



AMERICAN ACADEMY *of* ACTUARIES

**Report of the American Academy of Actuaries' Reinsurance Work Group
Presented to the National Association of Insurance Commissioners'
Life and Health Actuarial Task Force (LHATF)**

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Reinsurance Work Group

Sheldon Summers, F.S.A., M.A.A.A., Chair

Clifford Angstman, F.S.A., M.A.A.A.
Mike Boerner, A.S.A., M.A.A.A.
Larry Carson, F.S.A., M.A.A.A.
Richard Daillak, F.S.A., M.A.A.A.
Arnold Dicke, F.S.A., M.A.A.A., E.A., F.C.A.
Vincent Pat Gallagher, A.S.A., M.A.A.A.
Dean Nelson, A.S.A., M.A.A.A.
Diane Wallace, F.S.A., M.A.A.A.

Mary Bahna-Nolan, 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.
Michael Davlin, F.S.A., M.A.A.A.
Alan Dickey, F.S.A., M.A.A.A.
Mary Ellen Luning, F.S.A., M.A.A.A.
Wayne Stuenkel, F.S.A., M.A.A.A.

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To: Life and Health Actuarial Task Force

**From: The American Academy of Actuaries Life Reinsurance Work Group
Sheldon Summers, Chair**

Re: Risk Transfer requirements under PBR

The American Academy of Actuaries Life Reinsurance Work Group, aided by its Risk Transfer Subgroup has met weekly for several months. This report summarizes our discussions and conclusions.

Paradigm Shift

With a new Life Principles-based Reserve approach (“PBR”), there is a need for a new life reinsurance risk transfer paradigm. Instead of defining risk transfer through reinsurance agreement structure requirements, accounting guidance can take the form of regulatory and/or professional standards on how reinsurance transactions flow through the PBR models. The question “is there risk transfer?” is no longer the correct question, but rather the correct question is “how is the reinsurance agreement accounted for in financial statements?” **Under PBR, the goal is to properly value reinsurance agreements in financial statements rather than to limit their structures to fit a rules-based system.** The only questions should be “*what is indemnified?*” and “*what’s that worth?*” given given statutory stochastic assumptions.

A PBR is fundamentally different from the existing rules-based statutory valuation framework. Currently, reserves are calculated using expectations of future experience based on a limited number of factors that are set by law, primarily mortality and interest rates. A reinsurance reserve credit is taken for the reinsured share of the calculated liability. In reality, however, the cash flows under the reinsurance agreement may behave very differently than the reserve assumptions presume. Various investment, persistency, expense or recapture provisions may exist in reinsurance agreements that are not contemplated in the reserve calculation.

The approach to this dilemma under the existing framework has concentrated on the concept of “risk transfer.” The NAIC Life and Health Agreements Model Regulation (“the Model Regulation”) lists specific limitations on transaction structures that are necessary in order for a reinsurance agreement to meet the requirements of risk transfer. If it does, then financial statement credit is 100%. If it doesn’t, then no credit is allowed.¹ This approach was used because it was not possible to reflect variations in transaction structure in the current life valuation framework. The current structure-based risk transfer requirements do not contemplate the complexity of evolving reinsurance structures that can be

¹ The Model Regulation and the Accounting Practices and Procedures Manual (APPM) currently have inconsistent consequences for non-compliance with the risk transfer requirements. The penalty for non-compliance in the Model Regulation is that the ceding insurer may not “...reduce any liability or establish any asset in any statutory financial statement...” The penalty for non-compliance in the APPM is that “...the agreement shall follow the guidance for deposit accounting...” For the purposes of this report, the language used in the Model Regulation as the consequence for non-compliance will be used.

developed for optimum risk management. Instead, the requirements were established in a time when analytical tools and technology were less refined, and comparability among companies using a bright-line test was a more important regulatory goal than improved risk management. The result is that insurers may not receive financial statement benefit from otherwise desirable reinsurance transactions, and they are less likely to use these risk management techniques.

The methodology for PBR proposed by various work groups of the American Academy of Actuaries Life Practice Council requires the development of models (“PBR models”) to project future income and obligations, using assumptions that take into account a company’s expected results on all aspects of a block of business, with margins for uncertainty. Cash flows expected to be received from or paid to reinsurers under reinsurance agreements must be included in the PBR models. The assumptions for reinsurance are to be consistent with the other assumptions used by the company for the business reinsured.

Under a Life PBR, actuaries will be valuing future obligations of the company net of reinsurance, taking into account any pattern of underlying benefits and reinsurance provisions that might exist. This will be done under multiple scenarios that project the actuary’s Prudent Estimate of future cash flows using the relevant and material facts known about the expected behavior of policyholders, invested assets and reinsurance agreements.

The advantage of this new life reinsurance risk transfer paradigm is that reinsurance agreements may be structured as complex financial transactions meeting the risk management goals of the parties and may still be reflected appropriately in calculating reserve credit. Some policyholder benefits may be reimbursable by the reinsurer, and others not. The reinsurer may be fully obligated to bear losses, or its liability may be capped. The reinsurance may be short- or long-term. As long as the actual terms of the reinsurance agreement are built into the PBR models, the agreement will be properly valued within the reserve calculation.

Review of Current Risk Transfer Regulation

The Life Reinsurance Work Group has reviewed the Model Regulation in light of the above conclusions. The Work Group’s recommendations regarding the various risk transfer requirements are summarized below, and discussed in detail in the appendix.

