

Drafting Note (to Section 8): It is the belief of the task force that this section is properly a part of a general model regulation for credit insurance. However, it should be noted that in some states, there may be separate procedural provisions for regulations issued under the credit insurance law and under the appropriate consumer or the unfair trade practices acts. When they are separate, proper notice and hearing for this model regulation must be given under both procedures, though probably through a single instrument.

*NCLC COMMENT 1: This amendment avoids any confusion in the reference to Unfair Trade Practices Act permitting insertion by the commissioner of the title appropriate to the state. There are numerous state consumer protection laws including three relevant uniform laws: the Unfair Trade Practices and Consumer Protection Law, the Uniform Deceptive Trade Practices Act and the Uniform Consumer Sales Practices Act. These laws may go under a wide variety of names from state to state.*

*NCLC COMMENT 2: This amendment also includes within the list of prohibited transactions the financing of premiums (other than those providing coverage before the first payment due date) by including the premiums in the amount financed. This practice is particularly burdensome to debtors, especially in long-term transactions, and is explicitly provided against in the model act and model regulation as amended.*

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## LIFE INSURANCE (C3) SUBCOMMITTEE

### Reference:

1976 Proc. I p. 520  
1976 Proc. II p. 541

Hon. Maximilian Wallach, Chairman -- Dist. of Columbia  
Hon. Dick L. Rottman, Vice-Chairman -- Nevada

### AGENDA

1. Report of the Technical Task Force on Standard Nonforfeiture and Reserve Valuation Laws.
2. Report of the Life Insurance Cost Comparison Task Force on study of life insurance dividend practices.
3. Report of the Life Insurance Policy Lapsation Task Force.
4. Report of Agents' Compensation Task Force.
5. Report of Investment Annuity Contracts Task Force.
6. Report of the Replacement Regulation Task Force.
7. Any other matters brought before the Subcommittee.

The Life Insurance (C3) Subcommittee convened at 1:00 p.m. in the Regency B Room of the Hyatt Regency Hotel, Phoenix, Arizona, on Wednesday, December 8, 1976. A quorum was present.

John Montgomery, Chairman of the Technical Task Force on Standard Nonforfeiture and Reserve Valuation Laws, gave the report for this group consisting of three separate proposals: (1) The Standard Individual Deferred Annuity Nonforfeiture Law; (2) revisions to the Standard Valuation and Nonforfeiture Laws; (3) revision of the Standard Valuation Law with respect to annuities and pure endowments purchased prior to the operative date of 1972 NAIC amendments to the Standard Valuation Law under group annuity and pure endowment contracts.

Recommendation (1) was received in open session. In executive session recommendation (1) was adopted with an amendment to delete the 1990 limitation that was included in the original proposal. Recommendation (2) was received in open session and adopted in executive session. Recommendation (3) concerning pure endowments purchased prior to the 1972 amendments to this law was discussed thoroughly during open session. Chairman Montgomery reported that recommendation (3), previously withdrawn by a letter, was now rewritten and was resubmitted for the consideration of the group. Recommendation (3) was received in open session and was adopted in executive session with the recommendation that the task force together with the industry advisory committee submit guidelines for implementation of the recommendation. The report of the Technical Task Force on Standard Nonforfeiture and Reserve Valuation Laws as amended is attached to this report.

*Editor's Note: While the Executive Committee reversed the (C3) Subcommittee and merely received the three recommendations, the NAIC in Plenary Session voted to adopt the first and second recommendations as amended by (C3). The third recommendation concerning the release of reserves remains merely received per Executive Committee action and was not adopted by the NAIC. See p. 20, 22, 23.*

Bill Homan of the Iowa Department gave the report of the Life Insurance Cost Comparison Task Force. The report was received in open session and adopted in executive session (attached).

Director E. Benjamin Nelson of the Nebraska Department gave the report of the Life Insurance Replacement Regulation Task Force. The report was received in open session and adopted in executive session (attached).

The report of the task force on Life Insurance Policy Lapsation was given by Bill Homan of the Iowa Department. The report was received in open session and adopted in executive session (attached).

An oral report of the Agents' Compensation Task Force was given by Ramon Estefania, actuary for the South Carolina Department. He reported that the task force is working with LIMRA in making a study on agents' compensation, and a full report will be available to the NAIC at the June 1977 meeting.

A progress report of the Investment Annuity Contracts Task Force was given by Commissioner Richard Barnes, Colorado Department. This task force was appointed at the June 1976 meeting. An industry advisory committee has been appointed and a commissioner's drafting task force is to be appointed. The advisory committee will report on March 1, 1977, recommending the scope and nature of the regulation of the investment annuity business. The drafting task force will consider promulgation of a model regulation. Commissioner Barnes made reference to a recent meeting held by the Internal Revenue Service for the purpose of reconsidering its original position with respect to tax deferral for individual annuitants.

Mr. William R. Burns, actuary for the North Dakota Insurance Department, suggested that the NAIC consider changing its adopted cost comparison method from the interest adjusted method to the company retention method. Mr. Burns recommended that consideration be

given to the Canadian Institute of Actuaries' second report of the Committee on Cost Comparison of Individual Life Insurance Policies dated November 1976 recommending the company retention method. Mr. Burns also referred to a special committee appointed by the Society of Actuaries which analyzed the various possible methods of cost comparison. Although that committee did not recommend a specific cost comparison method, Mr. Burns felt that the company retention method passed the various screening tests of that committee to a far more satisfactory extent than did the interest adjusted method.

There being no further business to come before the meeting, the subcommittee adjourned at 2:45 p.m.

Hon. Maximilian Wallach, Chairman, Dist. of Columbia; Hon. Dick L. Rottman, Vice-Chairman, Nevada; Hon. William H.L. Woodyard III, Arkansas; Hon. J. Richard Barnes, Colorado; Hon. Herbert W. Anderson, Iowa; Hon. Sherman A. Bernard, Louisiana; Hon. George Dale, Mississippi; Hon. Henry W. Edmiston, Missouri; Hon. James J. Sheeran, New Jersey; Hon. Peter F. Mullaney, Rhode Island; Hon. Harold R. Wilde Jr., Wisconsin.

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(C) Committee Technical Task Force to Review  
Valuation and Nonforfeiture Value Regulation

LIFE INSURANCE

December 1976

(SPECIAL REPORT)  
(November 4, 1976)

*[Editor's Note: The December 1976 report of the task force concerns only its proceedings since the June 1976 meeting of the NAIC which do NOT require action by the NAIC at the December 1976 meeting in Phoenix. Recommendations requiring a decision by the NAIC were sent to members of the Life Insurance (C3) Subcommittee in a "Special Report" dated November 4, 1976. (That Special Report was modified by a subsequent mailing on November 9, 1976 withdrawing recommendation (3) temporarily.) For the convenience of the reader, that Special Report, which includes recommendations adopted by the NAIC, immediately follows. December material which is for later action will appear after the Special Report.]*

To: All Members of the NAIC

From: John O. Montgomery, Chairman  
Valuation and Nonforfeiture Value Regulation Technical Task Force  
California Insurance Department

Re: Standard Valuation and Nonforfeiture Law - 1976 Revisions

Date: November 4, 1976

The revisions proposed for adoption by the National Association of Insurance Commissioners at its December 1976 meeting are the most comprehensive in forty years. For this reason a Special Report by the NAIC Technical Task Force, which includes drafts of the proposed model legislation, is being sent to all commissioners. Members of the (C3) Life Subcommittee and its parent committees will also receive in about ten days some further explanatory material. Because of the bulk of this additional material it will be sent to other persons only upon request.

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Valuation and Nonforfeiture Value Regulation  
(C3) Technical Task Force

SPECIAL REPORT

Report Concerning the Proposed Standard Individual Deferred  
Annuity Nonforfeiture Law and Revisions of the Present  
Standard Valuation and Standard Nonforfeiture Laws

November 4, 1976

This special report contains three recommendations which the Valuation and Nonforfeiture Value Regulation Technical Task Force urges the NAIC (C3) Life Subcommittee to adopt at its meeting in December 1976. An additional report to be filed by the task force in December will contain both exposure drafts of proposals intended for consideration at future meetings and also minutes of meetings of the task force that have been held since the June 1976 NAIC meeting.

The three proposals recommended by the task force for adoption are:

1. The Standard Individual Deferred Annuity Nonforfeiture Law

- a. There is at present no standard law defining nonforfeiture values for individual deferred annuities. This Act will fill that gap.
- b. A draft of the law is given in Attachment A-1, and a detailed explanation of the need for such legislation and what the proposed law is expected to accomplish is given in Attachment B.

(NOTE: In those states which do not now have a nonforfeiture law for individual deferred annuities, it may be necessary to amend Section 5 of the NAIC Model Variable Contract Law so that provisions of the Standard Nonforfeiture Law for Individual Deferred Annuities are made inapplicable to variable annuities. See 1970 NAIC Proceedings 370.)

2. Revisions to the Standard Valuation and Nonforfeiture Laws

- a. A draft of the revised Standard Valuation Law is given in Attachment A-2 and the revised Standard Nonforfeiture Law in Attachment A3.

