report	Preparing actuary for original work product Examiner for examination report
Independence	Perhaps	Usually required by original principal	Required	Required
Who Chooses Reviewer	Preparing Actuary	Original principal	Usually original principal	Independent authority responsible for examination
Formal/Informal	Usually Informal	Formal / Written	Formal / Written	Formal / Written
Mandatory	No	No	Probably	Yes
Timing	Usually, concurrent with preparation of original work product	Typically after or entirely independent of preparation of original work product	After preparation of original work product	After preparation of original work product
Qualifications	Peer of preparing actuary Qualified to do original work	Peer of preparing actuary Qualified to do original work	Qualified in relevant audit procedures	Qualified or certified by regulatory agency for whom examination is being done
Standards Applied	Actuarial Code, ASOPs, and generally accepted actuarial practice	Actuarial Code, ASOPs, and generally accepted actuarial practice	External Audit guidelines e.g., from the FASB	External standards e.g., from the NAIC Examiners Handbook

PBA Review
Key Issue #2: Who Hires the PBA Reviewer

This issue addresses who should hire the PBA Reviewer and the potential pros and cons of this hiring decision.

Principles:

- Independence: the PBA Reviewer should not review her/his own work and should be free of conflicts of interest

Assumptions/Interdependence: These assumptions are applied regardless of who hires:

- PBA Reviewer will comply with the relevant laws and regulations. For example, she/he will prepare a PBA opinion supported by PBA reports for the Regulators and Company. (See PBA Review Key Issue #8.)
- PBA Reviewer will meet defined qualifications and follow the relevant actuarial standards (e.g., no conflict of interests). (See PBA Review Key Issue # 7.)
- PBA Review can be done by the external auditors if the Company hires. (See PBA Review Issue #6.)

Conclusions/Recommendations:

- The hiring decision will affect the governance structure, the role of all parties involved, work and communication flow, final product, and public disclosure.
- The Work Group recommends that the Company hires the PBA Reviewer because:
  - Several elements, e.g., accessibility to the Company Board, larger pool of PBA Reviewers, are key to the success of a PBA Review and can only be accomplished if the Company hires.
  - Several elements, e.g., independence, collegial environment and trust, key to the success of a PBA Review are independent of the hiring decision.
  - It is consistent with the similar PBA Review in Canada and Australia, as well as the IAIS governance approach, which encourages the Company to be more involved in doing the right thing.
- The Work Group recommends that the Regulator receive timely written notice of the hiring decision.
- The Work Group further recommends that the Company have the right to remove a peer reviewer. When a peer reviewer is removed, the Company should notify the Regulator of the termination of the reviewer and whether there have been professional disagreements with the reviewer. In addition, the Company would have to request that the former reviewer provide a letter stating whether he or she agrees with the statements made in the communication to the Regulator by the Company.
- The Work Group recommends that the Company's Board of Directors or its designee (rather than Company management) hires or discharges the PBA Reviewer.

Analysis

This analysis has two parts: Those elements in the PBA Review system that are independent of the hiring decision and those elements that may be affected by the hiring decision.

Independent of Who Hires

The following are several critical elements of a PBA Review system that on the surface may seem to be affected by the hiring decision. But, the Work Group has concluded that they are independent of the hiring decision:

- **Independence:** The PBA Reviewer needs to maintain a healthy skepticism in doing the review and be free of conflicts of interest.
  The PBA Reviewer must be independent of both the Company and the Regulator regardless of who hires her/him. Bias either way will not lead to the results that should occur; i.e., a PBA Review that can be trusted and relied upon. Actuarial professionalism also requires actuaries to approach each assignment considering conflicts or apparent conflicts.
- **Collegial review environment**: The Work Group believes, similar to the conclusion made regarding the Canadian's PBA Review system, that a collegial environment is a key element to the success to a PBA Review system. The PBA Reviewer and Company actuaries must work in a cooperative and professional manner. Open dialogues with give-and-take will improve the quality of the final product and make the PBA Review more meaningful. This environment is important regardless of who hires the PBA Reviewer, but it may take the reviewer longer to reach this ideal environment if he or she is hired by the Regulator.
- **Trust:** Either party – Regulator or Company – would likely choose reviewers based on work familiarity and existing working relationship, enhancing trust. But, trust should come from agreement of both parties that the person is qualified and independent. Trust is built over time. As a PBA Reviewer works with the Regulator and the Company over time, she/he will gain or lose trust of both -- regardless of who hired.

***Depending on Who Hires*:**
The following analysis provides some insight into advantages that may be associated with either client assignment approach. Generally, the advantages on one side can be turned into disadvantages for the other side.

State Insurance Department being the client: The PBA Reviewer is viewed as an extended arm of the Regulator.

- **Direct Control:** The Regulator could have control of the process and direct input on the PBA Reviewer's work product.
- **More Reliance/Less Duplication in the State Exam Process (every 3-5 years)**: The Regulator may rely heavily on the previous PBA Reviews in its state examination process. The Regulator can always rely on the PBA Review regardless of who hired the reviewer but may have more trust in, and therefore rely more on the PBA Reviews if the reviewer was hired by the Regulator.
- **Protection:** The PBA Reviewer may be more protected against legal action (perhaps limited, e.g., no protection for malfeasance) if the Regulator is responsible for selecting the reviewer through the extension of "sovereign immunity."

Insurance Company (Company) being the client: The relationship between the Company and the PBA Reviewer will be similar to that between the external auditor and the Company today.

- **Accessibility to the Company's Board**: One key success element to the PBA system is the Company's Board involvement. If the Company hires the PBA Reviewer, this involvement can be more easily facilitated. In fact, it is most effective if the Board, not Company management, hires the PBA Reviewer. If the Regulator hires, while the PBA Opinion/supporting reports can still be sent to the Board, Regulators will most likely not allow (and/or will feel uncomfortable about) ongoing dialogue between the PBA Reviewer and the Board. This restriction can significantly affect the sound governance of the PBA system.
- **Greater Pool of Quality Reviewers**: One critical issue for the PBA Review system is whether there will be a large pool of high quality reviewers to choose from.

  The PBA Reviewer may be more willing to take assignments from companies rather than from Regulators because of restrictions placed on the hiring process by the Regulator (e.g., the RFP hiring process, conditions placed upon the engagement by the Regulator, etc.). These restrictions could affect the quality and quantity of actuaries available to perform PBA Reviews. Having the Company hire the PBA Reviewer could eliminate these restrictions.

  Today, the Regulator would not hire the Company's auditor to perform a state exam for the same Company. If this restriction is extended to the PBA Review, the pool may be further reduced. If the Company hires, an actuary employed by its external auditor can perform the PBA Review as long as its Board (and the external auditor) approves the hiring.
- **Greater Reliance/Less Duplication in Company Audit (Annually)**: It is expected that the Company's financial statement audit under PBA will encompass actuarial judgment. Therefore, there will be an overlap between the audit and the PBA Review. The cost of this overlap can be substantially reduced if the Company is able to hire an actuary employed by its auditor to perform the PBA Review.
- **Fewer Burdens for the Regulator:** If the Company hires, the Regulator will not need to choose reviewers for each company every year. Choosing reviewers would be particularly challenging for those Regulators with limited resources. This also eliminates the need for Regulators to agree on the same PBA Reviewers (if non-domestic Regulators don't agree with the domestic Regulator.)
- **Ownership**: Having the Company hire the PBA Reviewer could encourage the concept of a PBA Review being an "investment" in better results for the Company, rather than a "necessity". This perception potentially could make the PBA valuation better and better over time, to obtain a greater return on the "investment".
- **Consistent with IAIS, Canada and Australia (P&C)**: Both Canada and Australia require the Company to hire the PBA Reviewer. The IAIS's new statutory principles also provide the Company management the opportunity to establish a sound risk management and governance system while providing required reports to the Regulators.
- **Public Disclosure**: In Key Issues #3 and #13, the Work Group recommends that an opinion on the PBA valuation be formed by the PBA Reviewer. If the Regulator hires, such an opinion from the PBA Reviewer may not be appropriate or necessary since the Regulator is already responsible for supervising all valuation work.

<u>**Many Options in Between**</u>
It is important that the hiring process be such that both the Regulator and the Company are pleased with the hire, regardless of who actually does it. The following are some potential "options in between" the above two approaches:

- Hiring:
  - Company hires the reviewer but Regulator has a veto power. This is how the Canadian PBA Review works.

- Independent Board of Directors approves reviewer recommended by Company or Appointed Actuary; also this reviewer reports back to the Board. This is how the external auditor is hired in the US.

- Termination:
  - Company can only terminate the reviewer with the consent of the Regulator;
  - Company needs to notify the Regulator of the fact and reasons if the reviewer resigns or declines to stand for reappointment;
  - The reviewer needs to notify the Regulator of the fact and reasons if she/he resigns or declines to stand for reappointment. This is how the termination of the Appointed Actuary works today in many states.
  - Company needs to notify the Regulator of the termination of the reviewer and whether there have been professional disagreements with the reviewer. In addition, the Company would have to request that the former reviewer provide a letter stating whether he or she agrees with the statements made in the communication to the Regulator by the Company. This is the requirement for terminating the auditor in the US.
  - Regulator can require termination of the PBA Reviewer for cause.

Some of the above options can be used in combination as well.

Benchmark

- Canada: Company hires
- Australia (P&C only): Company hires

PBA Review
Key Issue #3: What is the scope of the PBA Review?

This Key Issue addresses what should be included and excluded in a PBA Review and the level of review needed.

Principles

- PBA Review will evaluate the PBA Actuary's work
- PBA Review will focus on actuarial judgment (subjectivity) rather than auditing

Assumptions/Interdependence

Conclusions/Recommendations

The following is recommended to be a reasonable scope for a PBA Review:

- **Evaluate whether or not all material risks are identified**
- **Evaluate the appropriateness of methods**: Ensure that the risks of the underlying contracts are appropriately reflected/measured. Examples:
  - Use of stochastic process in addition to deterministic or just deterministic
  - All relevant risks are measured by method or methods used
- **Evaluate the appropriateness of the selection of assumptions** (note assumptions include both base assumptions and risk margins)
  - Whether Company experience is supportable? This is based on the availability of relevant experience and its degree of credibility.
  - Whether assumptions are consistent with other processes in the Company?
  - Whether the set of assumptions are internally consistent
  - Whether assumptions have been updated frequently?
  - Whether there is a "feedback loop"?
- **Evaluate the modeling process: make sure the modeling reflects the intended methods and assumptions** (may be via sample testing), cell constructions, fund mapping, stochastic generators. This should focus on the actuarial judgment element rather than validating the model.
- **Evaluate whether or not the PBA Actuary complied with regulatory requirements**
- **Evaluate whether or not appropriate documentation is in place to support the above**: For example, review if support for important assumptions is in place. Ensure appropriate disclosures and caveats.

The following are not recommended to be included in the PBA Review:

- Check computations
- Check the control process
- Validation of the model
- Whether reserves are set at the right level and are adequate to cover future policyholder benefits and expenses.

In general, the PBA Reviewer needs to opine on whether the valuation was done properly.

- To the extent the PBA Actuary's documentation is sufficient, that documentation may be all that needs to be reviewed
- Where the documentation is insufficient, PBA Reviewer may have to go deeper:
  - More documentation may be needed (e.g., product descriptions, studies documentation, etc.)
  - Discussion with contributors (e.g., asset cash flows, studies, etc.)
- To the extent the PBA Actuary relies on others, either state exam or external audit may pursue further [does this mean that the PBA Reviewer doesn't have to review the reliance?]

Analysis

What is the range of possible PBA Reviews and the recommended approach?

A range of possible degrees of review thoroughness exists under the scope recommended above. In the following table, the Work Group provides three levels of review options for the various elements of review, along with a recommendation for each.

Content of PBA Review	**Level #1**	**Level #2**	**Level #3**	**Recommendation**
Definition of levels	***No new work*** **-** Rely on the PBA documentation and peer reviewer's knowledge	***Analysis*** **-** Review all relevant material and studies used in support of the PBA Actuary's work	***Repeat Work*** **-** Form independent opinion by reliance on raw data	Level/degree of review may vary by content.
Material risks are identified Goal: to get a good understanding of the underlying risks of the contracts	• Review PBA documentation for reasonableness • Documentation will contain product description at a high-level.	• Review risk drivers used for other management purposes (e.g., pricing, planning, RM report).	• Review contracts, sales materials to derive risk drivers.	• #1 if product description is clear and sufficient and/or risks are not unusual • May go to #3 for unusual and/or unclear risks • No need to do #2 • Actuarial Standards Board should consider whether ASOPs are needed to give guidance about how the reviewer should be looking at this to arrive at the risks (e.g., all 3 levels) and documentation needed.
Appropriate Methods (Goal: Risks underlying the contracts are appropriately reflected. Also, methods (e.g., deterministic or stochastic) comply with regulations and actuarial standards)	• Review the PBA doc and regulations (CFT vs. GPV; deterministic vs. stochastic)	• Same as #1	• Derive appropriate methods and compare them to those used by the PBA Actuary	• Same as #1 • Current LRWG has a "greater of" rule The only flexibility is whether stochastic is needed • ASOP should not have brightline rules, but it can give a list of considerations
Selection of assumptions (including margins) if Company experience is used (No subjectivity for prescribed assumptions)	• Review PBA doc for the bases of assumptions and margins	• Review the results of any experience studies and how they are applied to PBA assumptions, margin. • Review the process of the assumptions selections (e.g., frequency of the experience studies, feedback loop)	• Review the construction of experience studies • Review consistency between PBA assumptions and assumptions used for other management purposes	• Same #1, #2 and part 2 of #3 • PBA Actuary should do this first and document the process of review and how he/she applied the experience to statutory valuation (may need additional ASOP as to the role, reliance) • PBA Reviewer will review the documentation from the PBA Actuary and decide whether that

				review is sufficient • PBA Actuary should be able to rely on others' studies (mortality, expenses, investment) for reasonableness • PBA Actuary should document how he/she developed future assumptions (e.g., adjustments to the experience studies' results.) • #3 (part 2): valuation should strive for consistency.
Modeling Process (Goal: modeling, cell construction and fund mapping reflect intended methods, assumptions and inforce)	• Review PBA doc for high-level description on the modeling	• Deterministic: e.g., review the cash flow components to ensure each risk is included • Stochastic: e.g., review the choice of generators. Review how the cells and fund mapping are constructed/validated; calibration	• Sample test modeling results • Review the controls of the modeling processes	• #1 unless issues arise • The PBA Actuary documents model validation and processes. The PBA Review should determine whether the PBA Actuary has done enough work in the modeling process. • The model validation and independent testing should be done by the auditors rather than the PBA reviewer
Overall level of reserves				• The PBA reviewer will not be making a statement of the overall adequacy of reserves. This is because the adequacy of the overall level of reserves is considered as part of the Statement of Actuarial Opinion for the entire Company and not through the PBA process.

Documentation	• Determine whether the documentation is complete.	• Comment on appropriate descriptions Components of the PBA Actuary's work falling under the scope of the review are within the range of acceptable actuarial practice and in compliance with ASOPs, law, and regulation.	• Comment on wording, structures etc.	• #1, #2 and #3; should comment on the quality of documentation since the PBA reviewer relies heavily on the documentation from the PBA Actuary. • ASOP 41: PBA Reviewer must have good enough documentation to sign off the statement.
PBA Review Opinion	Components of the PBA Actuary's work falling under the scope of the review are within the range of acceptable actuarial practice and in compliance with ASOPs, law, and regulation.	#1 plus opinion states that, overall, the reserve level is appropriate (capture all material risks, methods reflect risks, reasonable assumptions, methods, and processes.)	#2 plus the PBA Reviewer has reviewed the valuation process (e.g., data reconciliation, process in deriving assumptions, risks, modeling process, sample result)	• #1 – Sample language: I have reviewed the PBA valuation performed by [PBA Actuary] and in my opinion: – All material risks are captured, – the methods used are appropriate, – the models used are reasonable for the purpose, – the assumptions used are supportable, – the margins in the reserves are supportable, and – the actuary has followed all relevant laws, regulations, AGs, and ASOPs in doing this work.
Disclaimer in the PBA Review Opinion	NONE – it should be understood that PBA Review does not guarantee solvency.	YES – States PBA Review opinion is consistent with statutory requirements and accepted actuarial practice.	YES – Specifically states that PBA Review does not guarantee solvency or adequacy of reserves only that for the components reviewed, acceptable actuarial practice has been followed.	No need to have a disclaimer because solvency is outside the scope of the review.