NOT NEEDED SINCE IT IS DIRECTLY REFLECTED UNDER PBR

Section 3:	Scope
Section 4 A 1:	Expense Allowances
Section 4 A 3:	Reimbursement for negative experience
Section 4 A 5:	Payment of amounts other than from income on the reinsured policies
Section 4 A 6:	Transfer all significant risks
Section 4 A 7(a):	Transfer or segregate assets on interest-sensitive business
Section 4 A 7(b):	Use of portfolio rate to transfer investment risk on non interest-sensitive business
Section 4 A 11:	Principal purpose of producing surplus aid catch-all

Section 4 B: Commissioner authority to approve non-complying transactions
Section 4 C (1): Filing of inforce transactions
Section 4 C (2): Amortization of relief on inforce transactions

NEED MODIFICATION UNDER PBR

Section 4 A: Penalty for non-compliance
Section 4 A 2: Deprivation of Surplus
Section 4 A 4: Automatic recapture or termination

SHOULD CONTINUE UNDER PBR

Section 4 A 8: Required frequency of settlements; Cash settlements required
Section 4 A 9 & 10: Reqs & Warranties
Section 5 A: Letter of Intent or Agreement signed by “as of date”
Section 5 B: Final agreement signed within 90 days
Section 5 C (1): Entire Agreement clause required
Section 5 C (2): All changes through signed amendment

Issue Discussion

1. Location of Requirements in a PBR Regulatory Structure

Current risk transfer requirements reside in a Model Regulation first adopted by the NAIC in 1985, and amended in 1992, which has been substantially adopted by all states. When statutory Codification was adopted effective in 2001, the Model Regulation language was included in Appendix A-791 to SSAP 61 of the NAIC Accounting Practices and Procedures Manual (APPM). In effect, the rules were again adopted through state-by-state legislation of the requirement to follow the APPM (unless a state had regulation otherwise in conflict). This adoption effectively eliminated the need for most states to continue the Model Regulation, since state variations from the Model Regulation did not exist for most states. However, the Model Regulation has been repealed in only one state so far (TX).

An approach similar to the APPM is now also being discussed for the new Valuation Manual to support PBR. Enabling changes to the Standard Valuation Law (SVL) will need to be passed by the states, requiring compliance with an NAIC maintained Valuation Manual. This approach allows more flexibility and timeliness in updating requirements going forward.

The Life Reinsurance Work Group believes that the requirements for including reinsurance in valuation and accounting no longer require a Model Regulation. If the Model Regulation is repealed, business not subject to a PBR will continue to follow the existing rules currently in SSAP 61 and A-791 of the APPM. Assuming the new SVL makes it clear that business subject to PBR must follow the Valuation Manual, requirements for the treatment of reinsurance in calculating reserves for business valued under PBR can be included in the new Valuation Manual. SSAP 61 and Appendix A-791 of the APPM would also need to be modified to clarify that the risk transfer requirements apply only to the business valued under existing reserve rules and to provide the proper guidance for reinsurance accounting for business subject to PBR.

2. *Consequence of Non-Compliance*

The Model Regulation and the APPM currently have inconsistent consequences for non-compliance with the risk transfer requirements.

- The penalty for non-compliance in the Regulation is that the ceding insurer may not “...reduce any liability or establish any asset in any statutory financial statement...” This penalty is commonly referred to as *denial of reserve credit*. The Regulation does not apply at all to assumed reinsurance.
- The penalty for non-compliance in the APPM is that “...the agreement shall follow the guidance for deposit accounting.” Any such agreement must be accounted for using deposit accounting by both the ceding and assuming companies. Deposit accounting results in the agreement having no impact on net income or net worth until expiry.

The current life and annuity PBR exposures call for including reinsurance in the PBR models if the agreements meet the requirements for accounting as reinsurance. The life insurance PBR exposure also requires the inclusion of reinsurance not meeting the requirements for accounting as reinsurance if the inclusion increases the reserve. **The Life Reinsurance Work Group recommends the elimination of the distinction between agreements meeting requirements for accounting as reinsurance and those that do not, and inclusion of all reinsurance agreements in the PBR models.** The current risk transfer requirements that need to be continued under PBR will be addressed by including specified conservative modeling treatment in the Valuation Manual when such reinsurance provisions are present. The APPM would also be revised to eliminate Deposit Accounting for business subject to PBR.

Reasons include:

- The actual terms of the reinsurance agreement will be built into PBR models, and appropriate, consistent additions or reductions in net reserve requirements will result for both ceding and assuming companies.
- If non-complying agreements are included in PBR models when they increase reserves, and deposit accounting is used otherwise, ceding and assuming companies will likely have to use different accounting treatment on the same agreement.
- If most of the reinsurance structure requirements are eliminated as we recommend, there will be few, if any, non-complying agreements.
- Allowing a non-complying agreement to avoid PBR modeling could be less conservative, and may result in attempts to actually create non-compliance so the agreement escapes modeling.
- Other remedies, such as disclosure and specified modeling, could be implemented for agreements containing reinsurance provisions that present public policy concerns or are difficult to model.