These revisions:

- (1) Specify the maximum interest assumptions for policy and contract reserve calculations for policies and contracts purchased after the effective date of the proposed amendment:
  - (a) For group annuities and single premium individual immediate annuities purchased:
    - (i) Prior to January 1, 1990 -- 7½% (6% present law).
    - (ii) On or after January 1, 1990 -- 6%.
  - (b) For single premium life insurance and single premium individual deferred annuity contracts -- 5½% (4% present law).
  - (c) For all other life insurance policies and all other individual deferred annuity contracts -- 4½% (4% present law)†
- (2) Specify maximum interest assumptions for life insurance policy nonforfeiture value calculations:
  - (a) For single premium policies -- 6½% (4% present law).
  - (b) For all other life insurance policies -- 5½% (4% present law).
- (3) Define the Commissioners Annuity Reserve Valuation Method.

- (4) Provide a modification of the Commissioners Reserve Valuation Method for life insurance policies to account directly in the reserve for a gross premium payable in any policy year which is less than the valuation net annual premium for that policy year calculated according to the minimum reserve standards of mortality and interest rate and according to the valuation method actually used by the insurer in computing reserves. This change would end the current practice of unduly penalizing, through the operation of the current deficiency reserve statute, those insurers who value on a basis more conservative than the minimum required by the law. No credit is given in the proposed method for excesses in any policy year of the gross premium over the valuation net premium.
  - (5) Revise the age setback for female lives in the standard nonforfeiture law from three to six years in anticipation of the development of a new standard of mortality providing separate tables by sex.
- b. These revisions are needed:
- (1) To make it possible for insurers to lower the cost to policyholders of life insurance and annuities by reducing the too conservative reserve and nonforfeiture requirements contained in the current law; this would be done by raising interest rates in the Standard Valuation and Nonforfeiture Laws to levels that are closer to current earnings and those anticipated during the foreseeable future (See Attachment C for further details).
  - (2) To provide a basis by which the private sector can compete effectively with the federal government in insuring terminated pension plans (See Attachment C for further details).
  - (3) To remove the linkage between the Standard Valuation Law and the Standard Nonforfeiture Law so that it will be possible, if needed in the future, to strengthen reserves to a more conservative basis without requiring a corresponding adjustment in nonforfeiture values (See Attachment D for further details).
  - (4) To set forth a method of computing reserves for some types of individual deferred annuity contracts for which the commissioners' reserve method in the current law does not produce reasonable results (See Attachment E for details); and
  - (5) To permit insurers if they chose to do so to value liabilities on a more conservative basis than the proposed minimum without subjecting them to the penalties imposed by the current law if any gross premiums are less than valuation net premiums (See Attachment F for details).

3. Revision of the Standard Valuation Law With Respect to Annuities and Pure Endowments Purchased Prior to the Operative Date of the 1972 NAIC Amendments to the Standard Valuation Law Under Group Annuity and Pure Endowment Contracts

- a. A draft of this revision is given in Attachment A-4. The revision would increase the maximum valuation interest rate for such benefits from 3½% to 5% and would permit a significant release of reserve to surplus for some group pension insurers.
- b. This revision, by reducing surplus strain, would permit private insurance companies to compete more effectively with the federal government in insuring terminated pension plans (See Attachment C for further details).

Attachments to this report are:

- A. Drafts of Proposed Standard Laws.
  1. Standard Individual Deferred Annuity Nonforfeiture Law.
  2. Standard Valuation Law as Revised.
  3. Standard Nonforfeiture Law for Life Insurance as Revised.
  4. Standard Valuation Law as Revised for Annuities and Pure Endowments Purchased Prior to the Effective Date of the 1972 NAIC Amendments to the Standard Valuation Law Under Group Annuity and Pure Endowment Contracts.

- B. An Explanation of the Standard Nonforfeiture Law for Individual Deferred Annuities.
- C. An Explanation of the Need to Increase Maximum Interest Rate Assumptions in the Standard Valuation and Nonforfeiture Laws.
- D. Linkage of Nonforfeiture Values With Valuation Reserves. (Special Report by the Society of Actuaries Nonforfeiture Committee).
- E. An Explanation of the Commissioners' Reserve Method for Individual Deferred Annuities.
- F. An Explanation of the Revision of the Premium Deficiency Reserve Section of the Standard Valuation Law.

John O. Montgomery, Chairman, California; W. Keith Sloan, Arkansas; James R. Montgomery III, District of Columbia; Erma Edwards, Nevada; William A. White, New Jersey; Thomas C. Kelly, New York; William R. Burns, North Dakota; J. Ramon Estefania, South Carolina; Ted Becker, Texas; Lamar Walker, Utah; Bradford S. Gile, Wisconsin.

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SPECIAL ATTACHMENT ONE

From: John O. Montgomery, Chairman  
NAIC (C) Committee Technical Task Force on Valuation and Nonforfeiture Value Regulation

Date: November 9, 1976

Re: Standard Valuation Law -- 1976 Revisions  
Withdrawal of Recommendation 3 -- Change in Interest Rate for Previous Issues of Group Annuity and Pure Endowment Contracts

The Technical Task Force on Valuation and Nonforfeiture Value Regulation, upon consideration of Mr. Estefania's letter of November 1, 1976, a copy of which is attached, has decided to withdraw the third recommendation presented in the Special Report sent you November 4, 1976. The third recommendation concerned revision of the Standard Valuation Law with respect to annuities and pure endowments purchased prior to the operative date of the 1972 NAIC Amendments to the Standard Valuation Law under group annuity and pure endowment contracts and would increase the maximum valuation interest rate for such benefits from 3½% to 5%. The potential magnitude of the surplus released is such that further consideration by the task force must be given as to the sources and disposition of such surplus released.

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SPECIAL ATTACHMENT TWO

To: John O. Montgomery, Chairman  
Technical (C) Task Force  
California Insurance Department

From: J. Ramon Estefania, Chief Actuary  
State of South Carolina  
Department of Insurance

Date: November 1, 1976

Re: Paragraph 3 of the Report to NAIC (C3) From the Technical Task Force -- Change in Interest Rate for Previous Issues of Group Annuities and Endowment Contracts

In discussing my letter of October 22 regarding retroactive application of interest rates and the release of reserves, we agreed that an investigation of the amount which will be released into surplus should be made so that the commissioners will be aware of the implications of such a proposal.

I have made a study of the reserves held on Group Annuities by the first twenty largest (by assets) insurance companies, of these, 13 had substantial amounts. I added Southwestern Life with over \$73 million, a very modest amount, because their representative was in our meeting. The amounts by company are:

Reserves Held on Group Annuities  
As Shown in the 1975 Statement

<u>Company</u>	<u>Reserve</u>
Aetna Life Insurance Company	\$ 3,786,220,018
Connecticut General Life Insurance Company	2,311,705,925
Equitable Life Assurance Society	6,985,965,941
John Hancock Mutual Insurance Company	3,771,516,352
Lincoln National Life Insurance Company	78,147,207
Massachusetts Mutual Life Insurance Company	312,661,683
Metropolitan Life Insurance Company	6,689,258,853
Mutual Life Insurance Company of New York	581,333,149
New York Life Insurance Company	1,052,136,201
Occidental Life Insurance Company of California	398,080,444
Penn Mutual Life Insurance Company	122,359,241
Prudential Insurance Company of America	6,799,965,780
State Mutual Life Assurance Company of America	142,401,751
Southwestern Life Insurance Company	<u>73,623,173</u>
Total	<u>\$33,105,375,718</u>

The total reserves for these 14 companies is over \$33,105 millions. How many of these thousands of millions will be suddenly released and transferred to surplus?

It is difficult to say how much relief it will represent, but if I remember well, during our last meeting in St. Paul, Mr. Carl R. Alman from Equitable Life mentioned that for them, it will be about \$200 millions. Applying the same proportion to the total for the companies here included, it will mean that \$947,75 millions will be released. This could well be a conservative estimate. Since there are many reserves held at 2¼, 2½ and 3%, the actual figure could be even much higher, even several times this amount. Also we have to take into consideration that this total corresponded to a sample of twenty companies selected as explained above and, therefore, is only a portion of the total reserves held by the industry.

An amount in the thousands of millions as released immediately into surplus should be perhaps the object of more reflection on the part of the NAIC, especially when the amount released could be higher than all the capital invested in insurance companies now operating. If the release has a purpose that is to transfer the redundancy of reserves in this line into the more demanding reserves for terminating pension plans, then, the purpose should be avoiding the passage of the released amount through surplus with all its implications.

In essence, in my judgment, we need to know a lot more about this idea, its purpose and the method to achieve it before recommending its adoption.