PBA Review
Key Issue #4: Audience and objectives of a PBA Review

This issue addresses:
- What are the objectives of the PBA Review?
- Who is the audience?
- What information should be given to which audience? Confidentiality?

Principles
- The PBA Reviewer can serve multiple audiences without compromising his or her opinion
- The objectives of all audiences of the PBA valuation are the same

Assumptions/Interdependence
- Company hires the PBA Reviewer: KI#2

Conclusions
The objectives of a PBA Review are:
- To provide assurance to the PBA valuation:
  - Validate actuarial judgment
  - Confirm compliance
  - Strengthen valuation process
- To promote consistency across Companies
- To provide information for state exams and financial analysis
- Facilitate state exam and/or audit work

Analysis
Who is the audience?
- Regulator
- Company Management
  - PBA Actuary/Appointed Actuary
  - Board/Audit Committee
  - Other (e.g., pricing, planning, risk management, GAAP reporting)
- External auditor
- Rating Agency
- Public, perhaps (public includes shareholders and policyholders)

What are the objectives of a PBA Review? How will PBA Reviewer fit in?
- Provide assurance to the Regulators that the valuation complies with laws and regulations
- Promote consistency across Companies: The PBA Review can promote consistency in the actuarial practices and/or narrow practices
- Validate actuarial judgment: The PBA Review can assure Regulators that the actuarial judgment applied by the PBA Actuary is reasonable
- Confirm compliance with law, regulation, AGs and ASOPs: In theory, this is not unique to PBA
- Strengthen the valuation processes: e.g., there is a reasonable process in coming up with experience studies, and applying experience studies to the statutory reserves.
- Perform reviews between the state exams: The PBA Review may possibly review "something" on an annual basis.
- May facilitate state exam process and provides information for the financial analysis done by the state: Currently, state examinations make use of the statutory audit work. It can be the same case for the PBA Review. The PBA Review work and its supporting documentation can be used, at a minimum, to be the starting point of the state exam.
- May facilitate external auditor's work: The auditor may use the PBA review work as the starting point of the audit. However, the auditor cannot simply accept the work of the PBA Reviewer; the auditor must establish a basis for relying on the PBA Reviewer. Furthermore, note that while financial statement audits encompass elements of actuarial judgment, the auditor is focused on the financial statements and would not necessarily care whether each assumption is "right" as long as overall they produce the "right" numbers.

Confidentiality
- PBA Review Opinion: The Work Group is still evaluating if this opinion should be public to all audiences. Both the Canadian and Australian systems rely on the Appointed Actuary to provide public opinions, not the PBA

Reviewer. The Work Group recommends a separate PBA Review opinion, however, which will cover the scope of the PBA Review (specific language may vary):
- All material risks are captured,
- The methods used are appropriate*,
- The models used are reasonable* for the purpose,
- The assumptions used are supportable*,
- The margins in the reserves are supportable*, and
- The actuary has followed all relevant laws, regulations, AGs, and ASOPs in doing this work.

  * exact term (e.g., appropriate, reasonable) will be developed later

- PBA Report (if provided): To all audiences above other than public at-large because:
  - Report needs to be used by audience with actuarial expertise
  - May contain confidential Company information
  - The Work Group is still evaluating if there should be a formal report

Benchmark

Canada:
The following is the list of expectations from the Academy's documentation of the Canadian system:

> The report should describe the extent of the work done by the reviewer and his/her conclusions with respect to the AA's compliance with accepted actuarial practice and other OSFI Guidelines and Regulations. The report should include a description of any changes to previously employed methods or assumptions that were made as a result of the review. The report should describe any instances where there is a remaining difference of opinion between the AA and the reviewer
>
> For a Canadian or provincial insurance Company, the reviewer's written report should be made available to the audit committee of the Company's Board of Directors. For a Canadian branch, the report is to be provided to the Chief Agent of OSFI.

PBA Review
Key Issue #5: Timing/Frequency of a PBA Review (pre- or post-Release)

This Key Issue addresses timing in the sense of should PBA Review be a Pre- or a Post- review process and what the work flow may look like.

Before discussing timing and frequency issues, the Work Group used the following definitions:

Pre-Release: Refers to work or analysis of the PBA Actuary's work done by a PBA Reviewer prior to the release by the PBA Actuary of a PBA valuation.

Post-Release: Refers to work or analysis of the PBA Actuary's work done by a PBA Reviewer after the release by the PBA Actuary of a PBA valuation.

Principles

- PBA Reviewer works with the PBA Actuary is parallel fashion and replies heavily on the documentation from the PBA Actuary.

Assumptions/Interdependence

- The Scope of the PBA Review is focused on actuarial judgment (Key Issue #3)
- PBA Review is done on an annual basis based on the year-end PBA Valuation.
- PBA Actuary must complete all PBA valuation and related documentation complete (and released) with the filing of the insurance Company's annual statement (generally, March 1 of the year following the calendar year reporting period).

Conclusions/Recommendations

The Work Group concluded that the PBA Review process would be conducted over a several month period in parallel with the work schedules usually employed by valuation actuaries. The pre-release discussion of issues noted by the PBA Reviewer would allow the PBA Actuary and the PBA Reviewer to resolve any differences in the PBA valuation process being employed in a timely manner.

While most PBA Review work should be completed on a pre-release basis, the Work Group recommends 3/31 be the filing deadline for the PBA Review Opinion. This allows the PBA Reviewer a chance to review the final PBA report, annual statement and any last-minute issues on a post-release basis.

Analysis

Timing

Preparation work generally precedes any year-end valuation.

In a Principles-based Valuation it is likely that the PBA Actuary will have done an analysis and made decisions on the following Principles-based Valuation elements by the end of the third quarter (end of September each year)

- Risk identification
- Identify and decide on appropriate methods for plan groupings
- Select assumptions
- Define modeling approach

➔ **STEP 1**: A PBA Review *pre-release component* would consist of a review of the PBA Actuary's subjective judgment with respect to the above items. The PBA Review analysis necessary to complete this step could be completed (preliminarily, at least) in the 4th quarter, that is, ***pre-release***.

Any preliminary conclusions based on this PBA Review step would be discussed with the PBA Actuary. An attempt to resolve any differences would be made.

The actual valuation process, that is, the application of the methods and models using the selected assumptions, will be performed by the PBA Actuary in the early part of the year (January & February) following the calendar year reporting period. During the first two months it is likely that the PBA Actuary will complete the following activities:

- Applied the models used for valuation
- Calculated reserve levels considered adequate
- Reflected all regulatory requirements

- Significantly completed all documentation

➔ **STEP 2**: A PBA Review *pre-release component* would consist of a review of the PBA Actuary's application of the models used to the business being valued. The PBA Reviewing Actuary would form a preliminary opinion with respect to:

- risk coverage,
- adequacy of assumptions and margins,
- appropriateness of methods,
- use of models,
- compliance with regulations and ASOPs

The PBA Review analysis necessary to complete this step could be completed in January of the year following the calendar year reporting period, that is, ***pre-release***.

Such preliminary opinion would be discussed with the PBA Actuary. An attempt to resolve any differences would be made.

With knowledge of the PBA Review *preliminary opinion* and reflecting any changes deemed necessary by the PBA Actuary, the Principles-based Valuation will be completed and financial statements based on it filed per regulatory requirements. The filing is due at the end of February.

This review would consist of:

- confirmation that actuarial judgments are reflected in the published reserves as previously understood by PBA Reviewer,
- confirmation that any changes agreed to as a result of the preliminary PBA Review discussions were implemented,
- confirmation that documentation adequately describes all processes and assumptions,
- confirmation of compliance with regulations and ASOPs.

➔ **STEP 3**: A PBA Review *post-release component* would consist of a review of the PBA Actuary's final Principles-based reserves as reflected in the insurance Company's annual statutory statement filed with appropriate regulatory authorities. The PBA Reviewer would prepare an opinion as required by law/regulation.

Such opinion would be provided by March 31 in compliance with law and regulation. This one-month lag will give the PBA Reviewer an opportunity to review the final reports and opinion from the PBA Actuary.

Frequency

Generally, a PBA Review will be done annually.

- The annual PBA Review may focus on ***changes*** in the Principles-based Valuation from the prior year.
- The PBA Reviewer is allowed to rely on PBA Reviews from prior years and PBA Actuary documentation from prior years with assurance that it is still relevant.

PBA Review
Key issue #6: Independence of PBA Reviewer actuary

This issue addresses

- Whether internal or external actuary should be used for the PBA Review?
- Whether the auditor (who also performs an audit for the same Company) can be the PBA Reviewer?
- How to ensure independence of the PBA Reviewer?

<u>Principles</u>

- Independence: the PBA Reviewer should avoid reviewing his or her own work

<u>Assumptions/Interdependence</u>

- PBA Reviewer will be hired by the Company: KI#2
- All reviewers are assumed to meet the PBA Review qualifications: KI #7
- Auditing role will evolve in the PBA environment: Very likely to cover actuarial judgment as in the GAAP valuation.

<u>Conclusions/Recommendations</u>

- The Work Group recommends hiring an external actuary for the PBA Review, instead of using an internal actuary. Therefore, the PBA Reviewer may not be an employee of the Company or its affiliates.
- Given our recommendation that the Company hires the PBA Reviewer, both auditing actuaries (those associated with the firm that also perform audits for the same client) and consulting actuaries can perform PBA Reviews.
- For the auditor who is also the PBA Reviewer, there is no independence issue for the auditing actuaries since they are auditing/reviewing the PBA Actuary's PBA work. Therefore, they will not be in the position of auditing their own work.

  According to SOX and the current proposed revisions to the Model Audit Rule, the Board/Audit Committee must also pre-approve any services by the audit firm beyond the scope of the audit. The Work Group also recommends a separate engagement letter to separate out the audit and the PBA Review assignment

  In the case where the auditing actuary also performs the PBA Review, there will be a lot of overlap in the work. However, there are a few tasks unique to the PBA Review that are not covered under the audit:
  - PBA compliance (check compliance as related to PBA)
  - PBA Review Report, PBA Review Opinion
  - PBA Review needs to be more focused on each assumption, rather than financial statement as a whole in the audit.

  If Regulators hire the PBA Reviewer, it is less likely that auditing actuaries can be hired to perform the PBA Review (auditors can't be hired for the state exams today)
- For both auditing/consulting PBA Reviewers, the Work Group recommends these additional requirements to ensure independence. The PBA Reviewer:
  - May not be employed by the same consulting or auditing Company as the Appointed Actuary. The Work Group is still evaluating if this should be extended to any work related to the PBA valuation.
  - May not have been an employee of the Company in the past three years
  - Must not be a shareholder or have a financial investment in the Company (being a policyholder, beneficiary, or insured is acceptable)
  - The Work Group is still evaluating the rotation requirements.

<u>Analysis</u>

The analyses to arrive at the conclusion are focused on four key questions:

1. *How "independent" does the PBA Reviewer need to be?*
   The Work Group recommends using the independence definition from the SEC for actuarial auditing "…It is not appropriate to provide the actuarial valuations for the audit client; however, it is appropriate to advise the client on the appropriate actuarial methods and assumptions that will be used in the actuarial valuations…"

   In addition, the Work Group recommends that the PBA Reviewer
   - May not be employed by the same consulting or auditing Company as the Appointed Actuary. The Work Group is still evaluating if this should be extended to any work related to the PBA valuation.
   - May not have been an employee of the Company in the past three years
   - Must not be a shareholder or have a financial investment in the Company (being a policyholder, beneficiary, or insured is acceptable)

– The Work Group is still evaluating the rotation requirements.

2. *Can auditing actuaries do PBA Reviews for the same Company?*
   Yes, if they are hired by the Company. The above independence definition allows the auditing actuary to review/advise the "subjective" elements of the PBA Review without sacrificing independence. Under SOX, the Company management/ Board needs to approve this assignment.

   The Work Group is less sure if auditing actuaries can be hired by the Regulators for the PBA Review. The Regulators will not hire an auditor to help audit state exams today. If the same restrictions are applied, the auditor may not be hired for the PBA Review. Of course, the Regulators can always allow this for the PBA Review. However, even if permitted, auditors may be concerned about the potential for conflicts and decline to accept such engagements.

3. *Can an internal actuary perform the PBA Review?*
   No, because the Regulators and public will not be comfortable with an internal opinion.

4. *What's the difference between using the auditing actuaries versus consulting actuaries?*
   Very little difference between these two sets of actuaries when it comes to performing the PBA Review work. The auditing actuaries may have an advantage in costs.

Additional analyses on these questions are below:

1. Independence of the PBA Reviewer
   - SEC (full paragraphs attached below): related to services auditing actuaries can provide to audit clients:
     - ⇒ Goal: avoid the auditor auditing his/her own work (independence)
     - ⇒ Can't determine the amounts recorded and/or affect amounts recorded. It is not appropriate to provide the actuarial valuations for the audit client.
     - ⇒ Can assist in understanding the methods, models, assumptions, and inputs used in computing an amount. It is appropriate to advise the client on the appropriate actuarial methods and assumptions that will be used in the actuarial valuations.
   - Same standard as the SEC? Yes, it seems reasonable to be as strict as SEC on the limitations on scope of services for auditors. The Work Group had a lot of discussions on this. The main concern was whether the back-and forth conversations between the Appointed Actuary/Actuary and the PBA Reviewer will be interpreted as the PBA Reviewer doing the valuations for the Company and then, in essence, reviewing his/her own work later.

   The Work Group concluded that the Company is the owner of the valuation and the Appointed Actuary will provide an independent opinion on it. The PBA Reviewer will also provide a separate independent opinion. While the two parties may be influencing each other in arriving at their separate opinions that process does not necessarily result in reviewing one's own work.

2. Auditing Actuary as the PBA Reviewer?
   According to the independence definitions above, it seems like the auditing actuaries can also be the PBA Reviewers.

   The auditors' auditing functions are likely to change under the PBA environment to cover both actuarial judgment and the statutory auditing it has been doing (e.g., recalculation, date reconciliation). In other words, the auditors will likely expand their functions into the actuarial judgment similar to what they do with the GAAP valuation today.

   If the Company hires the PBA Reviewer, it may have some internal guidelines to avoid conflicts of interest in hiring their own auditors. The Company Board (who is the body that hires the auditor) generally must approve any work to be done by the Company's external auditor.

   If the Regulator hires the PBA Reviewers, under today's environment, it's not clear if the auditing actuaries can also be the PBA Reviewers. The Regulators are normally looking for someone independent of the Company. For example, the auditors would never be hired to assist the state in a regulatory exam of an audit client. Of course, the Regulators can always waive this "independence" requirement for the PBA Review.

3. No additional analysis.

4. Difference between Consulting Actuaries and Auditing Actuaries: Three groups of actuaries that may be qualified to do an independent PBA Review:

   - Internal actuary: This means that the PBA Reviewer and the Actuary work in the same Company. The advantages are that the PBA Reviewer knows the Company well, can work quicker (on site) and is less costly. The disadvantage is that the PBA Reviewer may be seen as not independent. The Work Group thinks the disadvantages outweighs the advantages and therefore don't recommend this option.
   - Consulting actuaries (CA): These could include actuaries in the consulting firms and those in the auditing firms that don't audit the clients under the PBA Review
   - Auditing actuaries (AA): The actuaries perform <u>both as the auditor and the PBA Reviewer to the same client</u>. The following assumes that the AA is hired by the Company, rather than by the Regulator.

   Based on the detailed analyses below, it seems there is little difference between hiring CA or AA when it comes to performing the tasks under the PBA Review. The AA may have a cost advantage over CA since, in theory, AA already performs a lot of the PBA Review work under the audit. However, there will be a few tasks unique to the PBA Review that are different than audit (assuming the new audit role will involve actuarial judgment.)