3. *Specified Provisions*

Current life reinsurance rules do not prohibit or require any particular reinsurance provisions. Companies are generally free to enter reinsurance agreements with any terms they choose, subject only

to their charter and license limitations. The current consequence of non-compliance with life risk transfer requirements is that deposit accounting is required instead of reinsurance accounting. As such, the limitations placed on reinsurance agreements in the current risk transfer regulation can be considered **inducements** rather than requirements. Companies comply with all the rules in order to obtain reserve credit, whether or not the rules really concern risk transfer or affect proper valuation.

A number of the rules that are recommended by the Life Reinsurance Work Group for continuation under PBR are viewed by the Work Group as having been put in place by the NAIC to address public policy objectives. The Work Group believes that it is difficult to determine a regulatory approach for prohibiting or requiring certain reinsurance provisions. There is no “home” in the current legal structure for such rules, and it is not clear what appropriate penalties there would be for violation. It may also be inappropriate to regulate contract language between sophisticated insurers. However, it may also be difficult to determine an appropriate way to include requirements under PBR to properly reflect reinsurance provisions such as these. Simply designating the treaties as non-complying and excluding them from PBR models may not be conservative and therefore does not seem to be the right answer.

The Life Reinsurance Work Group recommends that the issues identified below be handled in the PBR framework by requiring disclosure of treaties containing specified provisions and introducing appropriate required modeling conservatism to properly value such provisions, rather than prohibiting the provisions or inducing behavior through the use of deposit accounting requirements.

- Signatures by “as of date” of the statement (Sections 5.A and 5.B)
 - Include all treaties in cash flow models that are signed; that have a binding letter of intent (within the first 90 days); and otherwise if a legal obligation exists and including the agreement will increase net liabilities
- Termination provisions that are triggered by insolvency or ratings downgrades (see the discussion under Section 4.A.(2) in the Attachment)
 - Modeling would require assuming the event caused by the trigger has occurred, or has not occurred, whichever results in the greatest net liability
- Infrequent settlement periods or long delays in cash settlements (Section 4.A.(8))
 - Liquidity risk margins should be required for cash flows arising from infrequent reinsurance settlements
- Representations or Warranties that could result in voiding the contract (Section 4.A.(9))
 - Modeling should assume that the breach occurs immediately, or does not occur, whichever results in the greatest net liability
- No “Entire Agreement” or “Amendments in writing” clauses (Section 5.C.(1) and 5.C.(2))
 - The model should include cash flows representing the company’s obligations under the agreement but not the obligations of the other party.

4. Stochastic Modeling of Underwriting Risks

The current PBR proposal requires stochastic modeling of investment related risks only. **The Life Reinsurance Work Group recommends that PBR be modified to require in certain situations the stochastic modeling of underwriting risks, such as mortality, morbidity or lapse, so that appropriate assumptions can be developed.** One example of a situation that may require more robust modeling of underwriting risk is when a reinsurance treaty covers tail risk. A single point assumption may not adequately model the impact of the reinsurance on expected net liability in a range of scenarios. Other non-reinsurance situations may also exist for which stochastic modeling of underwriting risks is indicated.

The Work Group understands other Academy groups are looking into this issue (e.g., the AIMS subgroup of the SVL II WG and the ARWG are discussing various topics involving stochastic assumptions). Any recommendation should be coordinated with these other groups and would need to be more specific about what situations would require this and how stochastic modeling would be used. It might also make sense to “encourage” stochastic modeling of assumptions by making it an option, but requiring conservative assumptions when it is not used.

Summary

The Life Reinsurance Work Group believes these proposals will create an appropriate valuation of life reinsurance related liabilities while enhancing robust risk management techniques. The Life Reinsurance Work Group has drafted suggested language in the Valuation Manual to implement these proposals. The Work Group will also propose changes to the Accounting Practices and Procedures Manual to accommodate the changes.

APPENDIX

Black is the original text of the NAIC Model Regulation

Red is Comments from the American Academy of Actuaries Life Reinsurance Work Group analyzing current risk transfer requirements under principles-based reserve approaches

Blue is from A-791 of the NAIC Accounting Practices and Procedures Manual

LIFE AND HEALTH REINSURANCE AGREEMENTS MODEL REGULATION

Section 3. Scope

This regulation shall apply to all domestic life and accident and health insurers and to all other licensed life and accident and health insurers which are not subject to a substantially similar regulation in their domiciliary state. This regulation shall also similarly apply to licensed property and casualty insurers with respect to their accident and health business. This regulation shall not apply to assumption reinsurance, yearly renewable term reinsurance or certain nonproportional reinsurance such as stop loss or catastrophe reinsurance.

1. Reserves should continue to be calculated using the rules in effect for the issue date of the original policy, regardless of the effective date of the reinsurance. The current risk transfer rules should continue to apply to valuation of reinsurance on policies subject to the old reserve requirements, and the new rules should apply to policies subject to PBR. More thought will be needed to determine whether transitional rules are required (e.g. through the Valuation Manual or through practice notes).
2. Under PBR, there is no need to differentiate the requirements for indemnity reinsurance by type of reinsurance (e.g., YRT, coinsurance, etc.) Therefore, there is no reason to exempt YRT under PBA requirements.
3. Assumption Reinsurance

We have discussed two types of block “sales”.