ATTACHMENT A-1 -- (As Adopted)

Proposed NAIC Standard Nonforfeiture Model Law for Individual Deferred Annuities

1. This Act shall be known as the Standard Nonforfeiture Law for Individual Deferred Annuities.

2. This Act shall not apply to any reinsurance, group annuity purchased under a retirement plan or plan of deferred compensation established or maintained by an employer (including a partnership or sole proprietorship) or by an employee organization, or by both, other than a plan providing individual retirement accounts or individual retirement annuities under Section 408 of the Internal Revenue Code, as now or hereafter amended, premium deposit fund, variable annuity, investment annuity, immediate annuity, any deferred annuity contract after annuity payments have commenced, or reversionary annuity, nor to any contract which shall be delivered outside this state through an agent or other representative of the company issuing the contract.
3. In the case of contracts issued on or after the operative date of this Act as defined in Section 12, no contract of annuity, except as stated in Section 2, shall be delivered or issued for delivery in this state unless it contains in substance the following provisions, or corresponding provisions which in the opinion of the commissioner are at least as favorable to the contractholder, upon cessation of payment of considerations under the contract.
  - (a) That upon cessation of payment of considerations under a contract, the company will grant a paid-up annuity benefit on a plan stipulated in the contract of such value as is specified in Sections 5, 6, 7, 8 and 10.
  - (b) If a contract provides for a lump sum settlement at maturity, or at any other time, that upon surrender of the contract at or prior to the commencement of any annuity payments, the company will pay in lieu of any paid-up annuity benefit a cash surrender benefit of such amount as is specified in Sections 5, 6, 8 and 10. The company shall reserve the right to defer the payment of such cash surrender benefit for a period of six (6) months after demand therefor with surrender of the contract.
  - (c) A statement of the mortality table, if any, and interest rates used in calculating any minimum paid-up annuity, cash surrender or death benefits that are guaranteed under the contract, together with sufficient information to determine the amounts of such benefits.
  - (d) A statement that any paid-up annuity, cash surrender or death benefits that may be available under the contract are not less than the minimum benefits required by any statute of the state in which the contract is delivered and an explanation of the manner in which such benefits are altered by the existence of any additional amounts credited by the company to the contract, any indebtedness to the company on the contract or any prior withdrawals from or partial surrenders of the contract.

Notwithstanding the requirements of this Section, any deferred annuity contract may provide that if no considerations have been received under a contract for a period of two (2) full years and the portion of the paid-up annuity benefit at maturity on the plan stipulated in the contract arising from considerations paid prior to such period would be less than twenty dollars (\$20.00) monthly, the company may at its option terminate such contract by payment in cash of the then present value of such portion of the paid-up annuity benefit, calculated on the basis of the mortality table, if any, and interest rate specified in the contract for determining the paid-up annuity benefit, and by such payment shall be relieved of any further obligation under such contract.
4. The minimum values as specified in Sections 5, 6, 7, 8 and 10 of any paid-up annuity, cash surrender or death benefits available under an annuity contract shall be based upon minimum nonforfeiture amounts as defined in this section.
  - (a) With respect to contracts providing for flexible considerations, the minimum nonforfeiture amount at any time at or prior to the commencement of any annuity payments shall be equal to an accumulation up to such time at a rate of interest of three percent (3%) per annum of percentages of the net considerations (as hereinafter defined) paid prior to such time, decreased by the sum of
    - (i) any prior withdrawals from or partial surrenders of the contract accumulated at a rate of interest of three percent (3%) per annum; and
    - (ii) the amount of any indebtedness to the company on the contract, including including interest due and accrued and increased by any existing additional amounts credited by the company to the contract.

The net considerations for a given contract year used to define the minimum nonforfeiture amount shall be an amount not less than zero and shall be equal to the corresponding gross considerations credited to the contract during that contract year less than an annual contract charge of thirty dollars (\$30.00) and less a collection charge of one dollar and twenty-five (\$1.25) per consideration credited to the contract during that contract year. The percentages of net considerations shall be sixty-five percent (65%) of the net consideration for the first contract year and eighty-seven and one-half percent (87½%) of the net considerations for the second and later contract years. Notwithstanding the provisions of the preceding sentence, the percentage shall be sixty-five percent (65%) of the portion of the total net consideration for any renewal contract year which exceeds by not more than two times the sum of those portions of the net considerations in all prior contract years for which the percentage was sixty-five percent (65%).

- (b) With respect to contracts providing for fixed scheduled considerations, minimum nonforfeiture amounts shall be calculated on the assumption that considerations are paid annually in advance and shall be defined as for contracts with flexible considerations which are paid annually with two exceptions:
    - (1) The portion of the net consideration for the first contract year to be accumulated shall be the sum of sixty-five percent (65%) of the net consideration for the first contract year plus twenty-two and one-half percent (22½%) of the excess of the net consideration for the first contract year over the lesser of the net considerations for the second and third contract years.
    - (2) The annual contract charge shall be the lesser of (i) thirty dollars (\$30.00) or (ii) ten percent (10%) of the gross annual considerations.
  - (c) With respect to contracts providing for a single consideration, minimum nonforfeiture amounts shall be defined as for contracts with flexible considerations except that the percentage of net consideration used to determine the minimum nonforfeiture amount shall be equal to ninety percent (90%) and the net consideration shall be the gross consideration less a contract charge of seventy-five dollars (\$75.00).
5. Any paid-up annuity benefit available under a contract shall be such that its present value on the date annuity payments are to commence is at least equal to the minimum nonforfeiture amount on that date. Such present value shall be computed using the mortality table, if any, and the interest rate specified in the contract for determining the minimum paid-up annuity benefits guaranteed in the contract.
  6. For contracts which provide cash surrender benefits, such cash surrender benefits available prior to maturity shall not be less than the present value as of the date of surrender of that portion of the maturity value of the paid-up annuity benefit which would be provided under the contract at maturity arising from considerations paid prior to the time of cash surrender reduced by the amount appropriate to reflect any prior withdrawals from or partial surrenders of the contract, such present value being calculated on the basis of an interest rate not more than one percent (1%) higher than the interest rate specified in the contract for accumulating the net considerations to determine such maturity value, decreased by the amount of any indebtedness to the company on the contract, including interest due and accrued, and increased by any existing additional amounts credited by the company to the contract. In no event shall any cash surrender benefit be less than the minimum nonforfeiture amount at that time. The death benefit under such contracts shall be at least equal to the cash surrender benefit.
  7. For contracts which do not provide cash surrender benefits, the present value of any paid-up annuity benefit available as a nonforfeiture option at any time prior to maturity shall not be less than the present value of that portion of the maturity value of the paid-up annuity benefit provided under the contract arising from considerations paid prior to the time the contract is surrendered in exchange for, or changed to, a deferred paid-up annuity, such present value being calculated for the period prior to the maturity date on the basis of the interest rate specified in the contract for accumulating the net considerations to determine such maturity value, and increased by any existing additional amounts credited by the company to the contract. For contracts which do not provide any death benefits prior to the commencement of any annuity payments, such present values shall be calculated on the basis of such interest rate and the mortality table specified in the contract for determining the maturity value of the paid-up annuity benefit. However, in no event shall the present value of a paid-up annuity benefit be less than the minimum nonforfeiture amount at that time.

8. For the purpose of determining the benefits calculated under Sections 6 and 7, in the case of annuity contracts under which an election may be made to have annuity payments commence at optional maturity dates, the maturity date shall be deemed to be the latest date for which election shall be permitted by the contract, but shall not be deemed to be later than the anniversary of the contract next following the annuitant's seventieth birthday or the tenth anniversary of the contract, whichever is later.
9. Any contract which does not provide cash surrender benefits or does not provide death benefits at least equal to the minimum nonforfeiture amount prior to the commencement of any annuity payments shall include a statement in a prominent place in the contract that such benefits are not provided.
10. Any paid-up annuity, cash surrender or death benefits available at any time, other than on the contract anniversary under any contract with fixed scheduled considerations, shall be calculated with allowance for the lapse of time and the payment of any scheduled considerations beyond the beginning of the contract year in which cessation of payment of considerations under the contract occurs.
11. For any contract which provides, within the same contract by rider or supplemental contract provision, both annuity benefits and life insurance benefits that are in excess of the greater of cash surrender benefits or a return of the gross considerations with interest, the minimum nonforfeiture benefits shall be equal to the sum of the minimum nonforfeiture benefits for the annuity portion and the minimum nonforfeiture benefits, if any, for the life insurance portion computed as if each portion were a separate contract. Notwithstanding the provisions of Sections 5, 6, 7, 8 and 10, additional benefits payable (a) in the event of total and permanent disability, (b) as reversionary annuity or deferred reversionary annuity benefits, or (c) as other policy benefits additional to life insurance, endowment and annuity benefits, and considerations for all such additional benefits, shall be disregarded in ascertaining the minimum nonforfeiture amounts, paid-up annuity, cash surrender and death benefits that may be required by this Section. The inclusion of such additional benefits shall not be required in any paid-up benefits, unless such additional benefits separately would require minimum nonforfeiture amounts, paid-up annuity, cash surrender and death benefits.
12. After the effective date of this Act, any company may file with the commissioner a written notice of its election to comply with the provisions of this Act after a specified date before the second anniversary of the effective date of this Act. After the filing of such notice, then upon such specified date, which shall be the operative date of this Section for such company, this Act shall become operative with respect to annuity contracts thereafter issued by such company. If a company makes no such election, the operative date of this Section for such company shall be the second anniversary of the effective date of this Act.