   - PBA compliance (check compliance as related to PBA)
   - PBA Review Report, PBA Opinion
   - PBA engagement contract/letter
   - PBA Review needs to be more focused on each assumption, rather than financial statement as a whole in the audit.

The following shows the potential differences based on the objectives of the PBA Review listed in KI#4:

Objectives	**Consulting Actuaries (CA)**	**Auditing Actuaries (AA)**
Assure Regulators		• Can AA provide assurance to Regulators? Yes • Can AA answer Regulators' questions as a PBA Reviewer? Not a problem • Can AA deliver what the Regulators want in her/his PBA Review? Not a problem, currently happening under PCBAO.
Promote Consistency	CA and AA are similar	
Validate Actuarial Judgment	May be in a more collegial atmosphere than an auditing environment. May improve the quality of the final product and make it more meaningful than an audit report.	• Auditor could be more concerned about whether the overall level of reserves is "right" rather than whether individual assumptions and margins are "right": True, but auditors can expand their role and look at individual assumptions when they perform the PBA Review* • Some wonder if the auditors can consult the Company on how to derive assumptions (e.g., what to do if the experience study is not credible, etc.): Can do it under the SEC definition.
Confirm Compliance		• Need to follow auditing guidance • What if auditing guidance is different from Regulatory requirements, ASOPs: No problem today and don't anticipate problem under PBA.
Reinforce Valuation Processes	CA may perform Review in a more a collegial atmosphere that may enhance the process.	• AA may already be familiar with the valuation process because of their audit role. • Too busy for both audit and PBA Review? May be but there is a large overlap and the audit opinion is not until 6/1.
Perform Reviews In between State Exams	CA and AA are similar	
May facilitate state exam		• Currently, state exam may use the CPA report as the starting point.
May facilitate external audit		• Big advantage for AA (similar work is used for two purposes.) This will reduce cost • Also auditor is already familiar with Company (may be a more in depth risk and also reduce cost of learning) • May integrate with Company processes better (since they've already established a reporting line with audit) • May be strange to have an audit sign-off date (6/1) that is different from the PBA Review sign-off date (3/31) but the latter are more about the "front-end" of the audit.

*Typically, auditors are only concerned with the financial statements taken as a whole. Therefore, they would not be concerned about each assumption being appropriate on its own. In some cases (e.g., FAS 97 EGPs) it is required that assumptions stand on their own. However, the auditor would only care that the result of whatever assumptions were used was materially the same as the result if each assumption was appropriate.

Benchmark

SEC/SOX

The SEC final rule dated 6/29/04 at: http://www.sec.gov/rules/final/33-813.htm says:

> 4. Actuarial Services
>
> The previous rules generally bar auditors only from providing actuarial services related to insurance Company policy reserves and related accounts.

Our proposal provided that the accountant is not independent if the auditor provides any actuarial service involving the amounts recorded in the financial statements and related accounts for the audit client where it is reasonably likely that the results of these services will be subject to audit procedures during an audit of the audit client's financial statements. Providing these services may cause an accountant to audit his or her own work later. Additionally, accountants providing these services assume a key management task. In addition, actuarially-oriented advisory services may affect amounts reflected in some Company's financial statements.

Some commenters agreed with our proposed prohibition of actuarial services. Others, however, believe that some types of actuarial services should be permitted.

Consistent with our proposal, the Work Group continues to believe that when the accountant provides actuarial services for the client, he or she is placed in a position of auditing his or her own work. Accordingly, the rules the Work Group is adopting prohibit an accountant from providing an audit client any actuarially-oriented advisory services involving the determination of amounts recorded in the financial statements and related accounts for the audit client. Other than assisting a client in understanding the methods, models, assumptions, and inputs used in computing an amount, it is reasonable to conclude that the results of these services will not be subject to audit procedures during an audit of the audit client's financial statements.

As can be seen, however, the Work Group believes that it is appropriate to advise the client on the appropriate actuarial methods and assumptions that will be used in the actuarial valuations. It is not appropriate for the accountant to provide the actuarial valuations for the audit client.

The rules also provide that the accountant may utilize his or her own actuaries to assist in conducting the audit provided the audit client uses its own actuaries or third-party actuaries to provide management with its actuarial capabilities.

Canada

OSFI just revised the role of the peer reviewers this past March, which reconciles the role of the peer reviewer with the role of the auditor in light of the major expansion of the scope under AuG43.

An issue that the Work Group is now dealing with in Canada is the actuarial and auditing professions rewriting their joint policy statement. In a principles-based environment, auditors may not be interested in whether each assumption is properly chosen if the total number looks OK. However, the Work Group interprets the actuarial standard as requiring each assumption be appropriate. In principle, an actuary cannot offset conservatism in one assumption with a lighter assumption with respect to some other experience factor. It is clear from our discussions with leading professionals that the auditors may not care about this. For this reason, the OSFI is adopting the position that if the auditor's actuary is the peer reviewer for the valuation, then the peer review assignment must be separate from the audit assignment and the reviewing actuary must describe in the peer review and report the difference in standards that (s)he applied in the two assignments.

AICPA

AICPA has certain standards for auditors to take on consulting assignments: must have an engagement letter, scope, etc. Also, can’t accept if prior year’s fee not paid

PBA Review
Key Issue #7: Qualifications of PBA Reviewer

Principles

- The PBA Reviewer should have the same qualification requirements as the PBA Actuary whose work is being reviewed.

Assumptions/Interdependence

- The Appointed Actuary will issue a single Actuarial Opinion for both PBA and non-PBA valuation (KI#1 from Governance).
- The Professionalism Committee will decide if the qualification standards for the Appointed Actuary should be changed because of the PBA valuation (e.g. certification, additional continuing education).
- The Qualification Standards for Prescribed Statements of Actuarial Opinion may need to be modified for valuation actuaries doing PBA valuations.

Conclusions/Recommendations

- The qualification standards for the PBA Reviewer should be the same as for the Appointed Actuary.
- PBA Reviewers are expected to satisfy the Qualification Standards established by the profession. The Appointed Actuary is currently subject to the Specific Qualification Standards.

Analysis

- The PBA Reviewer should have the same qualifications as the Appointed Actuary.
  - The PBA Reviewer must have the same knowledge base and experience background as the Valuation Actuary to effectively review and understand the data used by the Valuation Actuary and to evaluate the subjective judgment made by the Valuation Actuary in a PBA valuation.
  - The PBA Actuary is the one most directly involved with the PBA valuation and needs to be as equally qualified as the PBA Reviewer.
- The Work Group's thinking is that the qualification standards need not change to accommodate PBA valuation because PBA valuation is similar to cash flow testing. However, the Academy may use this opportunity to increase the overall qualification standards.

  In general, the qualification requirements language appears to be broad enough to cover the actuarial skill set necessary to perform a PBA Valuation and a PBA Review. Clearly, education and continuing education opportunities would probably be expanded to include principles-based subject matter so that actuaries doing or reviewing PBA valuations would have access to education and continuing education in this area of practice in order to satisfy the current requirements.

- Current requirements for the Appointed Actuary include:
  1. Basic Education: The Appointed Actuary is required to take relevant actuarial exams from the SOA or alternative education plus the Academy's qualification exam. There is no need to change the current Qualification Standard language since the reference to the relevant actuarial exams from the SOA and alternative exams is general without listing specific topics. Of course, these exams will evolve to include PBA topics. However, there is a need to update the topic list for the Academy's qualification exam because the Qualification Standards contains a prescriptive list of topics covered in the Academy's qualification exam, which should be updated to reflect PBA topics.
  2. Experience: The Appointed Actuary is required to have 3 years of experience under review by a qualified actuary. This language is generic and there is no need to change it.
  3. Continuing Education: The language relating to continuing education hours is generic and there is no need to change it.

- Notable other aspects of the Qualification Standards for the Appointed Actuary are:
  1. Appendix 1: Appendix 1 would need to be updated to incorporate among the examples a Principles- based Valuation and a PBA Review of it.
  2. Appendix 5: Appendix 5 covers "Guidelines for Determining when Specific Qualification Standards Should be Developed**".** Since the PBA valuation is a part of the current NAIC opinion, it would seem that no additional Specific Qualification Standard would be necessary for the AA.

In summary, the Qualifications Standards may need to be updated to recognize the existence of Principles-based Valuation but it does not appear that any substantive revision to the current Qualification Standards needs to be made. For example, a PBA Review might be considered a new type of opinion requiring Specific Qualification Standards. But, the PBA Review qualification standards would probably be identical to the Appointed Actuary opinion standards that already exist. The Qualification Standards are worded generally enough to accommodate different approaches to valuation.

The following sections from the CODE of Professional Conduct serve as background.

> **PRECEPT 2.** An Actuary shall perform Actuarial Services only when the Actuary is qualified to do so on the basis of basic and continuing education and experience and only when the Actuary satisfies applicable qualification standards.
>
> > **ANNOTATION 2-1.** It is the professional responsibility of an Actuary to observe applicable qualification standards that have been promulgated by a Recognized Actuarial Organization for the jurisdictions in which the Actuary renders Actuarial Services and to keep current regarding changes in these standards.
> >
> > **ANNOTATION 2-2.** The absence of applicable qualification standards for a particular type of assignment or for the jurisdictions in which an Actuary renders Actuarial Services does not relieve the Actuary of the responsibility to perform such Actuarial Services only when qualified to do so in accordance with this Precept.

PBA Review
Key Issue #8: Reporting/Working Relationships

This key issue deals with the relationships between the PBA Actuary, the PBA Reviewer, the regulators, and the insurance Company. The Work Group will address these relationships in these areas:

- Relationship: Is it a peer relationship? Employment relationship? Compliance Relationship?
- Work process: How does the resulting work process arise from this relationship (e.g., appointment, accessibility, feedback loop)?
- Conflict resolution: what if the relationship does not work out? What are the legal implications?

Principles:

- Regulators have the ultimate authority in valuations (before the courts) and therefore the Regulator is the ultimate audience for final communications and the ultimate arbiter for the resolution of any conflicts

Assumptions/Interdependence

- Who hires the PBA Reviewer will affect the work flow, process for conflict resolution, and final product.
- The Academy recommends that the Company's Board hire the PBA Reviewer (KI #2) so in this document it is assumed that the Company makes that hire. However, the Work Group also considered the situation if the Regulator hires the PBA Reviewer. Separate comments noting differences in the working relationships in that situation are included at the end of this paper.

Conclusions/Recommendations:

- The PBA Reviewer:
  - Is hired/discharged by the Board
  - Issues a PBA opinion which is public
  - Has supporting work papers available for Board, Regulator, and auditor to review;
  - Works with PBA Actuary (peer relationship) throughout the valuation process and resolves issues along the way
  - Escalates material, unresolved conflicts to the Board. The Board will review work from the PBA Actuary as well as the PBA Reviewer. If the Board supports the PBA Actuary, the PBA Reviewer can issue a qualified PBA Review opinion
  - There is no direct conflict between the PBA Actuary and Regulators because it is the Company that is making the statement to Regulators. Conflict, if any, would be between the Company and Regulators.
- The relationship between the PBA Reviewer and others would be similar to that of an audit:
  - The PBA Reviewer and both the Company management and the Board of Directors will have a client and service provider relationship.
  - To avoid a possible conflict with management, it is recommended that the PBA Reviewer report directly to the Company's Board of Directors. The PBA Reviewer is responsible to the Board and will have ongoing dialogue with the Board. The work product from the PBA Reviewer will go to the Board.
  - The PBA Reviewer and PBA Actuary will have a collegial and cooperative peer relationship. They will work together throughout the valuation process. The PBA Actuary will produce the PBA valuation report by the annual statement file date, however, it is expected that prior versions will be shared with the PBA Reviewer.

Analysis

PBA Actuary and PBA Reviewer: Peer relationship (also addressed in PBA Review KI#3). In this document, the term PBA Actuary refers to both the Appointed Actuary and the supporting certifiers.

- Collegial and cooperative peer relationship:
  - The PBA Actuary should provide detailed documentation and cooperate fully with the PBA Reviewer.
- Work process:
  - The PBA Actuary and PBA Reviewer will work together to go over the assumption setting and modeling (perhaps in the fall) and continue to work thru the year-end.
  - The PBA Actuary will keep the PBA Reviewer abreast of the developments during this period.
  - The PBA Actuary will produce the valuation report by the annual statement filing date. However, it is expected that the early versions of this report will have been shared with the PBA Reviewer.
- Conflict resolution:
  - The PBA Actuary will work with the PBA Reviewers to resolve issues along the way. The Work Group doesn't recommend documenting each issue along the way and sending them to the Regulators.
  - If the two parties agree to disagree (very rare; most differences should have been resolved) and the difference is material, the Company Board should hear from both the Actuary and PBA Reviewer and resolve differences. If the Board supports the Actuary, the PBA Reviewer can issue a "qualified' opinion.

PBA Actuary and Regulators: Compliance relationship

- Compliance relationship: The Appointed Actuary's Actuarial Opinion and PBA certifications are required by law/regulation and must be filed with the state insurance regulatory authority in a timely manner (KI#1 from Governance subgroup).
- Work Process:
  - PBA Actuary will comply with the regulatory requirement on a timely basis (e.g., submit actuarial opinion).
  - PBA Actuary and other Company representatives, as necessary, will answer questions from the Regulators regarding her/his opinion and certification.
- Discipline: If the PBA Actuary does a poor job the Regulator can:
  - Influence Company management regarding the continued employment of the PBA Actuary
  - Report the PBA Actuary to the ABCD

PBA Actuary and Company: Employer/Employee relationship or client/service provider relationship

- Employment relationship: Valuation actuaries are Company employees or service providers who are appointed and discharged by the Board (KI#1 from Governance subgroup).
- Work process
  - PBA Actuary is hired by the Company, either as an employee or as a client service provider, and is appointed by the Board (both AA and certifiers).
  - Board accepts and reviews the PBA Actuarial Opinion and any certifications.
  - PBA Actuary needs to work with other Company management to ensure that the PBA assumptions are consistent (not necessarily the same) as for other purposes of the Company.

PBA Reviewer and Company: Client and service provider relationship

- Relationship should be similar to the auditing relationship.
  - The PBA Reviewer is responsible to the Company Board.
  - Board is responsible for appointing and discharging the PBA Reviewer.
  - Board should notify the domiciliary Regulators at time of hire and also at time of discharge. At the time of discharge the Company should also state whether there were any disagreements regarding previous valuations and the rationale for the change in the PBA Reviewer. The Company should also provide a letter from the previous PBA Reviewer stating whether the former PBA Reviewer agrees or disagrees with the statements in the Company's letter.
- Work Process:
  - Board should have ongoing dialogues with the PBA Reviewer.
  - Board accepts and reviews the PBA Review Opinion.
  - Board resolves conflicts between PBA Actuary and PBA Reviewer, if any. If Board supports the PBA Actuary, the PBA Reviewer can issue a qualified PBA Review opinion.

PBA Reviewer and Regulators: Similar to auditing relationship.

- PBA Reviewer works thru the Company (no direct relationship with Regulators).
  - PBA Reviewer will issue the PBA Review opinion through the Company as required by law/regulation.
  - Company will file the PBA Review opinion with the state(s).
- The supporting work papers from the PBA Reviewer will be available to Regulators and the external auditor.
  - The Regulator can contact the PBA Reviewers if any questions arise regarding the PBA Review Opinion and PBA work papers.
  - The Regulator may use the PBA reports in its state examination process.
- Discipline: If the PBA Reviewer does a poor job the Regulator can:
  - Disqualify the reviewer from future reviews at this or any Company
  - Report the PBA Actuary to the ABCD

Company and Regulators: Compliance relationship (See Governance KI#4, KI#5)

- Company management (Board) must notify the Regulator of the hiring of the PBA Actuary
- The Board, (not the Appointed Actuary as in AOMR today) should notify the Regulators of the Appointed Actuary's appointment and discharge (with rationale). Same for certifiers.

<u>Benchmark:</u>

Australia (P&C only):

- The Company selects the peer reviewer.