- Under true assumption reinsurance, the policy contract is novated to replace one insurer with another. This is not really reinsurance, because the policies become “insurance” of the new carrier. Thus, the policies will no longer be shown on the books of the seller, and normal PBA rules will apply to the policies at the new carrier. It should be pointed out that the rules that apply shall be based on the issue date of the original policy.
 - Otherwise, a sale may be accomplished through cash coinsurance (perhaps with an administrative management agreement). This is just a typical indemnity reinsurance transaction, and should be treated no differently than any other indemnity coinsurance.
4. Catastrophe & Stop Loss Non-Proportional Reinsurance

This type of reinsurance covers aggregate results rather than individual policy results. Existing guidance uses a principles based approach to determine any appropriate reserve credit for the reinsurance treaty over and above prepaid premium. Under PBR, the question is whether similar aggregate reserve credits should be separately calculated, or whether, instead, the assumptions for valuing individual policies should be adjusted to reflect the existence of the aggregate reinsurance.

Section 4. Accounting Requirements

A. No insurer subject to this regulation shall, for reinsurance ceded, reduce any liability or establish any asset in any statutory financial statement filed with the Department if, by the terms of the reinsurance agreement, in substance or effect, any of the following conditions exist:

This language is inconsistent with SSAP 61 in the APPM. SSAP 61 refers not to denial of reserve credit but to denial of “reinsurance accounting treatment.” Under SSAP 61, if the rules are not met, then deposit accounting guidance must be followed, and the above language is inconsistent with deposit accounting. Current PBR exposures also reference reinsurance accounting instead of “reserve credit”. Therefore, SSAP 61 and Appendix A-791 should be corrected accordingly.

(1) Renewal expense allowances provided or to be provided to the ceding insurer by the reinsurer in any accounting period are not sufficient to cover anticipated allocable renewal expenses of the ceding insurer on the portion of the business reinsured, unless a liability is established for the present value of the shortfall (using assumptions equal to the applicable statutory reserve basis on the business reinsured). Those expenses include commissions, premium taxes and direct expenses including, but not limited to, billing, valuation, claims and maintenance expected by the company at the time the business is reinsured;

This provision is not necessary under PBR since any shortfall would be picked up by the PBR model, and an appropriate liability for the shortfall established. Differences between the current Prudent Estimate of future expenses and expense allowances payable by the reinsurer would be reflected in the ceding company’s Stochastic Reserve and Deterministic Reserve calculations.

The Standard Scenario in the current exposure of AG VACARVM does not pick up either the expenses or any reinsurance expense allowances. Therefore, this requirement may need to stay in place for contracts falling under AG VACARVM. An alternative would be to eliminate this requirement for PBR and add a provision in the Standard Scenario calculation for AG VACARVM to pick up any shortfalls in the reinsurance allowances.

(2) The ceding insurer can be deprived of surplus or assets at the reinsurer's option or automatically upon the occurrence of some event, such as the insolvency of the ceding insurer, except that termination of the reinsurance agreement by the reinsurer for nonpayment of reinsurance premiums or other amounts due, such as modified coinsurance reserve adjustments, interest and adjustments on funds withheld, and tax reimbursements, shall not be considered to be such a deprivation of surplus or assets;

Note: The following discussion also covers the issues related to item (4) below, which is the requirement for no automatic recapture by the ceding company.

Some implications of this requirement can be removed under PBR, and some should continue.

This requirement, and the requirement against automatic recapture in item (4) below, essentially prohibits reinsurance accounting for reinsurance which terminates automatically or upon the occurrence of some event, or terminates at the option of the reinsurer. Events and options that can be directly and effectively modeled within the PBR (including options that can be addressed by the “knowledgeable counterparty” language) should no longer be prohibited, except when necessary to meet public policy concerns. More guidance is needed to help the actuary determine which situations can be effectively modeled and which cannot.

Examples of situations that can be modeled include:

- a scheduled termination or recapture at a “specific point in time”
- an automatic or optional termination or recapture tied to the emerging experience of the underlying reinsured book of business, such as when an experience refund account goes to zero

- an automatic or optional termination or recapture based on the size of the business remaining in force

Examples of situations that may be difficult to model include:

- an automatic or optional termination or recapture tied to solvency or ratings change [**Note: this extends the current rules since a ceding company could recapture at its option a treaty tied to solvency or a ratings change of the reinsurer within the current requirements.**]
- an automatic or optional termination tied to the performance of other affiliates, or the emerging experience of other related business arrangements

It may also be important to keep a requirement discouraging certain triggers due to a public policy concern, such as ratings triggers.

Q&A from A-791

Appendix A-791 of the APPM addresses two additional interpretations derived from this requirement that can be modified under PBR.

Q – With regard to existing business, should the coinsurance reserve percentage or the coinsurance reserve amount not be allowed to increase in a combination coinsurance/modified coinsurance treaty? How would the rule be applicable to the difference between the total reserve and the amount of funds withheld in a coinsurance with funds withheld treaty?

A – Under a combination coinsurance/modified coinsurance (co/modco) arrangement the ceding company and the reinsurer both establish reserves for future claim payments. Treaty provisions which adjust the reserves each party holds in lieu of transferring funds owed to the reinsurer are acceptable. However, adjustment of reserves in lieu of payment when funds are due to the ceding company is a violation of the accounting requirements since it is a depletion of the ceding company's assets. In other words, statutory gains can be used to increase the modified coinsurance reserve but statutory losses cannot be used to reduce the modified coinsurance reserve. This is the case even if the agreement provides for this adjustment at inception and never requires a payment to be owed by the reinsurer.