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ATTACHMENT A-2 -- (As Adopted)

Proposed Changes in the Standard Valuation Law  
 Additions are underlined, deletions are ~~ruled out~~

1. This Act shall be known as the Standard Valuation Law.
2. The commissioner shall annually value, or cause to be valued, the reserve liabilities (hereinafter called reserves) for all outstanding life insurance policies and annuity and pure endowment contracts of every life insurance company doing business in this state, and may certify the amount of such reserves, specifying the mortality table or tables, rate or rates of interest, and methods (net level premium method or other) used in the calculation of such reserves. In calculating such reserves, he may use group methods and approximate averages for fractions of a year or otherwise. In lieu of the valuation of the reserves herein required of any foreign or alien company, he may accept any valuation made, or caused to be made, by the insurance supervisory official of any state or other jurisdiction when such valuation complies with the minimum standard herein provided and if the official of such state or jurisdiction when such valuation complies with the minimum standard herein provided and if the official of such state or jurisdiction accepts as sufficient and valid for all legal purposes the certificate of valuation of the commissioner when such certificate states the valuation to have been made in a specified manner according to which the aggregate reserves would be at least as large as if they had been computed in the manner prescribed by the law of that state or jurisdiction.

3. Except as otherwise provided in Section three-a, the minimum standard for the valuation of all such policies and contracts issued prior to the effective date of this Act shall be that provided by the laws in effect immediately prior to such date. Except as otherwise provided in Section three-a, the minimum standard for the valuation of all such policies and contracts issued on or after the effective date of this Act shall be the Commissioners reserve valuation methods defined in Sections four, ~~four-a and seven~~, three and one-half percent (3½%) interest, or in the case of policies and contracts other than annuity and pure endowment contracts, issued on or after (insert effective date of 1972 NAIC Amendments to the Standard Valuation Law) ~~the effective date of this amendatory Act of 1977 and prior to January 1, 1986~~, four percent (4%) interest for such policies issued prior to the effective date of this amendatory Act of 1977, five and one-half percent (5½%) interest for single premium life insurance policies and four and one-half percent (4½%) interest for all other such policies issued on or after the effective date of this amendatory Act of 1977, and the following tables:
- (a) For all Ordinary policies of life insurance issued on the standard basis, excluding any disability and accidental death benefits in such policies, - the Commissioners 1941 Standard Ordinary Mortality Table for such policies issued prior to the operative date of Section five-a of the Standard Nonforfeiture Law as amended, and the Commissioners 1958 Standard Ordinary Mortality Table for such policies issued on or after such operative date, provided that for any category of such policies issued on female risks, all modified net premiums and present values referred to in this Act may be calculated according to an age not more than three six years younger than the actual age of the insured.
  - (b) For all Industrial life insurance policies issued on the standard basis, excluding any disability and accidental death benefits in such policies, - the 1941 Standard Industrial Mortality Table for such policies issued prior to the operative date of Section five-b of the Standard Nonforfeiture Law as amended, and the Commissioners 1961 Standard Industrial Mortality Table for such policies issued on or after such operative date.
  - (c) For Individual Annuity and Pure Endowment contracts, excluding any disability and accidental death benefits in such policies, - the 1937 Standard Annuity Mortality Table or, at the option of the company, the Annuity Mortality Table for 1949, Ultimate, or any modification of either of these tables approved by the commissioner.
  - (d) For Group Annuity and Pure Endowment contracts, excluding any disability and accidental death benefits in such policies, - the Group Annuity Mortality Table for 1951, any modification of such table approved by the commissioner, or, at the option of the company, of any of the tables or modifications of tables specified for Individual Annuity and Pure Endowment contracts.
  - (e) For Total and Permanent Disability Benefits in or supplementary to Ordinary policies or contracts - for policies or contracts issued on or after January 1, 1966, the tables of Period 2 disablement rates and the 1930 to 1950 termination rates of the 1952 Disability Study of the Society of Actuaries, with due regard to the type of benefit; for policies or contracts issued on or after January 1, 1961, and prior to January 1, 1966, either such tables or, at the option of the company, the Class (3) Disability Table (1926); and for policies issued prior to January 1, 1961, the Class (3) Disability Table (1926). Any such table shall, for active lives, be combined with a mortality table permitted for calculating the reserves for life insurance policies.
  - (f) For Accidental Death benefits in or supplementary to policies - for policies issued on or after January 1, 1966, the 1959 Accidental Death Benefits Table; for policies issued on or after January 1, 1961, and prior to January 1, 1966, either such table or, at the option of the company, the Inter-Company Double Indemnity Mortality Table; and for policies issued prior to January 1, 1961, the Inter-Company Double Indemnity Mortality Table. Either table shall be combined with a mortality table permitted for calculating the reserves for life insurance policies.
  - (g) For Group Life insurance, life insurance issued on the substandard basis and other special benefits - such tables as may be approved by the commissioner.
- 3-a. The minimum standard for the valuation of all individual annuity and pure endowment contracts issued on or after the operative date of this Section three-a, as defined herein, and for all annuities and pure endowments purchased on or after such operative date under group annuity and pure endowment contracts, shall be the Commissioners reserve valuation methods defined in Sections four and four-a and the following tables and interest rates:

- (a) For individual annuity and pure endowment contracts issued prior to the effective date of this amendatory act of 1977, January 1, 1986, excluding any disability and accidental death benefit in such contracts, -- the 1971 Individual Annuity Mortality Table, or any modification of this table approved by the Commissioner, and six percent (6%) interest for single premium immediate annuity contracts, and four percent (4%) interest for all other individual annuity and pure endowment contracts.
- (b) ~~For Individual and Pure Endowment contracts issued on or after January 1, 1986, excluding any disability and accidental death benefits in such contracts the 1971 Individual Annuity Mortality Table, or any modification of this table approved by the Commissioner, and three and one-half percent (3½%) interest. For individual single premium immediate annuity contracts issued on or after the effective date of this amendatory act of 1977, excluding any disability and accidental death benefits in such contracts, -- the 1971 Individual Annuity Mortality Table, or any modification of this table approved by the Commissioner, and seven and one-half (7½%) interest.~~
- (c) For individual annuity and pure endowment contracts issued on or after the effective date of this Amendatory Act of 1977, other than single premium immediate annuity contracts, excluding any disability and accidental death benefits in such contracts, -- the 1971 Individual Annuity Mortality Table, or any modification of this table approved by the Commissioner, and five and one-half percent (5½%) interest for single premium deferred annuity and pure endowment contracts and four and one-half percent (4½%) interest for all other such individual annuity and pure endowment contracts.
- ~~(d)~~ (d) For all annuities and pure endowments purchased prior to the effective date of this amendatory Act of 1977, January 1, 1986 under group annuity and pure endowment contracts, excluding any disability and accidental death benefits purchased under such contracts, -- the 1971 Group Annuity Mortality Table, or any modification of this table approved by the Commissioner and six percent (6%) interest.
- ~~(e)~~ (e) For all annuities and pure endowments purchased on or after the effective date of this amendatory act of 1977 under group annuity and pure endowment contracts, excluding any disability and accidental death benefits purchased under such contracts, -- the 1971 Group Annuity Mortality Table, or any modification of this table approved by the Commissioner, and seven and one-half percent (7½%) interest.

For all annuities and pure endowments purchased on or after January 1, 1990 1986 under group annuity and pure endowment contracts, excluding any disability and accidental death benefits purchased under such contracts, -- the 1971 Group Annuity Mortality Table, or any modification of this table approved by the Commissioner, and three six and one-half percent (3½%) (6%) interest.

After (insert effective date of 1972 NAIC Amendments to the Standard Valuation Law) ~~the effective date of this amendatory Act of 1977~~, any company may file with the Commissioner a written notice of its election to comply with the provisions of this section after a specified date before January 1, nineteen hundred and seventy-nine, which shall be the operative date of this section for such company, provided, a company may elect a different operative date for individual annuity and pure endowment contracts from that elected for group annuity and pure endowment contracts. If a company makes no such election, the operative date of this section for such company shall be January 1, nineteen hundred and seventy-nine.

4. Except as otherwise provided in Sections four-a and seven, reserves according to the commissioners reserve valuation method, for the life insurance and endowment benefits of policies providing for a uniform amount of insurance and requiring the payment of uniform premiums shall be the excess, if any, of the present value, at the date of valuation, of such future guaranteed benefits provided for by such policies, over the then present value of any future modified net premiums therefor. The modified net premiums for any such policy shall be such uniform percentage of the respective contract premiums for such benefits that the present value, at the date of issue of the policy, of all such modified net premiums shall be equal to the sum of the then present value of such benefits provided for by the policy and the excess of (a) over (b), as follows:
- (a) A net level annual premium equal to the present value, at the date of issue, of such benefits provided for after the first policy year, divided by the present value, at the date of issue, of an annuity of one per annum payable on the first and each subsequent anniversary of such policy on which a premium falls due; provided, however, that such net level annual premium shall not exceed the net level annual premium on the nineteen year premium whole life plan for insurance of the same amount at an age one year higher than the age at issue of such policy.

- (b) A net one year term premium for such benefits provided for in the first policy year.

Reserves according to the commissioners reserve valuation method for: (1) life insurance policies providing for a varying amount of insurance or requiring the payment of varying premiums; (2) group annuity and pure endowment contracts purchased under a retirement plan or plan of deferred compensation, established or maintained by an employer (including a partnership or sole proprietorship) or by an employee organization, or by both, other than a plan providing individual retirement accounts or individual retirement annuities under Section 408 of the Internal Revenue Code, as now or hereafter amended; (3) disability and accidental death benefits in all policies and contracts; and (4) all other benefits, except life insurance and endowment benefits in life insurance policies and benefits provided by all other annuity and pure endowment contracts shall be calculated by a method consistent with the principles of the preceding paragraph.