- For General Insurers, the Company must inform the Australian Prudential Regulatory Authority (APRA) in writing of the identity of the reviewer, and that she/he meets the eligibility and fits the proper criteria for an Approved Actuary. If APRA does not agree that the selected individual meets the selection criteria, they may require that the insurer engage an alternate actuary for the peer review.
- The reviewing actuary should have reasonable access to the Primary Actuary, the Primary Actuary's support personnel, the Company's staff and auditor, and any contractors and consultants involved in the Specified Valuation.
- The Primary Actuary must provide the reviewer with the Specified Valuation reports, and their appendices (or equivalent information). If this is not enough information for the reviewer to form an assessment, then the Primary Actuary must provide other items supporting the Specified Valuation and source data.
- Copies of the reviewer's report must be made available to the Board, management, the Primary Actuary, the auditor, and APRA.
- It is recognized that there is an inherent need for communication between the Reviewing Actuary and the Primary Actuary.
- The reviewer must elaborate if, in the reviews, he cannot state: "Having carried out the review as described in this report, nothing has come to my attention that would lead me to believe that the Primary Actuary's specified valuation results are unreasonable."

Canada: OSFI requirements

- The Appointed Actuary and staff should cooperate fully with the reviewer.
- Best efforts should be made to provide the reviewer any documents and explanations that are relevant to the review.
- It is expected that the Appointed Actuary will remain in contact with the reviewer throughout the year.
- A copy of the report should be made available to the Audit Committee, the External auditor, and OSFI
- The OSFI document states that it is "good practice" for the audit committee or Chief Agent to be advised of the terms of the external review and the identity of the reviewer.
- The report on the external review "should describe any instances where there is a remaining difference of opinion between the Appointed Actuary and the reviewer."

Canada: draft CIA standards (not adopted)

- The practitioner and the peer reviewer should try to resolve the differences themselves.
- The peer reviewer should sign the written opinion in accordance with the standard.
- Could be an apparent material noncompliance that would normally require the peer reviewer to follow the procedure set out in the Rules of Professional Conduct.
  - Step 1: practitioner and peer reviewer resolve the difference of opinion
  - Step 2: an appropriate third party assists in resolving the difference of opinion. The opinion of the third party cannot be imposed upon the practitioner or the peer reviewer. The practitioner should modify the work being peer reviewed in the case where the practitioner agrees with the peer reviewer.
  - Step 3: the difference of opinion is reported to CARS

If the State Hires the PBA Reviewer:

While the Academy does not recommend that the state hire PBA Reviewer, the Work Group did consider the differences in these relationships if the state hires the PBA Reviewer. In this situation, most relationships between the various players would be as noted above. However, some would be different and would tend to be as they are in a <u>state examination</u>. The following comments note where things would be different.

- If hired by the state, the relationships would be much like those in a state exam. The PBA Reviewer:
  - Is hired/discharged by the state
  - Would not issue a PBA opinion. The reviewer would issue a report to the Regulator communicating findings and conclusions.
  - Has supporting work papers available for review by the Regulators
  - Works with the PBA Actuary (peer relationship) throughout the valuation process and resolves issues along the way
  - Escalates any unresolved conflicts to the state.

PBA Actuary and PBA Reviewer: peer relationship

- Working Relationships and Work process would be the same as noted above.
- Conflict resolution: If the two parties agree to disagree (very rare; most differences should have been resolved), the state will decide what to do (similar to state exam)

PBA Reviewer and Company: Company/Regulator relationship

- Board receives a copy of the PBA Reviewer's report to the Regulator

PBA Reviewer and Regulators: employment relationship

- Similar to the relationship under state exams.
- State should notify the Company of the hire (some states may give Company several choices of PBA Reviewers to choose from).
- There is no need for a PBA Review opinion because PBA Reviewer is hired by the state to perform Regulatory duties. There is no need for the state (or via the PBA Reviewer it hires) to issue an opinion to itself.
- The PBA Reviewer is likely to produce a report with findings, etc. The report is likely to be shared with the Company before being finalized, and the Company would be provided with a copy of the final report.
- State may have ongoing dialogue with the PBA Reviewer.

PBA Review
Key Issue #9: How will the Valuation Actuary work change?

This Key Issue addresses how the valuation work done by the Appointed Actuary related to the Statement of Actuarial Opinion (SAO) may change because of PBA valuation. It is addressed because a parallel process for the PBA Reviewer will need to be built.

Principles:
- The Appointed Actuary is competent (qualified) to do the PBA valuation.

Assumptions/Interdependence:
- The Appointed Actuary will file a single Actuarial Opinion for the Company to cover both PBA and non-PBA reserves (Governance Key Issue #1).

Conclusions/Recommendations:
- Most of the current work surrounding the asset adequacy analyses can be applied to the PBA valuation with some modifications. For example, The Statement of Actuarial Opinion can accommodate the PBA valuation with minor modifications. The Actuarial Memorandum can be expanded to include, for example, more documentation on the derivation of assumptions and margins.
- The Appointed Actuary will issue a single public opinion to cover both PBA and non-PBA valuation. Whether there is a need for additional public certificates and the role and responsibilities of the certifiers is still under study.
- RAIIS issues are still under study.

Analysis
Sections of both the actuarial opinion and actuarial memorandum will need to be devoted to PBA reserves.

Actuarial Opinion on PBA Reserves:
- Reserve Table: Provision for PBA reserves may need to be added to the reserve table. Principles-based reserves may not fit well into the specified reserve bases in the current table.
- Reliance: A PBA valuation may rely on experience studies done by the Company, and, by implication, the asset adequacy analysis may also. Something on experience studies may need to be added to the section of the regulation that addresses reliance.

***Actuarial Memorandum*:**
- A separate section of the Actuarial Memorandum may be needed for PBA valuation because it may require more details and provisions specified by the PBA requirements (e.g., regulations and actuarial guidelines).
- The Actuarial Memorandum may draw from PBA report (or simply replicate sections in the PBA report).

Below is a table illustrating how the Actuarial Memorandum may differ between Asset Adequacy Testing (AAT) for reserves using current approaches and AAT for reserves using PBA valuation:

Sample Sections	***Current AAT***	***PBA AAT*** [Format updated]
Summary		
Scope	Line of business Reliance Disclaimers	Same + • Stochastic reserve exclusion • Reliance on experience studies, if needed
Conclusion	Reserves are adequate, in light of assets…	Same (note that the conclusion will still apply to the reserves for the entire Company)
Minimum reserve requirements	Yes	Yes, since the PBA approach will become the minimum reserve requirement for the applicable products
Summary of changes in assumptions, methods and modeling	Yes	Yes
Analysis of AAT results	Ending and interim results	Same, but analysis may be based on the stochastic method used in the PBA valuation (if applicable).

Sensitivity testing analysis	Yes	Yes
12/31 reserves (if earlier reserves were used for testing)	Certify that no subsequent event have occurred that would invalidate results	Roll-forward method, if allowed
Aggregation	Yes	Yes (within broad product categories subject to state regulation)
Liability		
Product Description	Yes	Yes
Review of Material Risks	Yes	Yes. What are the risks? How are they incorporated in the model?
Formula Reserves	Methods, bases; IMR/AVR; Balances by product; Additional AAT reserves.	IMR and AVR; additional AAT reserves
Assumptions	Bases; What are the assumptions?	Same + How the experience studies are applied and consistency between the valuation assumptions to the assumptions used elsewhere.
Reinsurance	Considered	Same
Inforce Data	Source of data; Reconciliation; Systems	Same
Changes from last year	Yes (more details than in the summary above, including impact)	Yes
Asset		Possibly the same section for PBA and non-PBA
Portfolio Description	Supporting segments; Risk portfolio; Allocation of assets for analysis; Asset valuation bases; Source of asset data.	Same
Assumptions	Treatment: CF projection	Same + information supporting any Clearly Defined Hedging Strategy (likely to refer to the PBA Report)
Changes from last year	Yes (more details than in the summary above, including impact)	Yes
AAT methods		
CFT method	Criteria for determining asset adequacy; Testing period; Reinvestment/divestment; IMR/AVR; Interest rate scenario; Taxes; Changes.	Same except for no need for the criteria (unless the criteria happens to be more conservative than that used in the PBA reserve)
Alternative testing	Yes	Not likely
Not tested	Yes	Yes?
Changes in methods	Yes	Yes
Modeling		
Overall valuation process	No	Yes
Grouping policies for modeling	No	Yes
Model validation	No	Yes

Regulatory Asset Adequacy Issues Summary (RAIIS)

(Still under consideration)

PBA Review

Key Issue #10: Regulatory Review – PBA Valuation and PBA Review

This issue addresses what the Regulators may review, frequency of review and how to ensure uniformity and quality of the review:

- What: What will the Regulators receive for their review? What are the objectives of these submissions?
- How: What should be the focus of the review?
- When: What is the frequency of review?
- Who: Who will the reviewer be? What resources will they need? What level of uniformity will there be? What will be the quality of the review?

This issue covers both the oversight for PBA valuation and PBA Review.

Principles

- Effective use of resources for Regulators and industry is important to policyholders.

Assumptions/Interdependence

- Uniformity is an important issue: See KI #3 from the Governance subgroup.

Conclusions/Recommendations

- Uniformity is a key to the success of PBA valuation: See Governance KI#3 for options for the ongoing state oversight:
  - State-by-state: need to develop guidelines on the review of PBA valuation and PBA Review. Need to develop recommended review guidelines, review procedures etc. This will help states to have similar criteria in reviewing PBA valuation (Actuarial Opinion, PBA certifications, supporting memos, RAIIS etc), PBA Review (PBA Review Opinion, PBA Review report etc.) Perhaps the state examination handbook can be expanded to accommodate the review guidelines.
  - Domiciliary state: along with the PBA Review. The PBA Review provides an additional level of review that did not exist before.
  - Central oversight: centralize resources to review
- Each component of the ongoing regulatory oversight process needs to change because of PBA:
  - Certification of valuation: A lot of state variations (from scope to who does it). Need to evaluate if it is still needed, if it can be integrated with SAO, etc. Need to determine if PBA still requires a certification of valuation since PBA no longer has reserve bases to be itemized.
  - Statement of Actuarial Opinion (SAO): Appointed Actuary will continue to issue SAO (some changes to AOMR and ASOP may be needed); issue of incorporating of the PBA certificates, if any.
  - PBA Review: A new regulatory process needs to be built,
  - PBA Certificate: The Work Group is still evaluating if any public PBA certificates in addition to the Statement of Actuarial Opinion is needed.
  - One-off requirements by individual states: not clear how this may evolve but should be discouraged.
  - Financial examinations: The financial examination process needs to be augmented to include PBA.
- NAIC should establish a database to track the Company filing. This can help in sharing the information among states as well as reducing paper submissions of the same filing to each state.

Analysis

***Current process**:*

Before discussing how the regulatory review may take place in the PBA environment, it is helpful to look at how the regulatory review takes place today:

Regulators

⇒ Annually: A review of submissions which focuses on exceptions and/or the current "hot" issues

- ***SVL Section 2*:**
  - *Domestic commissioner shall annually value, or cause to be valued, reserves:* Different interpretations if Regulators must carry out the charge themselves of if they can rely on the Companies' valuation.
  - *Foreign commissioner may accept valuation certified by another jurisdiction (or caused to be made.) The certificate of valuation (CV) shall:*
    - Show the amount of reserves; specify the mortality table or tables, rate or rates of interest, and methods. In calculating reserves, the commissioner may use group methods and approximate averages for fractions of a year or otherwise.

    - Comply with the domestic's minimum standard and the aggregate reserves would be at least as large as if they had been computed in the manner prescribed by the foreign state.
- ***In Practice***, many states (not all) have issued CV:
  - Content/Objective: Minimum reserves meet the domiciliary state's standards each year-end. It typically lists out the valuation bases (formula reserves) for life and annuity in Exhibit 5. It also may include Separate Account Exhibit 3.
  - State variations on:
    - Timing: Some states prepare them before the annual statement filing date while others issue them after the annual statement date.
    - Content: Some states itemize reserves from certain Exhibits (which Exhibits are not necessarily consistent; other states may use the SAO process (see below) instead.
    - What does the domestic state do to issue a CV? Seems to vary. Some do spot recalculations, some do reconciliations, and some may not do anything.
    - How do non-domestic states rely on the CV? A small sample said "not much reliance", "not sure if have gotten CV from all other states". No state seems to be reproducing the CV itself.
- Company: files Statement of Actuarial Opinion (SAO) with most states
  - Content/Objective: Minimum reserves meet the domiciliary standards, minimum reserves meet the non-domestic states' standards in the aggregate, and minimum reserves are adequate (except that there is no adequacy opinion for small Companies in some states). It covers all general account and separate account actuarial items.
  - Several states have variations: for example, some require filing of the supporting actuarial memorandum; others ask the Company to include specific information, which could vary from year-to-year
  - Most domestic states only require the filing of SAO but not the supporting memos
  - New York reviews filings from the foreign companies (requires filing of both opinions and supporting memos) rather than relying on the domiciliary state's review. California has reviewed them from time to time.
  - Some states rely on the SAO as its CV since it covers reserves from all Exhibits and it covers both the compliance to minimum reserves as well as adequacy of the reserves.
- Company: files a number of one-of-a-kind opinions and certifications (e.g., XXX opinion, MGA Opinion)
  - Content/objective: this seems to vary. The current X factor opinion addresses only the determination of the X factors and does not specifically address reserves.
  - State variations: For example, some states may or may not require a particular XXX opinion, but generally companies file the same opinion to all licensing states that require it (except NY).
- Company: files statutory audit opinion, performed by its external auditor, with all licensing states before 6/1. Regulators rarely asked questions (questions would be back to the Company not its auditor.)
- Most regulatory reviews are done internally by states

⇒ Every 3 to 5 years: A financial examination
- Mostly done by domiciliary states; sometimes joined by zone examiners representing other states.
- A lot, if not most, of the audits are accomplished by contracting consulting services

Issues related to current process (mostly related to the annual submissions):

- A lot of papers flying around: Certifications of Valuation, Statements of Actuarial Opinion, executive summaries and Regulatory Asset Adequacy Issues Summaries, and Actuarial Memoranda and Regulatory Asset Adequacy Issues Summary to NY (most domestic states don't require this filing), statutory audit opinions etc.
- Requirements are different by states: minimum reserves, Statements of Actuarial Opinion, executive summaries and Regulatory Asset Adequacy Issues Summaries, and Actuarial Memoranda (content). To our knowledge, no State specifies the format of the memorandum. NY and CA have specified minimum content.
- Reliance on the state of domicile is uneven, particularly in the Statements of Actuarial Opinion.
- Resources devoted by states (therefore quality of the review) are uneven. This is particularly an issue with the Statement of Actuarial Opinion process
- Inconsistent items subject to review between Certifications of Valuation (selective reserves) and Statement of Actuarial Opinion (all reserves)

PBA Environment

What's going to be different?

- Given the current structure, things can become even more complicated/confusing in the PBA environment because it Requires judgment (no more black-and-white rules)

- Comes with additional governance processes (e.g., PBA certifications, PBA Review) which can increase variations exponentially
- Is a paradigm shift, which requires learning curves from different states
- Is complicated and many aspects could cause misunderstanding and confusion when multiple states are involved

Also, the blurring line between minimum reserves and adequate reserves in the PBA environment can add further confusion. If the current system does not change, the Work Group is likely to see significant increase in state variations.

Some of the questions that the Work Group discussed are:

- **Is the PBA valuation considered the "minimum" reserve or "adequate" reserve?**

  The PBA valuation produces "the" reserve based on prudent best estimates. However, there are currently a few "prescribed" elements in the valuation with the intended result of ensuring the reserve is not less than a prudent best estimate. The Work Group views the PBA reserve that complies with the regulation (which now has a combination of prudent best estimate and prescribed elements) to be the "minimum" reserve. This means that the PBA reserves cannot offset the sufficiency/deficiency from other formula reserves.

  The PBA 'minimum" reserve should normally also be the "adequate" reserve since the PBA valuation defines the "adequate" reserve to be based on prudent best estimates as well. One exception could be if the "prescribed" elements are less than prudent best estimates. For example, if the Company thinks the prescribed CTE65 is not adequate.