Under a coinsurance with funds withheld treaty the reinsurer establishes the entire amount of reserve liability on its share of reinsured policies, but the ceding company withholds a portion of the reinsurer's assets typically in an amount less than the reserves, to offset future obligations. Provided the withheld assets are not withheld for any purpose other than the payment of future claims, it is not a violation of the accounting requirements for the reinsurer to require full use of such withheld assets for the payment of claims prior to using any other assets owned by the reinsurer.

Since PBR measures cash flows, and the cash flows are comparable between coinsurance, co/modco and CoFW, there seems to be no reason to differentiate the requirements on these different reinsurance structures.

A - Paragraph 2. b. disallows reinsurance credit if the ceding company can be deprived of assets at the reinsurer's option or automatically upon the occurrence of some event. Thus, a provision in a coinsurance with funds withheld or modified coinsurance treaty which unilaterally or automatically allows the reinsurer to convert the treaty to coinsurance at some later date would be of concern. Although the parties could have entered a coinsurance agreement at inception, regulators are concerned that the reinsurer would take invested assets from the ceding company at a time which would be to the detriment of the ceding company's policyholders. Therefore, a conversion provision will not violate paragraph 2. b. only if all of the following are met:

- i) the triggers for conversion are limited to ceding company violations of treaty provisions, including complying representations and warranties; the occurrence of a violation has been determined; and the ceding company has been given an opportunity and refuses to promptly remedy the violation;*
- ii) the conversion is structured so that the surplus of the ceding company will remain unchanged immediately following the conversion;*

- iii) *the invested assets to be transferred upon conversion are less than or equal to the modco reserve, in the case of modco or co/modco, or to the Funds Withheld, in the case of coinsurance funds withheld, and have been maintained in a Trust or Escrow Account since inception of the agreement; and*
- iv) *the reinsurance complies with Credit for Reinsurance requirements (see Appendix A-785) immediately upon conversion.*

This limitation should be removed if PBR would be able to model the conversion as discussed above under terminations and recaptures.

(3) The ceding insurer is required to reimburse the reinsurer for negative experience under the reinsurance agreement, except that neither offsetting experience refunds against current and prior years' losses under the agreement nor payment by the ceding insurer of an amount equal to the current and prior years' losses under the agreement upon voluntary termination of in force reinsurance by the ceding insurer shall be considered such a reimbursement to the reinsurer for negative experience. Voluntary termination does not include situations where termination occurs because of unreasonable provisions which allow the reinsurer to reduce its risk under the agreement. An example of such a provision is the right of the reinsurer to increase reinsurance premiums or risk and expense charges to excessive levels forcing the ceding company to prematurely terminate the reinsurance treaty;

The Life Reinsurance Work Group recommends the removal this requirement for PBR since the ceding company would pick up any refunds for negative experience in the cash flow projections. Under "favorable" scenarios, no reimbursement develops. Under "unfavorable" scenarios, the PBR would pick up the reimbursements to the reinsurer in the reinsurance cash flows -- the ceding company would end up not getting full credit for the reinsurance.

The open issue is whether the PBR can pick up all elements impacting the negative experience. The concern is that the protection may not be in place (in unfavorable situations) when it is really needed. The assumptions used for PBR may not pick up losses. For example, if treaty losses only occur if mortality is higher than that assumed in the projection, PBR may not pick up the impact of the reimbursement requirement. An alternative is to provide guidance suggesting stochastic modeling of mortality and/or lapse assumptions when such reinsurance exists to better reflect the contingencies in the reserve calculation.

(4) The ceding insurer must, at specific points in time scheduled in the agreement, terminate or automatically recapture all or part of the reinsurance ceded;

Note: Please see item (2) above for a discussion of this item.

(5) The reinsurance agreement involves the possible payment by the ceding insurer to the reinsurer of amounts other than from income realized from the reinsured policies. For example, it is improper for a ceding company to pay reinsurance premiums, or other fees or charges to a reinsurer which are greater than the direct premiums collected by the ceding company;

This provision is not necessary under PBR. Under PBR, the actual terms of the reinsurance treaty will be built into the PBR models. If the ceding company has contracted to pay the reinsurer more than it will receive from policyholder income (either under the entire policy or under a component of the policy), the appropriate net reserve liability will automatically emerge. This is consistent with the treatment of renewal expenses in item (1) above.

Below are a few examples of treaty features that have been prohibited in the past under the requirements of this paragraph, which should now be permissible since they can be modeled:

1. **Explicit risk fees have been prohibited. Instead, treaties structured with risk fees have the fee deducted from experience refunds.**

2. Partial benefit reinsurance, such as reinsurance of the secondary guarantee on UL, has sometimes been denied reserve credit. The rationale has been that the portion of the policy premium attributable to the partial benefit cannot be determined.
3. A reinsurer's right to raise reinsurance premiums has been restricted.

Restrictions have also been placed on the reinsurer's right to participate in the declaration of non-guaranteed elements. Q&A's on this subject are in Appendix A-791 as follows. The treaty provisions discussed in these Questions include i) the potential right for a ceding company to consent by contract for a reinsurer to establish COI charges or credited interest rates to be declared by the company on reinsured policies; ii) the potential right of a reinsurer to change its price for mortality coverage (treaty COI charges); and iii) the potential right of a reinsurer to settle up coinsurance of UL as though the ceding company had declared interest in accordance with a plan, even if the ceding company did not.

Q – Should a reinsurer have a unilateral right to establish underlying cost of insurance rates or credited interest rates for policies which are wholly or partially reinsured?