- 4-a. This section shall apply to all annuity and pure endowment contracts other than group annuity and pure endowment contracts purchased under a retirement plan or plan of deferred compensation, established or maintained by an employer (including a partnership or sole proprietorship) or by an employee organization, or by both, other than a plan providing individual retirement accounts or individual retirement annuities under Section 408 of the Internal Revenue Code, as now or hereafter amended.

Reserves according to the Commissioners annuity reserve method for benefits under annuity or pure endowment contracts, excluding any disability and accidental death benefits in such contracts, shall be the greatest of the respective excesses of the present values, at the date of valuation, of the future guaranteed benefits, including guaranteed nonforfeiture benefits, provided for by such contracts at the end of each respective contract year, over the present value, at the date of valuation, of any future valuation considerations derived from future gross considerations, required by the terms of such contract, that become payable prior to the end of such respective contract year. The future guaranteed benefits shall be determined by using the mortality table, if any, and the interest rate, or rates, specified in such contracts for determining guaranteed benefits. The valuation considerations are the portions of the respective gross considerations applied under the terms of such contracts to determine nonforfeiture values.

5. In no event shall a company's aggregate reserves for all life insurance policies, excluding disability and accidental death benefits, issued on or after the effective date of this Act, be less than the aggregate reserves calculated in accordance with the methods set forth in Sections four, four-a and seven and the mortality table or tables and rate or rates of interest used in calculating nonforfeiture benefits for such policies.
6. Reserves for all policies and contracts issued prior to the effective date of this Act may be calculated, at the option of the company, according to any standards which produce greater aggregate reserves for all such policies and contracts than the minimum reserves required by the laws in effect immediately prior to such date.

~~Reserves for any category of policies, contracts or benefits as established by the commissioner, issued on or after the effective date of this Act, may be calculated, at the option of the company, according to any standards which produce greater aggregate reserves for such category than those calculated according to the minimum standard herein provided, but the rate or rates of interest used for policies and contracts, other than annuity and pure endowment contracts, shall not be higher than the corresponding rate or rates of interest used in calculating any nonforfeiture benefits provided for therein. Provided, however, that reserves for participating life insurance policies issued on or after the effective date of this Act may, with the consent of the commissioner, be calculated according to a rate of interest lower than the rate of interest used in calculating the nonforfeiture benefits in such policies, with the further proviso that if such lower rate differs from the rate used in the calculation of the nonforfeiture benefits by more than 1/4%, the company issuing such policies shall file with the commissioner a plan providing for such equitable increases, if any, in the cash surrender values and nonforfeiture benefits in such policies as the commissioner shall approve.~~

Any such company which at any time shall have adopted any standard of valuation producing greater aggregate reserves than those calculated according to the minimum standard herein provided may, with the approval of the commissioner, adopt any lower standard of valuation, but not lower than the minimum herein provided.

7. ~~If in any contract year the gross premium charged by any life insurance company on any policy or contract is less than the valuation net premium for the policy or contract calculated according to the mortality table, rate of interest, and by the method used in calculating the reserve thereon but using the minimum valuation standards of mortality and rate of interest, there shall be maintained on such policy or contract a deficiency reserve in addition to all other reserves required by law. For each such policy or contract, the deficiency reserve shall be the present value, according to such standard of an annuity of the difference between such net premium and the premium charged for such policy or contract running for the remainder of the premium paying period; the minimum reserve required for such policy or contract is the greater of either the reserve calculated according to the mortality table, rate of interest, and method actually used for such policy or contract, or the reserve calculated by the method actually used for such policy or contract but using the minimum standards of mortality and rate of interest and replacing the valuation net premium by the actual gross premium in each contract year for which the valuation net premium exceeds the actual gross premium.~~
8. All acts and parts of acts inconsistent with the provisions of this Act are hereby repealed as of the effective date of this Act. This Act shall be effective January first, nineteen hundred and forty-four.

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ATTACHMENT A-3 -- (As Adopted)

Proposed Changes in the Standard Nonforfeiture Law  
(Additions are underlined, deletions are ~~lined through~~)

Change the Title:

"STANDARD NONFORFEITURE LAW FOR LIFE INSURANCE"

Section 1. Amend to read:

"1. This Act shall be known as the Standard Nonforfeiture Law For Life Insurance"

Section 5-a. Amend the first sentence to read as follows:

"5-a. In the case of Ordinary policies issued on or after the operative date of this Section five-a as defined herein, all adjusted premiums and present values referred to in this Act shall be calculated on the basis of the Commissioners 1958 Standard Ordinary Mortality Table and the rate of interest specified in the policy for calculating cash surrender values and paid-up nonforfeiture benefits provided that such rate of interest shall not exceed three and one-half percent (3½%) per annum except that a rate of interest not exceeding four percent (4%) per annum may be used for policies issued on or after (insert effective date of 1972 NAIC Amendments to the Standard Nonforfeiture Law) ~~the effective date of this amendatory Act of 197 and prior to January 1, 1986 and prior to the effective date of this amendatory act of 197~~ and a rate of interest not exceeding five and one-half percent (5½%) per annum may be used for policies issued on or after the effective date of this amendatory Act of 197, except that for any single premium whole life or endowment insurance policy a rate of interest not exceeding six and one-half percent (6½%) per annum may be used and provided that for any category of Ordinary insurance issued on female risks, adjusted premiums and present values may be calculated according to an age not more than three six years younger than the actual age of the insured."

Section 5-b. Amend the first sentence to read as follows:

"5b. In the case of Industrial policies issued on or after the operative date of this Section five-b as defined herein, all adjusted premiums and present values referred to in this Act shall be calculated on the basis of the Commissioners 1961 Standard Industrial Mortality Table and the rate of interest specified in the policy for calculating cash surrender values and paid-up nonforfeiture benefits provided that such rate of interest shall not exceed three and one-half percent (3½%) per annum, except that a rate of interest not exceeding four percent (4%) per annum may be used for policies issued on or after (insert effective date of 1972 NAIC Amendments to the Standard Nonforfeiture Law) ~~the effective date of this amendatory Act of 197 and prior to January 1, 1986 and prior to the effective date of this amendatory Act of 197~~ and a rate of interest not exceeding five and one-half (5½%) per annum may be used for policies issued on or after the effective date of this amendatory Act of 197, except that for any single premium whole life or endowment insurance policy at a rate of interest not exceeding six and one-half percent (6½%) per annum may be used.

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## ATTACHMENT A-4 - (As Received)

Recommendation 3 concerns only Section 3 of the Standard Valuation Law. Assuming recommendation 2 is adopted only the following part of Section 3 would be changed: (The added wording is underlined)

3. Except as otherwise provided in Section three-a, the minimum standard for the valuation of all such policies and contracts issued prior to the effective date of this Act shall be that provided by the laws in effect immediately prior to such date, except that the minimum standards for the valuation of annuities and pure endowments purchased under group annuity and pure endowment contracts issued prior to such effective date shall be that provided by the laws in effect immediately prior to such date but replacing the interest rates as specified in such laws by an interest rate of five percent (5%) per annum. Except as otherwise provided in Section three-a, the minimum standard for the valuation of all such policies and contracts issued on and after the effective date of this Act shall be the commissioners reserve valuation methods defined in Sections four, four-a and seven, five percent (5%) interest for group annuity and pure endowment contracts and three and one-half percent (3½%) interest for all other such policies and contracts, or in the case of policies and contracts other than annuity and pure endowment contracts, issued on or after (insert effective date of 1972 NAIC Amendments to the Standard Valuation Law), four percent (4%) interest for such policies issued prior to the effective date of this amendatory Act of 197 , five and one-half percent (5½%) interest for single premium life insurance policies and four and one-half percent (4½%) interest for all other policies issued on or after the effective date of this amendatory Act of 197 , and the following tables: . . .

*[Remainder of Section 3 is unchanged.]*

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ATTACHMENT B

An Explanation of the Standard Nonforfeiture Law  
for Individual Deferred Annuities

1. The Need for A Standard Nonforfeiture Law for Individual Deferred Annuities

For many years, only the states of New York, New Jersey and Washington have had nonforfeiture laws for individual annuities that resembled the Standard Nonforfeiture Law which is applicable to life insurance. Several other states have had laws with generally lower requirements.

Until the last few years relatively few individual deferred annuities have been sold. The rapidly expanding individual annuity market of the last two or three years has been created primarily by two forces:

- (a) The higher interest rates that insurers are now able to credit on individual annuities make them attractive for funding individual retirement benefits.
- (b) The Employee Retirement Income Security Act of 1974 has greatly increased the market for individual retirement benefits provided under HR-10 Pension Plans for the self-employed and their employees, and for Individual Retirement Accounts for those not currently covered by a qualified pension plan.

The increased sales, coupled with the lack of any statutory control in most states, has stimulated the sale of some contracts providing little or no nonforfeiture benefits in early contract years and inconsistencies in regulatory action to correct that problem. A rising tide of consumer complaints affirms a need for some form of uniform legislation with respect to nonforfeiture values for individual deferred annuities.