  The Work Group concluded that the Appointed Actuary should decide if the PBA reserve is adequate (as for the formula reserve), however, she/he may not need to do anything if the PBA reserve is obviously adequate, especially for stochastic calculations. The Actuarial Standards Board may need to revisit ASOP 22 to accommodate the PBA valuation. (e.g., is a qualified PBA stochastic calculation a new type of AAT?) The PBA reserves can be used to offset the sufficiency/deficiency from other formula reserves in the AAT testing.

- **How will the Certificate of Valuation change** since formula reserves no longer exist? What will the format be for PBA? (Note that a simple list of the valuation basis won't work for PBA.) Should the Certificate of Valuation be integrated with the SAO process?

  Given the inconsistent content, format, goals, work involved, reliance from domestic states, overlap with SAO, there is a good case made for not keeping CV as it stands today. A couple of alternatives are:
  - Redesign the CV process: consistent objectives, format, review etc. For example, instead of itemizing reserves by valuation bases (no longer exist under PBA), the domestic state can certify that the PBA reserves meet the requirements of the state of domicile.
  - Eliminate CV: Change in SVL language is needed.
  - Integrate CV with the SAO process

- **How should states use the PBA Review Opinion**?

  The PBA Review Opinion will focus on the actuarial judgment and the general quality of the PBA Opinion and supporting Actuarial Memoranda. It will not cover an audit.

  The states should use the PBA Opinion as a tool to evaluate the PBA valuation. This will lessen the states' efforts in reviewing the PBA valuation themselves. As mentioned earlier, some states have resource issues in reviewing the supporting documentation related to SAO (which would be very similar to the PBA valuation reports.) The PBA Opinion should help the state in its review of the PBA valuation and reduce the unevenness of resources devoted and quality of review by state.

  The states can focus on the "qualified" PBA Review Opinion and/or PBA Opinion.

- **How should the states review the PBA certificates? How are they different from the SAO?**

  The Governance subgroup is still debating if both a single Actuarial Opinion and multiple PBA certificates should or can co-exist. If so, who is ultimately responsible for the PBA valuation? What is the difference between certifications and an Actuarial Opinion, given the PBA valuation is moving towards what the Actuarial Opinion was trying to accomplish?

- **How to ensure uniformity in the review of the annual submission**s?

  As mentioned above, states vary in their issuance of CV and their review of SAO today. For example, some states may have specific criteria for their review (what to look for) while others don't. Some states may have certain procedures for reviewing SAO from domestic companies but different procedures for reviewing non-domestic companies.

  The additions of the PBA certifications will compound the problems (more to track and review.) The PBA Review Opinion can both compound the problem (additional submissions) and alleviate the problem (it may provide some consistency in reviewing the PBA valuation).

  Several alternatives:
  - Develop recommended review guidelines, review procedures, etc.: This will help states to have similar criteria in reviewing PBA valuation (Actuarial Opinion, PBA certifications, supporting memos, RAIIS etc), PBA Review (PBA Review Opinion, PBA Review report etc.) Perhaps the state examination handbook can be expanded to accommodate the review guidelines.
  - Rely on the domestic state's issuance of CV and review of SAO now that the Work Group has built an independent PBA Review system. The PBA Review provides an additional level of review that did not exist before.
  - Establish a central review system: PBA valuation (Actuarial Opinion, PBA certifications, supporting memos, RAIIS etc), PBA Review (PBA Review Opinion, PBA Review report etc.) will be reviewed centrally.

- **How do we save trees**?
  All annual submissions to states are done on a paper basis. This can be cut down if the NAIC can establish a database to store these submissions. The database may need to be further separated by public submissions and "confidential" submissions. The upkeep of the latter is important. But, the Work Group appreciates that the NAIC may be reluctant to maintain a separate database for confidential filings for which multiple layers of authorization may be required. Also, a source of revenue to fund the database and staff needed to maintain it may need to be identified.

- **Is there a need to change the state examination process**?
  There seem to be few issues with this process. Of course, the state exam procedures must be updated to accommodate PBA valuation (see KI#11). The NAIC's Financial Condition Examiners Handbook will need to be amended to identify examination steps required to examine a PBA reserve. One major issue is what criteria will an actuary need to verify that the amount reported, not just the process, is acceptable?

The Work Group recommends essentially the same process as today, accepting the CPA Audit Opinion and PBA Review Opinion every year with additional review by the Regulators if they feel it necessary and a financial examination every 3 to 5 years. A far more intrusive and expensive possibility is an independent appraisal of the Company by an independent actuarial consulting firm every 5 to 10 years.

PBA Review
Key Issue #13: PBA Review Opinion /Report Format

A formally required review which is intended to convey information regarding the satisfactory nature of work done in a Principles-based Valuation should be expected to include some written communication of the findings of the review process. This issue paper discusses the nature of that communication.

Assumptions/Interdependence:
Key Issue #3 describes the Scope of a PBA Review. This Scope involves the PBA Review actuary in a review of a number of items which are part of a Principles-based Valuation, including the identification of material risks, valuation methods, selection of assumptions, modeling process, overall level of reserves, and the adequacy of documentation. The PBA Reviewing actuary will provide a written opinion addressing these items of review. As proposed in KI#3 the PBA Review opinion would consist of a statement along the following lines:

I have reviewed the PBA valuation performed by [PBA Actuary] and in my opinion:

- All material risks are captured,
- the methods used are appropriate,
- the models used are reasonable for the purpose,
- the assumptions used are supportable,
- the margins in the reserves are supportable, and
- the actuary has followed all relevant laws, regulations, AGs, and ASOPs in doing this work.

Conclusions/Recommendations:

- A PBA Review opinion consistent with the proposal in Key Issue #3 should be completed. The Work Group is still evaluating if this opinion should be made public or be available only to Regulators, the Company and its auditor.
- Documentation in support of a PBA Review opinion should be available on a confidential basis to the Regulators and the Company.
- The form of the documentation is still under study.

Analysis
The Work Group recommends a PBA Review opinion that will cover the scope as defined in KI#3. However, the Work Group has not developed the exact language or the format for such an opinion. The Work Group also discussed if this opinion should be made public. Both Canada and Australia make the PBA Review opinion available only for Regulators, Company management/Board. The rationale is that the public should comment on the Actuarial Opinion from the Appointed Actuary. The Work Group is still evaluating if this opinion should be public.

The Work Group also analyzed whether or not the PBA Reviewer should prepare a report in support of the opinion as well as the opinion. The Work Group agreed that it is good actuarial practice to document and the decision is whether this type of document should be in the form of a formal report or work papers.

ASOP #41 addresses Actuarial Communications. An Actuarial Report is defined as:

> 2.3 Actuarial Report—A written or electronic presentation prepared as a formal means of conveying the actuary's findings that records and communicates the actuary's methods, procedures, and assumptions. Unless so designated by the actuary, communications such as the following are not actuarial reports:
> a. transcripts or summaries of an oral communication of actuarial findings;
> b. internal communications, for example within a Company, organization, firm, or government agency; and
> c. communications, during the course of an assignment, among those providing actuarial services.

And under requirements (section 3.3 of ASOP #41) it states:

> 3.3.3 Actuarial Report—In addition to the actuarial findings, an actuarial report should identify the data, assumptions, and methods used by the actuary with sufficient clarity that another actuary qualified in the same practice area could make an objective appraisal of the reasonableness of the actuary's work as presented in the actuary's report. To the extent the data, assumptions, and methods used have been described in a previous actuarial report that is available to the intended audience, the actuary may, if appropriate under the circumstances, incorporate this information by reference into the actuarial report.

The PBA Reviewer would merely be reviewing the appropriateness of such "data, assumptions, and methods used" by the actuary whose work was being reviewed. Since anyone reviewing the PBA Review opinion would also have access to the

PBA report, which it reviewed, she/he would have access to the “data, assumptions, and methods.” As a result, a report would have little to add. Some suggestions as to what the PBA Reviewer could be adding are: scope of the review, how he or she arrived at the conclusions and recommended changes, etc.

However, unlike a traditional peer review initiated informally by an actuary seeking private comment on his or her work product, a PBA Review is (according to current understanding) part of a formal process intended to provide information to various users of a Principles-based Valuation report. Since multiple users are envisioned, some form of written documentation of the review process seems appropriate.

As a result, the Company and Regulators may wish to see some record of the work performed by the PBA Reviewer. This information, which could simply be in the form of work papers, would provide assurance that the work was done properly.

PBA Review
Key Issue #16 Benchmarking

Benchmark: Canada & Australia

KI	**Key Issues**	**Canada March, 2006 Draft**	**Australia (P&C only)**
#0	Is there a need for a PBA Review?	Yes. New audit requirement under AuG-43 will not be sufficient to fully address the external review requirements. If the auditor's actuarial specialist is not an FCIA, extra care should be taken by the external reviewer to verify that all CIA standards are met.	"For Australian authorized life insurers, there is no current mandatory peer review requirement by ARPA as at the issue date of this Professional Standard". (Professional Standard 100 1.6.3) (for insurance liability valuations) For "General Insurers", GPS 310 mandates peer review for insurance liability valuations. Specifically, the Insurance Liability Valuation Report (ILVR) must be peer reviewed. The Financial Condition Report (FCR) may be reviewed at the insurer's discretion.
#1	How is PBA Review different from peer review, second opinion, state exam and audit		
#2	Who should hire the PBA Reviewer?	"A reviewer is to be selected by the Company" The Audit Committee or Chief Agent should be advised of the terms of the review, and the selection of the reviewer, before the review is begun.	For general insurers, "An insurer must arrange to have the ILVR prepared by the Approved Actuary peer reviewed by a Reviewing Actuary…" (GPS 310, #64)
#3	What's the scope of a PBA Review?	The reviewer should: ➢ Ascertain AA's work is within the range of accepted actuarial practice (reg, guidelines, CIA) note: no need to duplicate the work of the external auditor ➢ Review adequacy of procedures, systems and the work of others relied on by the AA (if not reviewed by the external auditor.) This includes checks on data integrity, procedures used to validate calculations, and results ➢ Review appropriateness of each assumption and method used in valuation (within the range) ➢ Determine whether the AAR accurately describes the assumptions and methodology employed by the AA ➢ Review the methodology, assumptions, and scenarios used for future financial condition reporting as required by the Superintendent (usually based on Dynamic Capital Adequacy Testing) ➢ For Canadian life companies, (i) review the appropriateness of the allocations to participating accounts and sub-accounts, (ii) review the AA's opinion to the directors on the dividend policy's fairness and (iii) review the AA's report to the directors on the fairness of changes made to	Scope of Specified Valuation, (according to Professional Standard 100) ➢ Data (appropriateness, sufficiency, sources, reliability, reliances, extraction, summarizing, quality checking, evidence of auditing, etc) ➢ Valuation Methods (appropriateness and application) ➢ Assumptions ➢ Controls ➢ Analysis of Specified Valuation results (consistency within results, and with actual/expected analysis, explanation of movements) ➢ Specified Valuation results(support of results by experience, sensitivity to key assumptions, clear statement of results and other disclosures, etc) ➢ Standards (compliance and proper disclosures) The scope of the Peer Review does NOT include performing the reviewer's

		adjustable policies ➢ For life companies' MCCSR/TAAM returns, review the work of the AA in the areas that require actuarial assumptions and calculations and ensure the work is consistent with the opinion accompanying these filings ➢ For Canadian life companies, validate the calculation and presentation of the Source of Earnings Disclosure (Guideline D-9) ➢ Produce a written report documenting the findings of the external review Not required to do ➢ Detailed recalculations	own Specified Valuation
#4	Who's the audience and what are the objectives of a PBA Review? Confidentiality?	OSFI's objectives in calling for external review are ➢ Maintain and strengthen confidence of AA's work by the public, Company management and Regulators ➢ Narrow range of practices ➢ Improve quality of AA's work ➢ Provide significant professional education for the AA Audience: ➢ Audit Committee or Chief Agent (possibly a summary) ➢ External Auditor ➢ OSFI (confidential)	"The Reviewing Actuary must only accept an appointment on condition that his or her report will be addressed to one of the Board, management, the Primary Actuary or the auditor of the Entity, and that copies of the report in its entirety are provided to the other parties. The Reviewing Actuary must acknowledge in writing as part of the appointment that a copy of the report may be provided to APRA." (PS 100, 4.1.5) GPS 310 gives similar guidance for general insurers.
#5	Pre or Post Release? Frequency of review	"For a pre-release external review of work subject to external audit, the external review report should be submitted to the audit committee or to the Chief Agent on, or shortly before, the date the AA reports on any work." Each item of the AA's work (listed above) should be reviewed at least once every three years. A material change should be reviewed in the year in which the change is made.	For general insurers, the ILVR must be peer reviewed before submission to APRA (GPS 310)
#6	Who should do the PBA Review (consultants, auditor?) and what is the division of labor between PBA Review and an audit? Engagement letter design	The reviewer may be working in the Company's external audit firm, and may be the actuary used as the audit specialist, as long as the review work is a separate, standalone engagement from the audit work. Audit work is defined by the AuG-43 guidance. PBA Review work is defined by the excess of work described in this guideline, above that required by external audit.	"An Actuary employed by the same Firm as, or by a Firm associated with, the auditor of the Entity is not precluded from conducting the External Peer Review as part of an enhanced audit scope" (PS 100, 5.2.3) Also see definition of "External", below.
#7	What are the qualifications of the PBA Reviewer? Conflict of interest/ independence clause?	"Where the auditor's actuarial specialist on the engagement team is not an FCIA, the external reviewer should take extra care to verify that all CIA standards are met." An external reviewer is expected to meet the same qualification standards as an AA: • Worked in Canada for at least 3 of the last 6 years,	Reviewers must "satisfy themselves that they have the relevant expertise and experience consistent with the Institute's [of Actuaries] Code of Professional Conduct" (PS 100, 4.1.1) The reviewer must be "external": "The Reviewing Actuary is considered External provided there is avoidance of