A – No, only the ceding company has the right to set the cost of insurance rates charged policyholders and to set the rates of interest credited to them. However, a representation (but not a warranty) that the ceding company shall vary nonguaranteed elements reinsured in a manner consistent with the ceding company's documented procedures, in effect at the time the agreement was entered into, does not violate the accounting requirements.

Q – May a reinsurance contract allow the reinsurer to change the cost of insurance that the ceding company must pay under the treaty?

A – So long as the aggregate amounts payable by the ceding company in any settlement period do not exceed the income of the reinsured policies during that period, the treaty's structure would not be in violation of paragraph 2. e. There is not compliance if any changes could cause payments made by the ceding company to exceed income from the reinsured business, unless the change is necessary to conform to the documented procedures represented to the reinsurer at the time the treaty was entered into and as long as the ceding company has the ability to change the insurance rates it charges policyholders by at least as much as was included in the original representation.

Q – If a reinsured policy allows the ceding company to guarantee rates of interest to be credited to the policyholder which are greater than those guaranteed by the policy, may a reinsurance contract allow the reinsurer to limit its participation in such credited rate as long as it at least provides for the amount based on the rate guaranteed in the contract?

A – So long as the aggregate amounts payable by the ceding company in any settlement period do not exceed the income of the reinsured policies during that period, the treaty's structure would not be in violation of paragraph 2. e. There is not compliance if any changes could cause payments made by the ceding company to exceed income from the reinsured business, unless the limited participation reflects a change in declared interest rates which is necessary to conform to the documented procedures represented to the reinsurer at the time the treaty was entered into and as long as the ceding company has the ability to change the declared interest rates to be credited to policyholders by at least as much as was included in the original representation.

The restrictions implied in the second and third answers are not necessary under PBR. Cash flow models can accommodate potential price change options, and the “knowledgeable counterparty” language further supports the assumptions for reinsurance options.

Although the restriction in the first question and answer can be accommodated by PBR, granting a contractual right to a Reinsurer to dictate underlying NGEs is probably a public policy issue. Is it important to place regulatory restrictions so that company Boards act responsibly and in a non-discriminatory way, or should this be a

matter for contractual negotiation? Are there any other regulatory provisions that impact a company's right to grant such a contractual delegation of rights? In absence of a public policy need to retain this restriction, the requirement could be eliminated, and any rights granted to the reinsurer could be included in PBR models, with due regard for the "knowledgeable counterparty" guidance. This would require consideration of reinsurer action, reaction of ceding company, and reaction of policyholders when setting assumptions.

(6) The treaty does not transfer all of the significant risk inherent in the business being reinsured. The following table identifies for a representative sampling of products or type of business, the risks which are considered to be significant. For products not specifically included, the risks determined to be significant shall be consistent with this table.

This provision is not necessary under PBR. PBR models will include reinsurance cash flows defined in the agreement, and, any risks that aren't transferred will not reduce the ceding company's reserve. The PBR model will measure appropriately the impact on reserve credits under reinsurance agreements that do not transfer specific risks (or only transfer a single risk) and those that contain limits or caps, but additional modeling guidance is needed:

- A particular risk element may become more (or less) significant when it is separated from other elements of the policy via reinsurance. An example might be reinsurance that splits the GMDB risk from a base UL policy. This consideration might alter what constitutes a prudent margin.
- The investment related risks—credit quality, reinvestment, and disintermediation—are a focus of PBR, via explicit modeling requirements and stochastic modeling of reinvestment and investment related cash flows. Therefore, the value of the reinsurance arrangement as it is affected by these investment risks is well captured, regardless of whether an investment risk element is retained by the ceding company, or transferred in whole or in part. However, any business which is excluded from stochastic modeling may be of concern.
- Current PBR exposures do not currently require risks related to morbidity, mortality and lapse to be modeled stochastically. The actuary must make a judgment as to whether the particular features of any reinsurance arrangement are sufficiently well modeled. PBR should include guidance to require stochastic modeling of these risks in certain situations. Reinsurance arrangements involving tail risk or caps and floors affecting cash flows due to mortality, morbidity and lapse are of greatest concern. Justification of the margin in such situations is essential, and secondary analyses of the range of results should be required in some instances.

Risk categories:

- i. Morbidity
- ii. Mortality
- iii. Lapse

This is the risk that a policy will voluntarily terminate prior to the recoupment of a statutory surplus strain experienced at issue of the policy.

- iv. Credit Quality

This is the risk that invested assets supporting the reinsured business will decrease in value. The main hazards are that assets will default or that there will be a decrease in earning power. It excludes market value declines due to changes in interest rate.

- v. Reinvestment

This is the risk that interest rates will fall and funds reinvested (coupon payments or monies received upon asset maturity or call) will therefore earn less than expected. If asset durations are less than liability durations, the mismatch will increase.

- vi. Disintermediation

This is the risk that interest rates rise and policy loans and surrenders increase or maturing contracts do not renew at anticipated rates of renewal. If asset durations are greater than the liability durations, the mismatch will increase. Policyholders will move their funds into new products offering higher rates. The company may have to sell assets at a loss to provide for these withdrawals.