2. Why A Separate Nonforfeiture Law is Needed for Individual Deferred Annuities

The Standard Nonforfeiture Law for life insurance defines the nonforfeiture value as equal to the present value of the future guaranteed benefits less the present value of the future adjusted premiums. This approach could be used for those annuities which have fixed considerations specified in the contract. However, many annuity contracts now provide for flexible considerations which can be varied by the contractholder both as to their amount and timing. Under such contracts the present value of future benefits will depend upon future considerations actually collected under the contract, and the present value of future considerations cannot be determined. The only approach which appears to be applicable to all forms of individual deferred annuities is to require guaranteed nonforfeiture benefits to be at least as favorable as minimum nonforfeiture amounts defined at any particular time, as the accumulation at a specified minimum interest rate of certain minimum specified portions of the considerations actually collected.

### 3. Interest Rate Assumed in Specifying Minimum Nonforfeiture Amounts

Deferred annuity contracts must guarantee the accumulation at interest of a portion of the considerations received over a long period of time, and yet, for contracts with cash surrender values, the contractholder may demand cash at any time during the accumulation period resulting in the possibility of a substantial loss on sale of investments in the event of surrender of such contracts. For these reasons it is recommended that the accumulation interest rate to be used for determining minimum nonforfeiture values be 3%.

### 4. Portion of Annuity Considerations to be Accumulated in Specifying Minimum Nonforfeiture Amounts

In deciding what portion of the annuity consideration should be accumulated to determine the minimum nonforfeiture amounts, the task force realized that some allowance should be made for acquisition and maintenance expenses, and for premium taxes and that the purpose of standard legislation is to define minimum nonforfeiture values. The proposed standard legislation for flexible consideration contracts defines the portions of the considerations to be accumulated as percentages of the net of the considerations received in each contract year less a maintenance charge of \$30 per contract year and less a collection charge of \$1.25 per consideration with the specification that in no case would the portion of the considerations to be accumulated for any contract year be permitted to become negative. For deferred annuities providing considerations of predetermined amounts the proposed standard legislation defines the portions of the considerations to be accumulated as percentages of the net of the gross annual considerations received less a maintenance charge for each contract year equal to the lesser of \$30 or 10% of the gross annual consideration payable for that contract year.

The percentages recommended in the proposed standard legislation are 65% of the net considerations for the first contract year and 87½% of the net considerations for all other contract years, where the net considerations are the portions of the gross considerations remaining after deducting the maintenance and collection charges referred to above. To allow for acquisition costs associated with an increase in payments to a new higher level in renewal contract years, but to place some limit on the amount of such costs allowed as a deduction from the gross consideration, particularly when one of the renewal gross considerations is very large compared to the previous considerations, the proposed standard legislation states that the percentage shall be 65% of the part of the excess of the net consideration received in any single contract year which is not more than two times the sum of those portions of the net considerations in all prior contract years for which the percentage was 65%. To limit the allowance for acquisition costs on a fixed consideration contracts where the first year consideration is larger than renewal considerations, the proposed standard legislation states that the portion of the net consideration for the first contract year to be accumulated shall be the sum of 65% of the net consideration for the first contract year plus 22½% of the excess of the net consideration for the first contract year over the lesser of the net considerations for the second and third contract years. This prevents excessive expense allowances for high initial consideration plans.

For single consideration annuities, the proposed standard legislation determines the minimum nonforfeiture value as equal to an accumulation at an interest rate of 3% of 90% of the net single consideration, the net consideration defined as the gross single consideration less a single charge for maintenance expenses of \$75.

Table B1 shows some illustrative minimum cash values and yield rates on gross considerations received while Table B2 shows the cash values and gross premium yield rates for two plans illustrative of those currently offered by some insurers.

DATE: 10 21 76

Table B1  
MINIMUM NONFORFEITURE VALUES  
INDIVIDUAL DEFERRED ANNUITIES

EFFECT OF REMOVING CONTRACT CHARGE  
ON CASH SURRENDER VALUE

## BASIS FOR VALUES:

## ANNUAL CONSIDERATION CONTRACTS

ANNUAL CONTRACT CHARGE - THE LESSER OF \$30 OR 10% OF ANNUAL CONSIDERATION PERCENTAGE OF NET OF ANNUAL CONSIDERATION LESS CONTRACT CHARGE WHICH IS ACCUMULATED FOR SURRENDER VALUE - FIRST YEAR 65%, OTHER YEARS 87.5% ACCUMULATED AT INTEREST RATE OF 3% PER ANNUM

## SINGLE CONSIDERATION CONTRACTS

CONTRACT CHARGE - \$75  
PERCENTAGE OF NET OF CONSIDERATION LESS CONTRACT CHARGE ACCUMULATED FOR SURRENDER VALUE - 90%  
ACCUMULATED AT INTEREST RATE OF 3% PER ANNUM

POL YR	3000 ANNUAL PREMIUM			120 ANNUAL PREMIUM			10000 SINGLE PREMIUM		
	WITH CONTRACT CHARGE	WITHOUT CONTRACT CHARGE	RATIO WITHOUT TO WITH	WITH CONTRACT CHARGE	WITHOUT CONTRACT CHARGE	RATIO WITHOUT TO WITH	WITH CONTRACT CHARGE	WITHOUT CONTRACT CHARGE	RATIO WITHOUT TO WITH
1	1988	2009	1.010	72	80	1.111	9200	9270	1.008
2	4725	4773	1.010	172	191	1.111	9476	9548	1.008
3	7543	7619	1.010	274	305	1.111	9761	9835	1.008
4	10446	10552	1.010	380	422	1.111	10054	10130	1.008
5	13436	13572	1.010	489	543	1.111	10355	10433	1.008
6	16516	16683	1.010	601	667	1.111	10666	10746	1.008
7	19688	19887	1.010	716	795	1.111	10986	11069	1.008
8	22955	23187	1.010	835	928	1.111	11315	11401	1.008
9	26321	26587	1.010	957	1063	1.111	11655	11743	1.008
10	29787	30088	1.010	1083	1204	1.111	12004	12095	1.008
11	33357	33694	1.010	1213	1348	1.111	12364	12458	1.008
12	37035	37409	1.010	1347	1496	1.111	12735	12831	1.008
13	40822	41235	1.010	1484	1649	1.111	13117	13216	1.008
14	44724	45176	1.010	1626	1807	1.111	13511	13613	1.008
15	48742	49235	1.010	1772	1969	1.111	13916	14021	1.008
16	52881	53415	1.010	1923	2137	1.111	14333	14441	1.008
17	57144	57721	1.010	2078	2309	1.111	14763	14875	1.008
18	61535	62157	1.010	2238	2486	1.111	15206	15321	1.008
19	66058	66725	1.010	2402	2669	1.111	15662	15780	1.008
20	70716	71431	1.010	2571	2857	1.111	16132	16254	1.008
25	96190	97162	1.010	3498	3886	1.111	18701	18843	1.008
30	125720	126989	1.010	4572	5080	1.111	21679	21843	1.008
35	159952	161567	1.010	5816	6463	1.111	25132	25322	1.008
40	199637	201652	1.010	7260	8066	1.111	29134	29355	1.008

TABLE B2

SPECIMEN NONFORFEITURE VALUES  
INDIVIDUAL DEFERRED ANNUITIES  
OFFERED BY TWO COMPANIES

ILLUSTRATION 1

ACCUMULATION OF A PERCENTAGE OF  
THE GROSS CONSIDERATION:  
85% FIRST YEAR  
95% SECOND THROUGH TENTH YEARS  
100% THEREAFTER  
AT THE RATE OF 9% IN THE FIRST YEAR  
GRADING DOWNWARD EACH YEAR BY  
.5% INCREMENTS TO NO LOWER  
THAN 3.0%.

ILLUSTRATION 2

ACCUMULATION OF 95% OF THE NET OF  
THE GROSS ANNUAL CONSIDERATION  
LESS AN ANNUAL CONTRACT CHARGE OF  
THE LESSER OF \$25 OR 10% OF THE  
GROSS ANNUAL CONSIDERATION  
AT THE RATE OF 7.5% FOR THE FIRST  
TEN YEARS AND 3.0% THEREAFTER.