		• Is up to date with the CIA's Continuing Professional Development • Has an up to date AA certificate from the CIA (starting Oct 1, 2006) • Is not the subject of an adverse finding of the CIA Disciplinary Tribunal (unless the Superintendent concludes that that person is still suitable) Also, the reviewer • Should have had exposure to two or more unrelated insurance companies • Should have no relationship with the insurer or the AA that would impair objectivity • May not be an employee of the Company or its affiliates • May not have been employed by the Company in the past three years • Must not be a shareholder or have a financial investment in the Company (being a policyholder, beneficiary, or insured is acceptable) • May not be in the same consulting Company as the AA, if the AA is a consultant. • May not be in the same consulting firm as someone participating in the actuarial work. More than one reviewer can be engaged to review the AA's work.	conflicts of interest, which would make, or would be perceived by a reasonable person with full knowledge of all relevant facts and circumstances to make, the Reviewing Actuary not capable of exercising impartial judgment in the conduct of the review." (PS 100, 5.1.1) Reviewing actuary "must be satisfied that any personal, commercial or employment relationships with either the Primary Actuary or the Entity do not create conflicts of interest." (PS 100, 5.1.2) Any such commercial or employment relationships in the past 2 years must be disclosed, and must be explained as to how they don't affect the reviewer's judgment The reviewer cannot be a current employee of • The entity reviewed, • An associated entity receiving the Primary Actuary's Actuarial Advice, or • The entity employing the Primary Actuary, or Company associated with it (if different from the entity being reviewed) "A Reviewing Actuary must not accept an engagement for more than five years in a seven-year period to perform External Peer Review of the Specified Valuation of an Entity. Having stood down in accordance with this requirement, a Reviewing Actuary must not accept re-appointment in respect of the same Entity for two consecutive years." (PS 100, 5.3.1) This applies to individual Reviewing Actuaries. Rotation of Reviewing Actuaries can take place within a partnership or firm, so long as the above requirement is met for the individual actuaries. **For General Insurers (GPS 310):** The insurer must provide APRA with the details of the Reviewing Actuary (name, address, tel #) and a written statement that the RA meets the eligibility requirements and criteria for an Approved Actuary. \\ APRA can "veto" a particular Reviewing Actuary. A reviewing Actuary: • Must not be an employee of the

			insurer, or from the same firm as the Approved Actuary, or from a related Company. • May be from the same Company as the Approved Auditor.
#8	What is the reporting relationship between the PBA Reviewer, Regulators, Company, Appointed Actuary, and Actuary?	"The AA and management of the Company should co-operate fully with the external reviewer when the review is being carried out. Best efforts should be used to provide the reviewer with access to any required documents and to provide any additional explanations that may be relevant to the external review." It is expected that the AA will be in contact with the reviewer throughout the year. The reviewer should not provide consulting services with respect to potential changes in methodologies and assumptions. The written report (or summary) should be made available to the Company's audit committee (or the Chief Agent, if the Company is the Canadian branch of a foreign insurer). The complete report should be made available (confidentially) to OSFI and to the External Auditor.	"The Primary Actuary must provide the Reviewing Actuary with the Specified Valuation report(s) and appendices, containing the Actuarial Advice, that may have been prepared, or equivalent information if reports have not been prepared. If this information does not provide enough information for the Reviewing Actuary to form an assessment, then the Primary Actuary must provide other items on file supporting the Specified Valuation and/or relevant source data. All information must be provided electronically if available in that form." (PS 100, 4.2.1) The Reviewing Actuary should have reasonable access to: • The Primary Actuary • Personnel supporting the Primary Actuary • Staff • Auditor of the entity being reviewed • Contractors and consultants involved in the Specified Valuation
#9	How will the Valuation Actuary work change? Report Format		
#10	How should the Regulators review the PBA Review? State of domicile? Central review?		
#11	How should the state exam or the external audit change because of PBA?		
#12	Legal protection for the PBA Reviewer (other legal environment issues?)		"The responsibility for the Primary Actuary's Actuarial Advice remains with the Primary Actuary. The External Peer Review is a review, but does not provide a guarantee, of the Primary Actuary's Actuarial Advice." (PS 100, 1.4.4)
#13	PBA Review Report format	The report should: • Describe the extent of the work done by the reviewer. • Conclusions with respect to AA's compliance with o accepted actuarial practice	As stated above, report should cover: • Scope • Data • Valuation Methods • Assumptions • Controls

		o OSFI regulations, guidelines, memoranda to the AA • Describe any changes to previously employed methods or assumptions that were made because of the review (or state that no changes occurred) • Describe any remaining differences of opinion between the reviewer and the AA. • If the reviewer works for the Company's external audit firm, the report should describe differences between the requirements for audit work (AuG-43) and for review work (this guideline). It should also describe additional work done in excess of the AuG-43 guideline.	• Analysis of Specified Valuation results • Specified Valuation results • Standards There should also be a conclusion, including either this statement or a detailed explanation as to why this statement cannot be made: "Having carried out the review as described in this report, nothing has come to my attention that would lead me to believe that the Primary Actuary's Specified Valuation results are unreasonable." (Professional Standard 100) For General Insurers (GPS 310), the report must include: A description of the scope of the review (investigations, reports reviewed, process followed) A description of the extent to which the RA had access to the relevant data, information, reports, staff, contractors, and Approved Actuary. An assessment of the appropriateness of the data, information and reports to the ILVR. An assessment of the reasonableness of the Approved Actuary's investigations and reports.
#14	Geography: what needs to go to SVL, Reg, AG, ASOPs		
#15	Inforce versus New Business		
#17	Should this system apply to both reserves and capital (Duplication? Leverage?)	MCCSR and TAAM	Just the "Specified Valuation" is mentioned in Professional Standard 100. For general insurers, the ILVR must be peer reviewed (reserves), and the Financial Condition Report (FCR) may be reviewed at the insurer's discretion.

Other Governance Issues
Detailed Analysis

The Work Group identified 14 key issues to be considered and evaluated in developing the structure and characteristics of other elements of governance for the PBA valuation. These are:

0. **Difference between PBA valuation and non-PBA valuation**
1. **Current valuation structure (e.g., Appointed Actuary) in the PBA valuation**
2. **Objectives of PBA governance and the audience**
3. **Uniformity (state adoption of laws and ongoing oversight)**
4. **Company Board of Directors**
5. **Other Company management (not addressed as of date of this report)**
6. **Regulatory oversight (not addressed as of date of this report)**
7. **Governance for actuarial profession (not addressed as of date of this report)**
8. **Conflict resolution (largely addressed in KI #8 of the PBA Review)**
9. **Public disclosure (not addressed as of date of this report)**
10. **Legal environment (not addressed as of date of this report)**
11. **Application: in force versus new business (not addressed as of date of this report)**
12. **Benchmarking to other related governance models and processes (several governance models are reviewed)**
13. **Required changes in Standard Valuation Law, ASOPs, etc. (not addressed as of date of this report)**

Other Governance Issues
Key Issue #0: Current Valuation vs. Principles-based Valuation

The Work Group analyzed the differences between PBA valuation (as proposed by the LRWG) and rule-based valuation. The key differences identified indicate that PBA valuation:

- **Uses first principles to measure risks rather than using rules**
- **Allows Company specific experience**
- **Allows actuarial judgment in assumptions and modeling processes**
- **Continuously updates assumptions rather than only using assumptions set at issue**
- **Emphasizes interaction with other Company processes such as pricing, risk management, and experience studies**
- **Requires additional governances such as a PBA Review process**
- **May require additional disclosures**

The details are compared in the following table:

Current Valuation Process	Principles-based Valuation
There is a heavy emphasis on rules to establish minimum reserves: • Minimum "formula" reserve requirements are defined in valuation laws, regulations, actuarial guidelines for most products, based on particular methods, mortality and morbidity tables and interest rates • These formulas don't directly reflect all product risks. • Formula reserves provide a "safety net" of sorts.	There will be a heavy emphasis on risks: • Reserves for many products will be based more directly on actuarial models • These models must adequately reflect all aspects of the contract—i.e., they must take into account all material risks, benefits, and guarantees in the contract including "tail risks" • For many products, this implies multiple scenario or stochastic modeling • There may not be a "safety net" akin to today's formula reserves. • Formulas, or single scenarios, may be used for simple products if such an approach captures all material risks, benefits and guarantees
• Reserve sufficiency is tested using asset adequacy testing (AAT), with guidance provided in the law, AOMR and other regulations, as well as actuarial standards of practice, insurance department bulletins, and "practice notes" • Reserves are expected to cover "moderately adverse" conditions • **Additional AAT reserves may be established as a result of this process, or the actuary may choose to make a reserve basis change to increase reserves** • **Current reserve testing may or may not rigorously test all product risks, especially tail risks**	• For reserves modeled under multiple/stochastic scenarios, a CTE or other approach will be used to determine at what point on the distribution of possible results the reserve requirement will be set, to assure an appropriate level of conservatism; for these reserves, there is still a need for an adequacy opinion but separate AAT process may or may not be needed (up to the Appointed Actuary to decide). • There will be more emphasis on examining "tail risk" (low probability, high risk scenarios) • Formula or single scenario reserves will still require some form of AAT • New guidance will be necessary to set standards for this process

• Formula reserve assumptions (tables and interest rates) are generally set at issue (by law or regulation) • Formula reserve methods are also generally set at issue • These assumptions and methods generally do not change, unless AAT indicates that a change in reserve basis is desirable • However, NAIC actuarial guidelines, or insurance department circular letters, may provide additional guidance for how to interpret the valuation laws and regulations • There is limited use of Company experience in setting mortality and morbidity assumptions for "formula" reserves • There may be extensive use of credible Company and industry experience, and economic variables, which are updated regularly in AAT	• Assumptions used in modeling the revenue, risks, benefits and guarantees of products will be updated regularly • Similarly, the method used to model a product, or the details of the models may change over time • Credible Company and/or industry experience may be used as a basis for actuarial assumptions (mortality, morbidity, persistency, etc.) with suitable risk margins • New standards may be necessary for setting "actuarial" assumptions • New standards may also be necessary for economic assumptions (interest rates, spreads, defaults, equity market returns and volatility, etc.) • The increased complexity of the modeling process, and the dependence on model results to set reserves, may require more rigorous validation of models and more rigorous analysis of the results
• The current valuation process may not depend directly on the Company's overall risk management process	• PBA provides an opportunity to closely integrate the valuation process with the Company's risk management process
• Limited actuarial judgment is involved in setting most formula reserves (but **significant judgment in testing reserves)**	• Reliance on actuarial judgment (with respect to the quality of the models, the assumptions used in the models, and the conclusions drawn from the process) will be much greater
• Appointed Actuary, appointed by the Company's Board, provides a formal statement of actuarial opinion on the adequacy of reserves • This is a personal profession opinion, with significant personal and professional liability.	• Appointed Actuary, appointed by the Company's Board, will provide a PBA reserve opinion • The potential increase in personal and professional liability may need to be addressed. • The relationship between the Appointed Actuary and the PBV actuary is to be determined.
• No formal independent review process is required	• Most likely, PBA will require a formal independent review process (related issues are being discussed)
• Continuing education requirements exist for appointed actuaries	• Continuing education requirements may need to become more intense
• Regulators can review compliance with formulas, and the results of reserve testing. • These reviews may be ad hoc, or part of a comprehensive state exam.	• The regulatory oversight process becomes more complex, and the potential for reserves to be below the previous safety net makes the oversight role more significant.
• Disclosure in (statutory) financials encompasses conformance with minimum "formula" requirements and the opinion on reserve adequacy. These are public documents. • Supporting documentation (available to regulators) describes the reserve testing process.	• New disclosure standards will be required, especially with the increased complexity of the process used to set reserves, and the potential increased volatility in reserves. • New standards for documentation will also be required. • The extent to which this documentation is public information is to be determined.
• Tax reserves are linked to statutory reserves	• The nature of any future linkage is uncertain; however any linkage between the PBA reserve and tax reserve will heighten the complexity of the issues raised above.

Other Governance Issues
Key Issue #1: How will the PBA Valuation fit within the Current Valuation Framework?

This Key Issue addresses:
- **How will the Actuarial Opinion process change?**
- **Is there a need for a separate PBA Actuary?**
- **Is there a need for Actuarial Certifications?**
- **Is PBA Reserve a minimum reserve or an adequate reserve?**
- **Is Asset Adequacy Testing needed for PBA valuation?**

<u>Principles</u>
- Appointed Actuary has the ultimate responsibility for reserves – PBA and non-PBA

<u>Assumptions/Independencies</u>
- Reserves need to be adequate

<u>Conclusions/Recommendations:</u>
- ➢ The current Actuarial Opinion/Appointed Actuary process prescribed in the SVL2 and AOMR can be used for the PBA valuations with few revisions. There will still need to be an Actuarial Opinion signed by the Appointed Actuary that opines 1) on the adequacy of the reserves in the aggregate and 2) that the reserves comply with laws and professional standards.
- ➢ The Appointed Actuary will sign the Actuarial Opinion that covers both PBA and non-PBA valuation for the entire Company.
- ➢ PBA valuation is the "minimum reserve" and therefore should not be used to offset the "formula" reserves.
- ➢ PBA valuation is subject to the Asset Adequacy Testing (as for non-PBA). The Appointed Actuary will decide the most appropriate method to analyze the PBA reserves within the current asset adequacy analysis requirements. Any sufficiencies in PBA reserves can be used to offset any deficiencies in the non-PBA reserves in the company's asset adequacy analysis.
- ➢ Whether there should be public PBA certificates (one per PBA valuation) in addition to the Actuarial Opinion is still under study.
- ➢ Separate stand-alone PBA opinions (e.g., for each PBA product line) are not recommended. However, if separate opinions are required, the current SVL/AOMR already can accommodate them (using a qualified actuary). Therefore, there is no need to create a separate role (PBA Actuary) in SVL2 or the AOMR since there are already "qualified actuaries" under the SVL and AOMR who perform the reserve calculations and analysis.

<u>Analysis</u>

Current Situation
An Appointed Actuary is a qualified actuary who is appointed or retained by the authority of or directly by the Board of Directors to prepare the Statement of Actuarial Opinion (SAO) required by the SVL.

A qualified actuary is a member in good standing of the American Academy of Actuaries, is qualified to sign statements of actuarial opinion, is familiar with the valuation requirements applicable to life and health insurance companies and has not been found by the Commissioner to have violated specific laws or demonstrated fraudulent behavior.

Currently, the standard valuation law requires the Appointed Actuary to annually submit an Actuarial Opinion opining on the reserves and related actuarial items held in support of the policies and contracts specified by the Commissioner are:

(1) computed appropriately, based on assumptions which satisfy contractual provisions, are consistent with the prior reported amounts and comply with applicable laws and professional standards; and
(2) when considered in light of the assets held, the reserves are adequate.

The Appointed Actuary may rely on Company officers and investment managers for substantial accuracy of records and information. However, ASOP 22 and ASOP 23 contain specific requirements governing the Appointed Actuaries obligations to satisfy themselves that data and analyses provided by third parties are reasonable and consistent.

In addition to the SAO, there are also various "one-off" certifications/opinions (e.g., AG35 for equity indexed annuities) and opinions (e.g., x-factors under XXX). The scope of these certifications/opinion varies from verification of certain statistics to the reasonableness of assumptions. The required person to sign off also varies from a qualified actuary to the Appointed Actuary. There is typically no explicit relationship between these separate sign-offs and the SAO. As a result, there is some duplication and it may not always be clear who is responsible when there are disagreements between the actuaries that are involved.

Under PBA
A Principles-based Approach (PBA) captures all of the material risks, benefits and guarantees in the policy using basic risk analysis and risk management techniques and requires modeling to properly capture the risks of the business being valued. PBAs permit the use of Company experience, based on the availability of relevant experience and its degree of credibility, to establish assumptions for risks over which the Company has some degree of control or influence. It provides, for the use of assumptions that, when viewed in the aggregate, are on a prudent best estimate basis and that, together with methods utilized, include an appropriate level of conservatism that recognizes the objectives of statutory reporting.

Therefore, under a Principles-based approach, there will be a shift from formulaic reserves to reserves based on Company experience and model office projections. In other words, two companies today reserving for a whole life policy would likely establish the same exact reserve as reserve standards are prescribed. However, with a Principles-based approach this will not likely be the case as Companies will set reserves utilizing experience assumptions and therefore could get two different reserve amounts for identical policies.

All of this leads to the importance of the actuary and the assumptions utilized by the actuary in a principles-based approach.

The current LRWG proposal (see section 6 of the proposed Model Reg) requires that a qualified actuary (which doesn't have to be the Appointed Actuary, but could be) must certify that the work done to determine the PBR reserve meets the requirements of the regulation and all applicable ASOPs. The current VACARVM proposal has a similar certification requirement. The certification is not providing an opinion on the adequacy of reserves. It is only certifying that the work was done to determine the reserve was done in a manner that satisfies the applicable regulatory requirements and the applicable ASOPs.

The following are questions related to how PBA valuation may fit within the current framework and the Work Group's recommendations:

1. Should there be a single Statement of Actuarial Opinion that covers both PBA and non-PBA valuations?

Yes, the current SAO system allows for a single Opinion even though reserves for different lines of business may be computed with different methodologies (i.e., Term products, Universal Life, Accident & Health, etc.). This process would be no different under a PBA framework as some reserves can be based on a PBA and others on a non-PBA valuation. There is still a need for a single opinion on the adequacy of the reserves in the aggregate.

A single Opinion following the AOMR requirements will still be needed to opine on the adequacy of the reserves in aggregate even if 100% of a Company's reserves are following the PBA approach.

The PBA valuation produces the minimum reserve and therefore cannot be used to offset non-PBA valuations (formula reserves). However, any sufficiencies/deficiencies under a PBA valuation can be used to offset sufficiency/deficiency of non-PBA valuations for AAT purposes.

Also, since there may be prescribed elements in the PBA valuation imposed by the regulators, any "redundant" reserves resulting from these prescribed elements could be used to support the Appointed Actuary's opinion of the adequacy of reserves in the aggregate. This would not occur if the PBA reserves were "carved out" and not included in the aggregate opinion.