+ - Significant 0 – Insignificant

RISK CATEGORY	RISK CATEGORY					
	i.	ii.	iii.	iv.	v.	vi.
Health Insurance – other than LTC/LTD*	+	0	+	0	0	0
Health Insurance – LTC/LTD*	+	0	+	+	+	0
Immediate Annuities	0	+	0	+	+	0
Single Premium Deferred Annuities	0	0	+	+	+	+
Flexible Premium Deferred Annuities	0	0	+	+	+	+
Guaranteed Interest Contracts	0	0	0	+	+	+
Other Annuity Deposit Business	0	0	+	+	+	+
Single Premium Whole Life	0	+	+	+	+	+
Traditional Non-Par Permanent	0	+	+	+	+	+
Traditional Non-Par Term	0	+	+	0	0	0
Traditional Par Permanent	0	+	+	+	+	+
Traditional Par Term	0	+	+	0	0	0
Adjustable Premium Permanent	0	+	+	+	+	+
Indeterminate Premium Permanent	0	+	+	+	+	+
Universal Life Flexible Premium	0	+	+	+	+	+
Universal Life Fixed Premium	0	+	+	+	+	+
Universal Life Fixed Premium - (dump-in premiums allowed)	0	+	+	+	+	+

*LTC = Long Term Care Insurance
LTD = Long Term Disability Insurance

(7) (a) The credit quality, reinvestment, or disintermediation risk is significant for the business reinsured and the ceding company does not (other than for the classes of business excepted in paragraph (7)(b) either transfer the underlying assets to the reinsurer or legally segregate such assets in a trust or escrow account or otherwise establish a satisfactory mechanism which legally segregates, by contract or contract provision, the underlying assets.

This requirement is not needed under PBR. The language in this section presupposes that, for funds withheld agreements, the funds withheld interest credited to the reinsurer must be based on an actual portfolio of assets. As discussed in (6) above, the requirement for investment risk transfer in all cases should be changed under PBR, since cash flow models can accommodate any strategy or formula for crediting interest to the reinsurer. The reserve calculation will incorporate any mismatches in portfolio. The two parties to a reinsurance agreement can still negotiate the segregation of assets if desired.

The concern is what would happen if the interest calculation/investment strategy is not well-defined. This could result in the two parties treating the same calculation very differently. We may need to provide guidance on how the two parties coordinate this in the modeling when it is not well-defined.

(b) Notwithstanding the requirements of paragraph g. i., the assets supporting the reserves for the following classes of business and any classes of business which do not have a significant credit quality, reinvestment or disintermediation risk may be held by the ceding company without segregation of such assets:

- o Health Insurance - LTC/LTD
- o Traditional Non-Par Permanent
- o Traditional Par Permanent
- o Adjustable Premium Permanent

- Indeterminate Premium Permanent
- Universal Life Fixed Premium
(no dump-in premiums allowed)

The associated formula for determining the reserve interest rate adjustment must use a formula which reflects the ceding company's investment earnings and incorporates all realized and unrealized gains and losses reflected in the statutory statement. The following is an acceptable formula:

$$\text{Rate} = \frac{2(I + CG)}{X + Y - I - CG}$$

Where:

- I is the net investment income
- CG is capital gains less capital losses
- X is the current year cash and invested assets plus investment income due and accrued less borrowed money
- Y is the same as X but for the prior year

Specifying a particular interest-rate formula is no longer necessary under PBR, since both the Stochastic Reserve and the Deterministic/Standard Scenario Reserve models could adequately pick up the features of whatever interest-rate formula is used in the treaty.

(8) Settlements are made less frequently than quarterly or payments due from the reinsurer are not made in cash within ninety (90) days of the settlement date.

1. Frequency of settlements

A requirement for the frequency of settlements may need to be retained, although it could be less frequent than quarterly. This regulation required quarterly settlements due to liquidity issues. A ceding insurer may not have the cash to pay claims for an extended period of time while it is waiting to receive reimbursements from the treaty. This may be a public policy issue, even though longer timing could be modeled and accounted for in PBR.

2. The timing of cash payments to settle amounts due

The requirements that amounts due be settled within ninety days may not be needed since PBR cash flow models will pick up any defined period for settlement. However, there may be a public policy reason to retain this provision under PBR.

The Life Reinsurance Work Group recommends adding a requirement for liquidity risk margins in PBR cash flow models for cash flows arising from infrequent reinsurance settlements.

(9) The ceding insurer is required to make representations or warranties not reasonably related to the business being reinsured.

PBR has no impact. This requirement should be addressed by PBR, since it is important to make sure that a reinsurer can't easily void a reinsurance contract because of the breach of a totally unnecessary representation or warranty.

For representations or warranties of this type that cannot be easily modeled, The Reinsurance Work Group recommends adding a requirement to PBR that cash flow models assume a breach occurs immediately, or does not occur, whichever results in the greatest net liability.

(10) The ceding insurer is required to make representations or warranties about future performance of the business being reinsured.

PBR has no impact. This requirement should be addressed by PBR.

For representations or warranties of this type that cannot be easily modeled, The Life Reinsurance Work Group recommends adding a requirement to PBR that cash flow models assume a breach occurs immediately, or does not occur, whichever results in the greatest net liability. This should probably be clarified that a representation or warranty about how the business is to be managed (i.e., in accordance with guidelines & practices communicated to the reinsurer) is not a violation.

(11) The reinsurance agreement is entered into for the principal purpose of producing significant surplus aid for the ceding insurer, typically on a temporary basis, while not transferring all of the significant risks inherent in the business reinsured and, in substance or effect, the expected potential liability to the ceding insurer remains basically unchanged.