POLICY YEAR	FOR AN ANNUAL CONSIDERATION OF:				FOR AN ANNUAL CONSIDERATION OF:			
	\$3000		\$120		\$3000		\$120	
	CASH VALUE	GROSS YIELD	CASH VALUE	GROSS YIELD	CASH VALUE	GROSS YIELD	CASH VALUE	GROSS YIELD
1	2780	-0.07350	111	-0.07350	3038	0.01274	110	-0.08090
2	6108	0.01195	244	0.01194	6304	0.03344	229	-0.03126
3	9675	0.03658	387	0.03658	9815	0.04399	356	-0.00513
4	13464	0.04659	539	0.04658	13590	0.05038	493	0.01099
5	17456	0.05097	698	0.05097	17647	0.05467	641	0.02192
6	21626	0.05267	865	0.05268	22009	0.05774	799	0.02981
7	25944	0.05288	1038	0.05288	26698	0.06005	969	0.03577
8	30378	0.05218	1215	0.05218	31738	0.06184	1152	0.04043
9	34889	0.05088	1396	0.05088	37157	0.06328	1349	0.04417
10	39437	0.04918	1577	0.04918	42981	0.06445	1560	0.04723
15	62859	0.04073	2514	0.04073	65282	0.04523	2370	0.03366
20	89275	0.03647	3571	0.03647	91134	0.03830	3308	0.02965
25	119898	0.03439	4796	0.03439	121102	0.03510	4396	0.02824
30	155397	0.03322	6216	0.03322	155843	0.03338	5658	0.02774
35	196549	0.03248	7862	0.03248	196117	0.03238	7120	0.02761
40	244257	0.03199	9771	0.03199	242807	0.03174	8815	0.02763

##### 5. Contracts Without A Cash Nonforfeiture Option

According to the proposed standard legislation, unless a deferred annuity contract provides for a lump sum settlement at maturity, cash surrender values are not required, but a paid up annuity nonforfeiture benefit is required. Such paid up annuity benefits need not have accompanying death benefits. If either a death benefit or a cash surrender value is not provided, or if neither is provided, the contract must include a statement in a prominent place that such benefits are not provided.

Some purchasers of annuities may wish to emphasize an annuity income rather than intermediate cash surrender values or a cash maturity benefit; other purchasers may wish to have access to a cash maturity value and intermediate cash values even if it involves some sacrifice in annuity income that will commence at the end of the deferred period. Annuity contracts without cash values can be sold to provide higher annuity benefits than the insurer would be able to give if it has to be always prepared to meet intermediate and relatively unpredictable cash withdrawals, particularly at times when the market values of investments made from previous payments are depressed because of higher interest rates available on new investments. If nonforfeiture benefits were in the form of paid-up annuities rather than cash benefits, an insurer could invest monies from annuity payments in longer-term generally higher-yielding investments. Additional earnings on such investments could be used to provide a higher retirement income for the annuitant.

In many cases individual annuity contracts are purchased by a third party, such as an employer in the implementation of a pension plan; much more rarely, they are purchased by the relative of an incompetent person where the objective is to provide a retirement income that cannot be dissipated prior to the time when it is needed. Also an employer may discharge his pension obligation to a former employee by purchasing a paid-up annuity from an insurance company. In all these circumstances, annuities without cash values are desirable to avoid thwarting the very purpose for which the contracts were purchased.

The proposed legislation provides that, for contracts which do not provide cash surrender value benefits, the present value of any paid-up annuity benefit available as a nonforfeiture option at any time prior to maturity shall not be less than the present value of that portion of the maturity value of the paid-up annuity benefit provided under the contract arising from considerations paid prior to the time the contract is surrendered or changed to a paid-up annuity. The present value calculated for the period prior to maturity is determined on the basis of the interest rate specified in the contract for accumulating the net considerations to determine the maturity value, and increased by any existing additional amounts credited by the company to the contract (dividend paid-up additions on participating plans). For contracts providing for neither death benefits nor cash surrender values, the present values shall be calculated on the basis of such interest rate and mortality table specified in the contract for determining the amount of the paid-up annuity benefit.

For contracts with paid-up annuity nonforfeiture options, whether or not a cash surrender option is also available, a maturity age or date is required for the purpose of determining the amount of such paid-up annuity benefits. For those contracts specifying one or more dates at which annuity payments may commence, the maturity date used to determine the amount of paid-up annuity nonforfeiture benefit is the last date for which election is permitted by the contract. However, if no maturity date is indicated in the deferred annuity contract or if the last optional maturity age is over 70, the proposed legislation states that the maturity date shall not be deemed to be later than the anniversary of the contract next following the annuitant's seventieth birthday or tenth anniversary of the contract, whichever is later.

##### 6. Actuarial Equivalence of Cash Value and Paid-Up Annuities

For contracts providing both cash surrender value and paid-up annuity nonforfeiture options, requiring full actuarial equivalence of cash values and annuities at all durations would hinder the development of deferred annuity contracts providing paid-up annuity nonforfeiture benefits based upon the assumption of interest rates higher than those used in the accumulation of cash surrender values, because of the problem caused by heavy cash surrenders at times of depressed market values of investments which may have to be sold to provide for intermediate cash surrender benefits. The proposed standard legislation permits the cash surrender values at intermediate durations to be less than the actuarially equivalent value of the paid-up annuity value, but does at the same time require actuarial equivalence at the time of maturity of the contract by a method which gradually eliminates such differences as the duration of the contract approaches the maturity date.

The method provided by the proposed standard legislation, with respect to certain types of deferred annuity contracts guaranteeing annuity benefits based upon nonforfeiture amounts greater than minimum, is to require the cash surrender values on such contracts to be at least equal to the greater of either:

- (a) The Minimum Nonforfeiture Amounts; or
- (b) The present value of the contractually guaranteed paid-up annuity nonforfeiture benefit at maturity of the contract, discounted for interest at a rate not more than one percent higher than the interest rate used in accumulating net considerations to determine annuity benefits.

This approach, applicable to contracts offering paid-up annuity nonforfeiture benefits based on Nonforfeiture Amounts greater than the Minimum, enables the insurer to shift its emphasis toward more generous guaranteed paid-up annuity benefits rather than larger guaranteed intermediate cash values. Such a change in emphasis is proper in an annuity contract. At the same time a reasonable progression of cash withdrawal benefits grading into the ultimate maturity benefits would be provided for those contractholders who wish to cancel their annuity contracts. Table B3 provides some illustrative numerical results. (See Table B3 on following page.)

#### 7. Nonforfeiture Information in the Contract

The proposed standard legislation requires certain contract provisions:

- (a) That upon cessation of payment of considerations under a contract a paid-up annuity benefit must be granted on a plan stipulated in the contract of such value as specified elsewhere in the proposed standard legislation.
- (b) If a contract provides for a lump sum settlement at maturity, or at any other time, that upon surrender of the contract at or prior to the commencement of any annuity payments, a cash surrender benefit must be made available in lieu of any paid-up annuity benefit of such amount as specified elsewhere in the proposed standard legislation. The insurer shall reserve the right to defer the payment of such cash surrender benefit for a period of six months after demand therefor with surrender of the contract.
- (c) A statement of the mortality table, if any, and interest rates used in calculating any minimum paid-up annuity, cash surrender or death benefits that are guaranteed under the contract, together with sufficient information to determine the amounts of such benefits.
- (d) A statement that any paid-up annuity, cash surrender or death benefits that may be available under the contract are not less than the minimum benefits required by any statute of the state in which the contract is delivered and an explanation of the manner in which such benefits are altered by the existence of any additional amounts credited by the company to the contract, any indebtedness to the company on the contract or any prior withdrawals from or partial surrenders of the contract.

#### 8. Conclusion

The Valuation and Nonforfeiture Value Regulation Technical Task Force believes that the Standard Nonforfeiture Law for Individual Deferred Annuities as proposed by the task force is a most necessary and urgent item of legislation which should be adopted by the NAIC at this time for recommendation to the various state legislatures for enactment of uniform legislation.

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TABLE B3

## INDIVIDUAL DEFERRED ANNUITIES

DIFFERENCE BETWEEN ANNUITY AND CASH NONFORFEITURE BENEFITS  
FOR CONTRACTS WITH HIGHER THAN MINIMUM GUARANTEES

BASED ON: ANNUAL PAYMENTS OF \$3000  
ANNUAL CONTRACT CHARGE OF \$30  
ACCUMULATING 65% OF THE NET CONSIDERATION FOR THE FIRST CONTRACT YEAR  
AND 87.5% OF THE NET CONSIDERATIONS FOR REMAINING CONTRACT YEARS