2. Should a single actuary give this opinion?

Yes, as the Work Group believes that it is best to continue to have one overall opinion about the Company reserves (PBA and non-PBA), as is required under the current AOMR framework, and that is best accomplished by the Appointed Actuary. This continues to make it clear who has the ultimate responsibility for reserves.

3. Should there be stand-alone PBA public opinions in addition to the overall Actuarial Opinion?

No, because similar to the rationale above, the current system allows for one Appointed Actuary to sign the actuarial opinion. To create separate stand-alone PBA Opinions would cause the need for possible regulation changes, confusion to the public and could be costly for Companies to implement as every product line actuary could conceivably have to render a PBA Opinion.

4. *Should there be stand-alone PBA public certifications in addition to the overall Actuarial Opinion?*

Our Work Group is still evaluating our position on whether there should be PBA certifications for the public (one per PBA valuation) in addition to the overall SAO. Our Work Group concluded that the Appointed Actuary is the person ultimately responsible for reserves. With the PBA valuation moving away from formula reserves and closer to the SAO, the line between the PBA valuation and SAO is blurring. Therefore, it will be challenging to define what should be included in the PBA certifications, if any, versus SAO.

Some of the issues the Work Group is looking at are: If public certifications are required, does this expose more actuaries to legal liability? Will the standard valuation law need to be altered as a result? What is the cost/benefit? What are the differences between the SAO and certifications? What are the interactions between the certifiers and the Appointed Actuary? How do the Appointed Actuary and certifiers relate to the regulators, Company Board, public etc.?

The following are some pros and cons to the creation of a new role of PBA certifiers (in addition to the Appointed Actuary):

Pros

- Provides checks and balances between Appointed Actuary and PBA certifier
- Provides additional regulatory assurance in reserve setting process
- Provides signoffs from those who could be closer to the valuation

Cons

- The roles and responsibilities between certifiers and the Appointed Actuary may be unclear and could be confusing to the public, regulators and Company management.
- If the Appointed Actuary were ultimately responsible for reserves via the SAO process, how would the PBA certification fit in with the SAO process?
- More actuaries (could have multiple certifiers in one Company) will be subject to legal exposure
- Appointed Actuary may have to place reliance on the PBA certifiers and this may cause the need to change the AOMR
- The Appointed Actuary already does most of the work in reviewing asset adequacy testing (including reviewing assumptions) and therefore, by adding a PBA Actuary role, this would duplicate the appointed actuaries current responsibilities
- Additional Actuarial Standards of Practice may be required for PBA certifiers
- If there is conflict between the Appointed Actuary and PBA certifiers, how is it resolved?
- Would the PBA certifiers need to have specific qualification standards and be subject to legal liabilities/exposures similar to the Appointed Actuary?
- Do we need to have a separate PBA Review (i.e., multiple PBA Reviewers) to correspond to multiple PBA certifications
- Does the Company Board need to appoint and receive reports from each PBA certifications?

5. Is PBA reserve the "minimum" or "adequate" reserve:

PBA reserve is the minimum reserve and as such cannot be used to offset other formula reserve for the non-PBA valuation.

6. Should an Asset Adequacy Analysis be required when a PBA is performed?

Yes, the Work Group believes there is still a need to perform an AAT to make sure that there are sufficient assets for the company to cover benefits and expenses. While it is likely that the PBA approach will typically result in adequate reserves on a stand-alone basis, the AAT provides an additional layer of testing, protection and comfort. The Work Group recommends that the Appointed Actuary decide whether to use the PBA valuation as an asset adequacy analysis method, if any additional analysis is needed, or an alternative analysis method is needed to reach the conclusion that the company's total reserves are adequate. For certain PBA valuations, there may not be a need for additional analysis.

In general, an AAT is required because of these four reasons:
#1: To test if the formula reserves are sufficient
#2: To see if there are sufficient supporting assets
#3: To perform sensitivity analysis on a company-wide basis
#4: To look at Company in aggregate

In an environment where all reserves are calculated using a PBA, it can be argued there would be no more need for #1.

#2 is needed, at minimum, to make sure there are asset balances on the valuation date. In the case of a stochastic PBA valuation, there may not be any need for additional work (in fact, the PBA valuation may be one of the accepted testing methods under AAT).

#3: Although stand-alone sensitivity tests are already required by the PBA proposals, there may be a need to analyze sensitivities on a company-wide basis.
#4: PBA reserve can be aggregated with non-PBA valuation for the asset adequacy testing purpose.

7. If public certifications are needed, will there be a need for separate actuarial memorandums in regards to each certification?

To be addressed later.

Other Governance Issues
Key Issue #2: Objectives of PBA governance and the audience.

This Key Issue addresses:

- Who are the stakeholders under the PBA valuation? How are they going to be impacted by the PBA valuation?
- Who are the governing bodies for the PBA valuation? What are their objectives? How do they accomplish their objectives?

Principles

Assumptions/Interdependence

Conclusions/Recommendations

- The Work Group believes that the stakeholders of an insurer will not change because of PBA valuation. However, the Work Group concluded that changes to corporate and regulatory governance rules and processes, because of PBA valuation, would impact certain stakeholders. The Work Group will address in other key issue papers these changes and potential impacts on stakeholders, including, regulators, Board of Directors, company management, and the actuarial profession.

- The entities governing an insurer are state insurance regulators along with company management and Board of Directors. Regulatory objectives differ from company objectives with respect to governance.

  Regulatory Objectives
  A primary objective of regulators is to protect consumers via monitoring solvency of the insurer. Regulators assess solvency through analysis of statutory financial statements. The Work Group believes that the current regulatory objectives will remain under PBA valuation, although additional objectives may be appropriate and regulators will likely need to make significant changes in their governance rules and processes in order to meet those objectives.

  The Work Group recommends a discussion and analysis of additional regulatory objectives by the regulators, including an objective of aligning regulatory objectives and company objectives, as well as analysis of the importance and emphasis placed on each objective. This will allow the Work Group to consider if and how current statutory principles of conservatism, consistency and recognition need to be coordinated with additional objectives under a PBA valuation.

  Company Objectives
  A primary objective of companies is the creation of company, creditor, investor, and policyholder (in the case of mutual companies for example) wealth. This objective underlies current GAAP financial reporting requirements, which focus on emerging earnings and appropriate balance sheet. Another important objective of companies is the requirement to comply with state and federal laws and regulations. The Work Group concludes that these Company objectives will not change as a result of PBA valuation. However, under PBA valuation, companies will likely need to make or be required to make changes in their governance rules and processes in order to comply with state laws and regulations. The likely changes in these rules and processes for company management and Board of Directors will be addressed in other key issue papers.

Analysis
Stakeholders
The following entities are identified having a direct or indirect interest in the viability of an insurer:

1. Policyholders/Beneficiaries
2. Stockholders/Investors
3. Bondholders/Creditors
4. Regulators
5. Company management
6. Boards of Directors
7. Employees
8. Producers/Agents
9. Reinsurers
10. Auditors (accounting and actuarial)

11. Company actuaries (Appointed, other)
12. Professions (actuarial, accounting, legal, investment, etc.)
13. Rating agencies
14. Investment analysts
15. Insurance and financial industry
16. General public (economic perspective)
17. Governments (tax and economic perspective)

It is not anticipated that the stakeholders of an insurer will change because of PBA valuation. Corporate and regulatory governance rules and processes will need to change under PBA valuation, which will in turn impact certain stakeholders. The governance work group will address these changes and potential impact on stakeholders in other key issue papers.

Objectives

The entities that govern an insurer are state insurance regulators, and Company management and Board of Directors. The objectives of regulators differ somewhat from the objectives of companies with respect to governance.

<u>Regulatory Objectives</u>

A primary objective of regulators is to protect consumers by ensuring that "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." Regulators assess solvency objectives through analysis of statutory financial statements including additional disclosures in the notes to the financial statements and management's discussion. Therefore, consistent with the primary objective of regulators current statutory reporting requirements stress measurement of a Company's ability to pay claims in the future.

The NAIC Accounting Practices and Procedures Manual, which codifies statutory reporting requirements states that the application of statutory accounting principles should be consistent with the concepts of conservatism, consistency and recognition:

- reasonably <u>conservative</u> over the span of economic cycles and, to the extent possible, prevent sharp fluctuations in surplus;
- <u>consistency</u> in development and application of accounting principles because of regulators' need for meaningful and comparable financial information
- <u>recognition</u> of assets and liabilities such that
  - the principle focus is the balance sheet with the income statement a secondary focus
  - assets should not be recognized on the balance sheet when the assets have economic value other than those which can be used to fulfill policyholder obligations or the assets are unavailable due to encumbrances or other third party interest
  - liabilities require recognition as they are incurred
  - revenues should be recognized only as the earnings process of the underlying underwriting or investment business is completed.

Additional regulatory objectives include

1. promoting stable and competitive insurance markets
2. ensuring fair and equitable treatment of consumers
3. maintenance and improvement of state regulation of insurance

The Work Group believes that current regulatory objectives of governance will remain under PBA although additional objectives may be appropriate such as aligning regulatory and company objectives. Also, regulators will likely need to make significant changes in their governance rules and processes in order to meet those objectives.

The Work Group recommends that regulators analyze regulatory objectives in light of PBA valuation, as well as the importance and emphasis placed on each objective. Regulators may want to consider objectives established by other organizations such as the IAIS, FSA and OSFI. With clearly stated regulatory objectives including the importance of each objective, the Work Group will then be able to provide analysis of how or if the current statutory concepts of conservatism, consistency and recognition can be achieved within a PBA framework. Some issues that the Work Group has identified with respect to these concepts include:

- Volatility of reserves and capital and surplus is likely to increase due to, for example, use of company experience, prudent best estimate assumptions and unlocking of assumptions in determining reserves. Therefore, the concept of conservatism as defined in statutory accounting may be more difficult to achieve.

- The definition of prudent best estimate assumptions must be considered in light of the regulatory objective to provide an "adequate margin of safety" and the statutory accounting concept of conservatism.

- The concept of consistency underlying statutory accounting includes comparability of insurer financial statements, which may also be more difficult to achieve because PBA valuation will require recognition in reserves and capital of the unique characteristics of an insurer's business and risk management of its business. A significant increase in disclosures may be needed under PBA valuation, including general risk management processes as well as assumptions and methods used in determining reserve and capital levels. Additional public disclosure needed under PBA valuation will be discussed in another key issue paper.

- The concept of recognition of assets and liabilities under PBA may need analysis. For example, if non-guaranteed revenues are allowed in developing reserve and capital levels, the current concept of recognition may not be met.

Company Objectives

A primary objective of insurers is the creation of insurer, creditor, investor, and policyholders (in the case mutual companies) wealth. This objective underlies current GAAP financial reporting requirements, which focuses on emerging earnings (matching revenue to expenses) and appropriate balance sheet accounting.
"Revisiting the Concepts", May 2005, FASB/IASB states that the overriding objective of GAAP reporting is "decision-usefulness", which is then further defined as reporting information that:

1. is useful for external users in making economic decisions. Users include investors, employees, lenders, suppliers, customers, governments, and the public who rely on the financial statements for information about a Company.
2. is useful for external users in assessing prospective cash flows and making economic decisions.
3. is about Company resources, claims to those resources and changes in them
4. has the characteristics of understandability, relevance, reliability (i.e. faithful representation) and comparability
    - understandability focuses on users who have a reasonable understanding of business and economic activities
    - relevance means that the information has the capacity to make a difference in decision
    - reliability or faithful representation means correspondence or agreement between an accounting measure or description and the economic resources and obligations that it is purporting to represent.
    - comparability is between companies and includes consistency from year to year.

Additional Company objectives include

1. assure compliance with state and federal laws and regulations
2. protecting and facilitating the exercise of stakeholders' rights
3. ensuring equitable treatment of all stakeholders
4. mitigating risk for creditors

The Work Group does not believe that company objectives of governance will change as a result of PBA valuation. Creation of insurer, creditor, investor and policyholder (in the case of mutuals) wealth will remain the primary objective of companies. However, under PBA valuation insurers will likely need to make significant changes in their governance rules and processes in order to meet their objective of complying with state laws and regulations. The changes in these rules and processes for company management and Board of Directors will be addressed in other key issue papers.

Benchmarking

Below are regulatory objectives from various authorities:

International Association of Insurance Supervisors (IAIS)

The IAIS objectives are to

- cooperate to ensure improved supervision of the insurance industry on a domestic as well as on an international level in order to maintain efficient, fair, safe and stable insurance markets for the benefit and protections of policyholders
- promote the development of well-regulated insurance markets
- contribute to global financial stability

Financial Services Authority (FSA)

The Financial Services and Markets Act 2000 requires the FSA to meet four statutory objectives:

- maintain confidence in the financial system
- secure the appropriate degree of protection for consumers;
- promote public understanding of the financial system;
- reduce the scope for financial crime

Office of the Superintendent of Financial Institutions (OSFI)
OSFI was created to
"contribute to public confidence in the Canadian financial system. Under our legislation, our mandate is to:

- Supervise institutions and pension plans to determine whether they are in sound financial condition and meeting minimum plan funding requirements respectively, and are complying with their governing law and supervisory requirements;
- Promptly advise institutions and plans in the event there are material deficiencies and take or require management, Boards or plan administrators to take necessary corrective measures expeditiously;
- Advance and administer a regulatory framework that promotes the adoption of policies and procedures designed to control and manage risk;
- Monitor and evaluate system-wide or sectoral issues that may impact institutions negatively.

OSFI's legislation has due regard to the need to allow institutions to compete effectively and take reasonable risks. Our legislation also recognizes that management, Boards of Directors and plan administrators are ultimately responsible and that financial institutions and pension plans can fail."

NAIC
The mission of the NAIC is to assist state insurance regulators, individually and collectively, in serving the public interest and achieving the following fundamental insurance regulatory goals in a responsive, efficient and cost effective manner, consistent with the wishes of its members:

- Protect the public interest;
- Promote competitive markets;
- Facilitate the fair and equitable treatment of insurance consumers;
- Promote the reliability, solvency and financial solidity of insurance institutions; and
- Support and improve state regulation of insurance.

Company Objectives Benchmarks
Organization for Economic Co-operation and Development (OECD)
Principles of Corporate Governance:

- Promote transparent and efficient markets, be consistent with the rule of law and clearly articulate the division of responsibilities among different supervisory, regulatory and enforcement authorities
- Protect and facilitate the exercise of shareholders' rights
- Ensure the equitable treatment of all shareholders, including minority and foreign shareholders. All shareholders should have the opportunity to obtain effective redress fro violation of their rights.
- Recognize the rights of stakeholders established by law or through mutual agreements and encourage active co-operation between corporations and stakeholders in creating wealth, jobs, and the sustainability of financially sound enterprises
- Ensure that timely and accurate disclosure is made on all material matters regarding the corporation, including the financial situation, performance, ownership, and governance of the Company
- Ensure the strategic guidance of the Company, the effective monitoring of management by the Board, and the Board's accountability to the Company and the shareholders

Other Governance Issues
Key Issue #3: Uniformity

This issue addresses uniformity in

- State adoption of laws, regulations etc.
- State's ongoing oversight of filing, certificate of valuation, state examinations etc.

This issue is still under study and below is a partial write-up.

Principles

- Effective use of resources for regulators and companies
- Consistent standards and processes

Assumptions/Interdependence

Conclusions/Recommendations

Analysis

Why is Uniformity Important? Uniformity is the key to the success of PBA –

- Without efforts to promote uniformity, PBA valuation will exponentially increase state variations because it:
  - Requires judgment (no more black-and-white rules)
  - Comes with additional governance processes (e.g., PBA certifications, PBA Review) which can increase variations exponentially
  - Is a paradigm shift which requires learning curves from different states
  - Is complicated and many aspects could cause misunderstanding and confusion when multiple states are involved
- Need to address uniformity from two fronts*:*
  - Uniform adoption of PBA laws and regulations
  - Uniform ongoing oversight: review, filing, certification of valuation, enforcement etc of PBA valuation

What Happens if we don't Get There?