PBR would take this into account. If a liability is truly unchanged, then PBR would end up providing the ceding company with no reserve reduction. Therefore, this requirement is not necessary under PBR.

B. Notwithstanding Subsection A, an insurer subject to this regulation may, with the prior approval of the commissioner, take such reserve credit or establish such asset as the commissioner may deem consistent with the Insurance Law, Rules or Regulations, including actuarial interpretations or standards adopted by the Department.

This provision is no longer needed unless a significant number of rules are retained.

C. (1) Agreements entered into after the effective date of this regulation which involve the reinsurance of business issued prior to the effective date of the agreements, along with any subsequent amendments thereto, shall be filed by the ceding company with the commissioner within thirty (30) days from its date of execution. Each filing shall include data detailing the financial impact of the transaction. The ceding insurer's actuary who signs the financial statement actuarial opinion with respect to valuation of reserves shall consider this regulation and any applicable actuarial standards of practice when determining the proper credit in financial statements filed with this department. The actuary should maintain adequate documentation and be prepared upon request to describe the actuarial work performed for inclusion in the financial statements and to demonstrate that such work conforms to this regulation.

The filing requirement was originally included to allow regulators a chance to see how the newly devised risk transfer requirements would be followed, at least for material agreements. Under PBR, review of cash flow models (which include reinsurance) is built into the process. Therefore, this requirement could be eliminated. Perhaps reinsurance agreements with material impact on PBR cash flows should have some additional or highlighted regulatory review during the course of auditing the PBR cash flow models.

The requirements imposed on the actuary to follow regulation and standards of practice, and to maintain adequate documentation already exist elsewhere, and will only be strengthened under PBR, so this requirement is no longer necessary here.

(2) Any increase in surplus net of federal income tax resulting from reinsurance arrangements described in Subsection C(1) shall be identified separately on the insurer's statutory financial statement as a surplus item (aggregate write-ins for gains and losses in surplus in the Capital and Surplus Account, page 4 of the Annual Statement) and recognition of the surplus increase as income shall be reflected on a net of tax basis in the "Reinsurance ceded" line, page 4 of the Annual Statement as earnings emerge from the business reinsured.

This requirement was adopted so that reinsurance of inforce business could not create a big increase in distributable earnings, giving rise to an automatic right under statute to make a dividend to owners, without prior regulatory review. It could be argued that this is no longer necessary because of the adoption of RBC requirements and Asset Adequacy Testing after the time this requirement was put in place. After PBR, tests of total asset sufficiency will be even more robust, further diminishing the need for this encumbrance of surplus.

{For example, on the last day of calendar year N, company XYZ pays a \$20 million initial commission and expense allowance to company ABC for reinsuring an existing block of business. Assuming a 34% tax rate, the net increase in surplus at inception is \$13.2 million (\$20 million - \$6.8 million) which is reported on the "Aggregate write-ins for gains and

losses in surplus" line in the Capital and Surplus account. \$6.8 million (34% of \$20 million) is reported as income on the "Commissions and expense allowances on reinsurance ceded" line of the Summary of Operations.

At the end of year N+1 the business has earned \$4 million. ABC has paid \$.5 million in profit and risk charges in arrears for the year and has received a \$1 million experience refund. Company ABC's annual statement would report \$1.65 million (66% of (\$4 million - \$1 million - \$.5 million) up to a maximum of \$13.2 million) on the "Commissions and expense allowance on reinsurance ceded" line of the Summary of Operations, and -\$1.65 million on the "Aggregate write-ins for gains and losses in surplus" line of the Capital and Surplus account. The experience refund would be reported separately as a miscellaneous income item in the Summary of Operations.}

Section 5. Written Agreements

A. No reinsurance agreement or amendment to any agreement may be used to reduce any liability or to establish any asset in any financial statement, unless the agreement, amendment or a binding letter of intent has been duly executed by both parties no later than the "as of date" of the financial statement.

PBR has no impact. This requirement should be addressed by PBR.

B. In the case of a letter of intent, a reinsurance agreement or an amendment to a reinsurance agreement must be executed within a reasonable period of time, not exceeding ninety (90) days from the execution date of the letter of intent, in order for credit to be granted for the reinsurance ceded.

PBR has no impact. This requirement should be addressed by PBR.

This should probably be clarified to read "...not exceeding ninety (90) days from the execution date of the letter of intent, or the agreement or amendment will not be considered in force until such time as it is executed."

C. The reinsurance agreement shall contain provisions which provide that:

(1) The agreement shall constitute the entire agreement between the parties with respect to the business being reinsured thereunder and that there are no understandings between the parties other than as expressed in the agreement; and

PBR has no impact. This requirement should be addressed by PBR. The Life Reinsurance Work Group recommends adding a requirement to PBR that on treaties without an entire agreement clause, cash flow models include cash flows representing the company's obligations under the agreement but not the obligations of the other party.

This should probably be clarified to read "understandings with respect to the business being reinsured thereunder".

(2) Any change or modification to the agreement shall be null and void unless made by amendment to the agreement and signed by both parties.

PBR has no impact. This requirement should be addressed by PBR. The Life Reinsurance Work Group recommends adding a requirement to PBR that on treaties without this amendments clause, cash flow models include cash flows representing the company's obligations under the agreement but not the obligations of the other party.