- States
  - Significant resources to track, understand, communicate
  - Produce/require overlapping, time-consuming and complicated work
  - Resolve different conclusions among states
  - Concerns whether regulatory obligations are fulfilled when roles and responsibilities are not clear: e.g., SVL asks domiciliary state to issue certificate of valuation that meet the aggregate requirements of other states
- Industry:
  - Significant resources (may not be even doable) to track each state's requirements
  - Distraction from the PBA valuation work
  - Policyholders pay for resources consumed by the companies without obvious benefits

Where Are We Today?

Adoption of laws and regulations:

  - NAIC adopts model laws and regulations
  - State adopts a version of the NAIC models
  - Accreditation requires "substantially similar" however could be higher than the accreditation standards; not all NAIC laws and regulations are under the accreditation standards
- Ongoing filing, review and enforcement etc.
  - Company: may file a separate statutory statement, and Statement of Actuarial Opinion, in different states in which they do business; These filings reflect the different minimum reserve, format and other requirements, by jurisdiction
  - State of domicile: certifies the Company's annual valuation, as part of the certification of valuation process. This process currently has a lot of state variations (e.g., content, format, scope). In addition, most domiciliary states can't comply with SVL requirements for the certificate of valuation, which requires the

domiciliary state to attest the Company reserves are at least as great as the foreign states' requirements on an aggregated basis.
- Non-domiciliary states: Several states have separate and/or unique filing, review etc. requirements
- Financial examinations are generally conducted under a "zone" approach

How to Achieve Uniform Adoption

- Ideal Structure:

  - Identical language in each state's SVL to recognize PBA
  - Additional guidance, to define appropriate (uniform, examinable but flexible) standards for PBA, should be created outside of the SVL
  - Effective date: question of prospective/retrospective application of PBA?

- **Option 1:** Create a "manual" that functions like the current RBC instructions (i.e., a PBA Manual)

  - Pros:
    - Automatic and uniform adoption, including effective dates
    - Consistent regulatory adoption framework between RBC and reserves
    - Facilitates consistent requirements between RBC and reserves (e.g., governance for both)

  - Cons: Changes to SVL and other guidelines are needed Also, less control by individual states / states not involved with LHATF have less say

  - Questions about a PBA manual? Should we *just follow the RBC process?*

    - Who would be charged with writing/maintaining the PBA manual? How often would it be updated?
    - How much detail would it need to contain to assure uniform standards for PBA?
    - Could/should the process of adopting the manual follow the current RBC process? within the NAIC and at the state level
    - Is there another place in the regulatory hierarchy that the manual could be inserted?
    - Would states be encouraged or required to adopt the PBA manual without modifications?
    - How would "unlawful delegation" issues be addressed?
    - Where would the PBA manual be published/located?
      - In the annual statement instructions?
      - In the Accounting Principles and Procedures manual?
      - In a model regulation?
      - Other?

- **Option 2:** Accreditation standards: by having accreditation depend on <u>unmodified</u> adoption, versus the "at least as stringent" approach used today

  - Pros: Accreditation is an existing process

  - Cons: Not all states are accredited

How to Achieve Uniformity in Ongoing Oversight

- **Option 1**: **A state-by-state filing: reserve certification, and examination "with modifications" process.** This is a status-quo option (continue today's framework.)

  - Pros:
    - Maintains state-by-state control over Company solvency, adequacy of reserves
    - Requires least amount of changes to existing laws, regulations etc.

  - Cons:
    - Demands significant redundant effort for both regulators and companies
    - Results in resources strains for many insurance departments to review many companies' valuations
    - Leads to substantial additional cost which will be passed onto policyholders
    - Open to competing conclusions about the acceptableness of the valuation
    - The demand of PBA valuation may bog down and even paralyze the PBA valuation in the future

- Domiciliary state may not be currently complying with SVL (which requires certifying all foreign states' requirements)
- All of the above exist today but substantially magnified under the PBA (e.g., what if states can not agree which PBA Reviewer to hire)

- **Option 2**: **A state-of-domicile based filing, certification and examination process.** Other states will rely on the domiciliary state without modifications and/or further review.

  - Pros: Potentially much more efficient than Option 1
    - Domiciliary state is likely to be most familiar with their companies' products/businesses and their risks
    - Domiciliary state may also have more consistent contact with the companies' actuarial staffs – and the future PBA Reviewers
    - Avoids differences of opinion on the acceptability of the PBA valuation

  - Cons: Still can have state variations
    - Domiciliary state can still have variations; If so,
    - Non-level playing fields for companies
    - Companies my set up specific companies for certain type of businesses etc.
    - Domiciliary state may not have resources
    - Non-domiciliary states may still ask for additional analyses, or impose other requirements, even if they accepted the basic valuation

- **Option 3: Centralized filing, certification and examination**
  - Variation 1: A central "**Reserve Valuation Office**" (RVO) which would actually perform the review of the PBA valuation. RVO would have to be recognized in the law, so that states could accept valuations reviewed by it.
    - Pros:
      - Potential efficient use of resource
      - Less state variations
      - Would avoid differences of opinion on the acceptability of the PBA valuation
      - Is consistent with the concepts of uniformity and efficient use of resources
    - Cons: a lot of upfront and ongoing management work/coordination
      - How would the resources be assembled to staff the RVO? Who would supervise the RVO?
      - How large would the RVO need to be, to handle all companies? Would a centralized RVO be "close enough" to the products/risks of each Company?
      - To what extent would the RVO rely on the PBA Reviewers?
      - Again, would various states impose additional requirements beyond the basic valuation?
      - Loss of control by the states
      - Growing NAIC controls
      - Legal status of RVO

  - Variation 2: an inter-state/zone filing and certification approach presents pros and cons similar to Variation 1:
    - How would the zones be determined? Would they be "permanent"?
    - Would each state help staff the zone? Would this staff be "permanent"?

- **Other Options**:
  - A central RVO office could be charged with developing review/examination standards, and providing technical support for either a state-of-domicile approach or a zone approach
  - Consistent with the concepts of uniformity and resource efficiency but keeps the review process "closer to home"
  - Different approaches could be used for larger vs. smaller companies – e.g., a state of domicile approach for small companies, and a "zone" approach for medium sized/regional companies, and a "central" approach for large companies
  - Different approaches could be used for "hot" lines of businesses (although what's hot will be difficult to define, and will change over time)

Other Governance Issues
Key Issue #4: Role of the Board in the Principles-based Approach

This Key Issue explores the role of the Board of Directors of a Company, as part of the governance structure underlying a Principles Based Approach.

Principles:

A PBA valuation demands an effective governance structure at the Company level. Therefore, The Board of Directors of a Company using a PBA valuation for establishing some or all of its reserves should have a well-defined role in overseeing the process used to establish adequate reserves. Ideally, this oversight should be exercised by Boards with independent directors.

Assumptions/Interdependence

The exact role that the Board of Directors will play, and how that role will be executed, will depend on a number of other factors, such as the following:

- The PBA valuation is integrated with the rest of the Company's risk management process
- The role of the Appointed Actuary vis-à-vis the actuaries who perform the PBA valuations. This paper assumes that a single Appointed Actuary provides the results of PBA valuation(s) to the Board: See Other Governance Issues KI#1
- The Board of Directors or its designees hire the PBA Reviewer: See PBA Review KI#2
- The exact scope/content of the peer review: See PBA Review KI#3

Recommendations/Conclusions

There is a fundamental question related to insurance companies that are part of a bigger holding Company structure: which Board is responsible for governance related to PBAs? The insurance subsidiaries of the holding Company often have their own (internal) Boards of Directors typically consisted of only the members of management; independent directors may sit only on the holding Company Board. The current thinking of the Work Group is that the better governance structure would be to have the independent directors designated as the "Board" that oversees the PBA valuation, given the linkage of Company's risk management oversight process. The Work Group will explore this issue further.

For mutual insurance companies, the composition of the Board varies, depending on the Company's historic practices and (in some cases) on Board composition that is mandated by state law or regulation. This paper does not address any unique issues related to mutual Company Boards.

Under a Principles-based Approach, the Board of Directors, or a committee thereof, should have the following responsibilities:

- To appoint a qualified actuary (Appointed Actuary) to render an actuarial opinion on the Company's reserves, including those reserves established using a PBA approach
- To hold the Appointed Actuary accountable for adhering to the letter and the spirit of legal, regulatory, and professional reserve valuation requirements
- To assure that the Appointed Actuary has the necessary resources to fulfill his or her responsibilities
- To receive directly from the Appointed Actuary reports on the adequacy of the Company's reserves, and to review the reserve levels of the Company, in light of the Board's knowledge and understanding of the Company's markets, products and risks. These reports should contain a description of the methods and assumptions used to establish the Company's reserves, including a description of how these methods and assumptions are similar to, or different from, other reports that the Board receives on the Company's risks.
- To oversee an effective management control structure over the process used to establish reserves
- To receive directly, and to review, the report of the PBA Reviewer on his/her evaluation of the appropriateness of the reserve valuation that has been performed.

The PBA Review KI#8 recommends additional roles for the Company Board relating to hiring, discharging and working with the PBA Review.

Some other implications of the above recommendations are:

One of the concerns expressed in the Moody's reports on corporate governance was the lack of industry knowledge and financial knowledge on some Boards. Moody's also noted that the SEC now requires the audit committee of the Board to have at least one member who is designated as a "financial expert." In general, members must be "financially literate" which means "the ability to read and understand a set of financial statements of breadth and complexity similar to that of the issues expected to be raised by the issuer's financial statements."

Similarly, the IAIS principles (in particular, Insurance Core Principle 7 (ICP 7) say that committees of the Board should be comprised of members possessing "knowledge and understanding." The NAIC Risk-Focused Financial Surveillance paper presumes the same credentials.

Therefore, the above recommendations imply that the Board (or committee of the Board) that receives and reviews actuarial reports on reserves should have at least one member who is an insurance/actuarial/investment expert, who has the ability to read and understand actuarial reports "of the breadth and complexity similar to that of the issues expected to be raised" by the Company's actuarial reports.

Analysis

The conclusions above are based on an analysis of these questions:

- What is the role of a Company's Board of Directors today in the reserve valuation process?
- Should the role of the Board change in a PBA environment?
- What alternatives should be considered in making recommendations related to the role of the Board?
- What considerations/precedents should be taken into account in formulating these recommendations?
- What are some of the implications of these recommendations?

Current situation

Under the current model valuation law and regulations, there is a requirement that a Company's Board of Directors, or its representative, appoint an "Appointed Actuary" to render an annual opinion on the adequacy of the Company's reserves, in light of the assets held to support them. The AOMR outlines various requirements that the Appointed Actuary must meet; these requirements are further defined by qualification standards published by the Actuarial Standards Board.

The language of the reserve opinion itself is described in the AOMR reg. There is no requirement that the reserve opinion be addressed to the Company's Board of Directors, nor is there a legal requirement that the opinion be delivered to, or reviewed by the Board. In fact, there are no other explicit requirements in the laws or regulations of the states that reserve bases, or changes in reserve bases, be approved by the Board of Directors.[1] Therefore, there seems to be considerable leeway for each Company to decide exactly how (or whether) the Board monitors the adequacy of a Company's reserves.

Changes with respect to the role of the Board

There are a number of alternatives for how the role of the Board could be defined in a PBA environment:

- Continue the current governance practice—i.e., require the Board to appoint a qualified Appointed Actuary and allow each Company the discretion to define the role of the Board in monitoring reserves.
- Build a requirement into the regulatory structure (i.e., into the valuation law or supporting regulations) that mandates a more specific, but still somewhat limited role for the Board in monitoring the adequacy/reasonableness of reserves.[2] For example, there might be a requirement that the Board (or Board committee) receive and review reports on adequacy of reserves.
- Build a requirement into the regulatory structure that says that the Board must play an active role in reviewing the reserve valuation, including the processes used to establish the valuation. This would be somewhat similar to the requirement that the Board of a public Company sign a Company's 10-K.

[1] There is a requirement in many states' laws that the Board annually apportion divisible surplus for payment of dividends to policyholders. Indirectly, this requirement implies that the Board is satisfied that such surplus can be safely distributed to policyholders because reserves are adequate.
[2] This report does not take a position on the exact language of any PBV opinion, if it is separate from the current Appointed Actuary opinion.

There are a number of factors that should be considered in making a recommendation on this question. The first set of factors relates to differences between the current reserve valuation process and a PBA process. The PBA process could be perceived as more judgmental and more volatile, and therefore more worthy of Board attention:

- There will be a shift in emphasis from following rules to measuring risks.
- There may not be a safety net akin to today's formula reserves.
- There may be more discretion exercised by the Appointed Actuary as to where to set the level of conservatism for reserves—CTE 60? CTE 70? CTE 80?
- The reserve testing/AAT process may be different from today's process.
- Assumptions going into reserve determinations will be updated frequently, and may be based in whole or in part on Company experience.
- There may be more potential for "management bias" to be introduced into the process of establishing reserves.

The above analysis suggests that the "Board" that should be responsible for overseeing PBA valuation should be the holding company Board of a group of insurance companies, rather than the boards that may exist at the insurance company subsidiary level. In a typical holding company structure, the independent directors of the enterprise sit as the Board of the holding company; the boards of the insurance company entities usually consist only of members of management.

If the PBA valuation is expected to be well integrated with the rest of the company's risk management process, then the oversight of PBA should probably take place at the same "level" as the oversight of the company's risk management framework and process, which typically occurs at the holding company level. Otherwise, it will be difficult to distinguish between the role of the Board and the role of management. In addition, the benchmarking referenced above indicates that at least one of the US rating agencies, and the IAIS, believe that a more direct line of sight between the actuary and the finance/audit committees of the Board would lead to a stronger governance structure. The NAIC Risk-Focused Surveillance Framework also charges the Board with understanding the risks of the company and how they are measured. We believe that a PBA valuation is an aspect of risk measurement, and therefore the (non-management) Board should have a role in oversight.

The challenge, of course, will be finding board members with the kind of insurance expertise that will enable them to be most effective.

<u>Benchmarking</u>

In addition, there are other considerations that should be taken into account:

- Moody's has already commented on the role of the Appointed Actuary in its series of publications on corporate governance. Moody's asserts that the chief actuary today is generally accountable "solely to senior management," with routine presentations to finance/audit committees of the Board. Their report says that there is an argument that the Valuation Actuary role should resemble the internal audit function more closely, and link more strongly to the Board and its committees. Moody's also endorses the idea of an independent peer review of the Company actuary's methods and assumptions, with the report of the peer reviewer going directly to the Board. Nonetheless, such reviews "should not diminish the accountability of the chief actuary" for the Company's actuarial assumptions.
- The IAIS has also taken a position on the relationship between the actuary and the Board. ICP 9 says that the responsible actuary should have direct access to the Board or a committee of the Board and should report relevant matters on a timely basis. This same principle charges the Board with identifying officers with responsibility for ensuring compliance with relevant legislation.
- ICP 10 charges the actuary with identifying, measuring, monitoring and controlling risks on an ongoing basis and developing actuarial reports for the Board and management. (needs additional review) In addition, it charges the regulator with requiring that actuarial reports be made to the Board and management.
- ICP 20 requires the Board to "establish adequate technical provides" and other liabilities, based on sound accounting and actuarial principles.
- Guidance Paper 7 would give the Board authority to replace a "responsible actuary."
- The current definition of a Principles Based Approach has a heavy emphasis on consistency with a Company's overall risk management processes. While our group has not done an analysis of what this means, the rating agencies' view of effective risk management includes significant involvement of the Board of Directors in overseeing a Company's risk management practices. Therefore it seems logical that part of that oversight would include some kind of direct reporting to the Board on reserves.
- The recently adopted NAIC Risk-Focused Financial Surveillance Process also puts more onuses on the Board of Directors. The Board is charged with understanding the risks of the Company; being knowledgeable about the

methods used to measure those risks; assuring that the proper control structure is in place; and assuring that adequate, and adequately credentialed staff is supervising risk activities.

- Need for further research – what is the role of the Board in Canada?
  What comments on this subject are included in the Morris report?
  What exactly is included in Basel II related to the role of the Board?