(1)	(2)	ASSUMING THAT THE ACCUMULATION OF NONFORFEITURE AMOUNTS IS GUARANTEED AT 4% INTEREST (*)					ASSUMING THAT THE ACCUMULATION OF NONFORFEITURE AMOUNTS IS GUARANTEED AT 6% INTEREST (*)				
		MINIM NONFORF AMOUNTS	ANNUITY BENEFIT	DISCNTD VALUE OF PAID-UP ANNUITY BENEFIT	% DIFF BETWEEN CASH AND ANNUITY BENEFIT	MINIM NONFORF AMOUNTS	ANNUITY BENEFIT	DISCNTD VALUE OF PAID-UP ANNUITY BENEFIT	% DIFF TWEEN CASH AND ANNITY BNFT		
		NET CONSID ACCU AT 3%	NET CONSID ACCU AT 4%	AT 5%	CASH BENEFIT	NET CONSID ACCU AT 3%	NET CONSID ACCU AT 6%	AT 7%	CASH BENEFIT		
10	1	1988	2008	1842	1988	1%	1988	2046	1881	1988	3%
	5	13436	13826	13180	13436	3%	13436	14634	13963	13963	5%
	10	29787	31459	31459	31459	0%	29787	35112	35112	35112	0%
20	1	1988	2008	1674	1988	1%	1988	2046	1712	1988	3%
	5	13436	13826	11977	13436	3%	13436	14634	12711	13436	9%
	10	29787	31459	28588	29787	6%	29787	35112	31965	31965	10%
	15	48742	52914	50441	50441	5%	48742	62515	59648	59648	5%
	20	70716	79016	79016	79016	0%	70716	99188	99188	99188	0%
30	1	1988	2008	1521	1988	1%	1988	2046	1559	1988	3%
	5	13436	13826	10884	13436	3%	13436	14634	11572	13436	9%
	10	29787	31459	25980	29787	6%	29787	35112	29100	29787	18%
	15	48742	52914	45838	48742	9%	48742	62515	54302	54302	15%
	20	70716	79016	71805	71805	10%	70716	99188	90298	90298	10%
	25	96190	110773	105597	105597	5%	96190	148260	141460	141460	5%
	30	125720	149408	149408	149408	0%	125720	213932	213932	213932	0%
40	1	1988	2008	1382	1988	1%	1988	2046	1419	1988	3%
	5	13436	13826	9891	13436	3%	13436	14634	10535	13436	9%
	10	29787	31459	23609	29787	6%	29787	35112	26492	29787	18%
	15	48742	52914	41655	48742	9%	48742	62515	49436	49436	26%
	20	70716	79016	65252	70716	12%	70716	99188	82205	82205	21%
	25	96190	110773	95961	96190	15%	96190	148260	128781	128781	15%
	30	125720	149408	135773	135773	10%	125720	213932	194758	194758	10%
	35	159952	196415	187237	187237	5%	159952	301814	287971	287971	5%
	40	199637	253604	253604	253604	0%	199637	419421	419421	419421	0%

(1) INITIAL DEFERRED PERIOD

(2) CONTRACT DURATION

(\*) IN ORDER TO DETERMINE THE VALUE OF THE ANNUITY BENEFIT AT MATURITY

## ATTACHMENT C

An Explanation of the Need to Increase Maximum  
Interest Rate Assumptions in the Standard  
Valuation and Nonforfeiture Laws

1. Introduction and Description of the Changes Recommended

In December 1972, the NAIC amended the Standard Valuation Law to increase the interest rates used to define minimum liabilities from 3½% to 6% for group annuities and single premium immediate annuities and to 4% for all other annuities and life insurance contracts. At the same time, the NAIC amended the Standard Nonforfeiture Law to increase the maximum interest rate that may be specified in a contract for use in calculating minimum nonforfeiture benefits from 3½% to 4%. The change recognized that the level of investment return on life insurance company investments had risen significantly since the Standard Valuation and Nonforfeiture Laws were originally adopted in the 1940's. The 1972 amendments also drew a distinction between reserves for contracts involving short term commitments in the neighborhood of 10 to 15 years and those involving commitments extending over a generation or more. For the former, a higher statutory interest rate for computing minimum reserve requirements is justified since the risks associated with yields on reinvestment many years in the future are minimal for such contracts. The higher rates allowed on group pension business by the 1972 amendments recognized the lower rate of federal income taxes paid by companies on qualified pension plan business as compared to that paid on other business.

The 1972 amendments gave life insurers relief from surplus strains caused by excessive reserve requirements, including deficiency reserves. However, long term interest rates since 1972 have advanced to even higher levels, and the relief from surplus strain obtained through the 1972 amendments has been eroded as minimum reserve standards have again become excessive. Economists generally indicate that interest rates are likely to continue to fluctuate around their current high levels for the indefinite future. Therefore, it is recommended that the statutory interest rates in the Standard Valuation and Nonforfeiture Laws again be increased to bring these laws more into line with current economic realities and with those of the foreseeable future.

A development which makes it easier to obtain a more precise evaluation of reserve liabilities is the new requirements in the NAIC Annual Statement that an opinion be given by a qualified actuary as to whether reserves "make a good and sufficient provision for all unmatured obligations of the company guaranteed under the terms of its policies." Since actuaries are required to certify to the sufficiency of reserves, the Standard Valuation Law should be designed to permit more flexibility in accommodating different product designs and should serve as a minimum standard of valuation within which actuaries can tailor reserves to provide for liabilities under various types of products. The proposed increases provide more flexibility by reflecting differences in reserving for short term as opposed to long term insurance liabilities.

Specifically, the following changes in statutory interest rates are proposed, recognizing where possible the broad variations in investment risks by type of product.

- a. Changes in the Standard Valuation Law with respect to policies and contracts issued on or after the effective date of such amendments:
  - (1) For group annuities and single premium individual immediate annuities purchased:
    - (a) Prior to January 1, 1990 - 7½% (6% present law).
    - (b) On or after January 1, 1990 - 6%.
  - (2) For single premium life insurance policies and single premium individual deferred annuity contracts - 5% (4% present law).
  - (3) For all other life insurance and all other individual deferred annuity contracts - 4½% (4% present law).
- b. Changes in the Standard Nonforfeiture Law for Life Insurance with respect to policies and contracts issued on or after the effective date of such amendments:
  - (1) For single premium whole life and endowment policies - 6½% (4% present law).
  - (2) For all other life insurance policies - 5½% (4% present law).

This will allow insurers to bring nonforfeiture values more closely in line with the asset shares that emerge from today's pricing assumptions.

- c. Remove the provisions in the Standard Valuation and Nonforfeiture Laws which stipulate that all statutory interest rates shall be 3½% on and after January 1, 1986.

## 2. Relationships Among Minimum Valuation Standards, Minimum Nonforfeiture Standards and Product Pricing

In establishing any minimum reserve standard, there is a need to strike a proper balance between considerations of solvency and the need for companies to be able to set appropriate prices for their products. An overly conservative reserve standard causes artificial surplus strain that may overwhelm normal competition and force companies either to curtail solicitation of new business or to increase prices to generate the funds needed to meet required reserves. If minimum reserve standards are so conservative as to produce a valuation net premium that is larger than the gross premium charged for any policy or contract, under the present statute an additional deficiency reserve must be established equal to the present value of the excess of net valuation premiums over gross premiums. This lessens competition by making it difficult for insurers to charge gross premiums that are lower than the valuation net premium. The proposed legislation would relieve this situation (See Attachment F).

The Standard Nonforfeiture Law places a statutory maximum on the interest rate that may be specified in a contract for use in calculating minimum nonforfeiture benefits. As in the case of reserves, a higher statutory interest rate permits companies to accumulate a smaller amount of funds for life insurance nonforfeiture values which allows for more competitive premium rates.

The statutory valuation interest rate structure should be kept simple and at the same time reflective of the different investment risks associated with various kinds of products by establishing separate statutory valuation interest rates for three broad categories of products:

### a. Least Investment Risk

This category consists of those products involving the receipt of a single consideration to be invested at current yields and paid out subsequently in installments over a relatively short period of time (e.g. 15-20 years). For such products, there is little reinvestment risk since maturities of liabilities can be roughly matched against the maturities of assets supporting those liabilities, and there are no rights to withdraw the promised installments in advance of their due rates. This category includes all group annuities and individual single premium immediate annuities and should be accorded the highest statutory valuation interest rate in recognition of the minimal impact which subsequent changes in yields will have on an insurer's ability to meet its obligations under contracts in this category.

### b. Moderate Investment Risk

This category consists of those contracts which involve the receipt of a single consideration to be invested at current yields and used to provide benefits whose commencement may be deferred for a considerable period of time. Such contracts generally provide withdrawal values prior to the payment of scheduled benefits. This category includes individual single premium deferred annuities and group and individual single premium life insurance. Since there is both a reinvestment risk and a risk of investment antiselection on withdrawal, a lower statutory valuation interest rate is appropriate for this category.

### c. Greatest Investment Risk

This category contains contracts which involve, in addition to deferred or long term liabilities and withdrawal rights, the investment of considerations which may be received many years in the future. Not only is there a reinvestment risk and an investment selection risk on withdrawal for this category, but there is also a long term investment risk associated with premium rate guarantees in the distant future. For this category, which includes annual premium life insurance and annual premium individual deferred annuities, it is appropriate to use the most conservative statutory valuation interest rate in recognition of the long term investment risks assumed under the contract, both as to considerations and as to benefits.

## 3. Interest Rate Trends During the 1970's and Increased Surplus Strain

In the earlier 1970's, yields on high grade securities ranged from about 7% to 8% per annum. Subsequently, interest rates on high grade securities have risen to 8½% to 9% per annum. Yields on new investments by life insurers have also risen above the levels which prevailed in the early 1970's. An American Council of Life Insurance survey of yields on new fixed

income investments by 60 companies accounting for about 65% of assets held in general accounts of life insurance companies showed yields on new investments that averaged 9.08% in 1974 and 9.87% in 1975. The aggregate yield on life insurer's total general account investment portfolio has climbed steadily upward during the decade and is now well over 6% for all insurers combined. Figure 1 shows average annual rates of interest from 1910 to 1975 for long term and short term investments and the net rate earned on life insurance company invested funds excluding separate accounts.

An example of the surplus strain caused by requiring overly conservative reserve interest assumptions in the face of higher investment yields and competitive pricing can be illustrated by a comparison of net single premiums for a life annuity of \$100 per month to a male age 65 on the basis of the 1971 Group Annuity Mortality Table and various interest rates. The net single premium for such an annuity calculated on the basis of the 71 GAM Table and 9% interest, which is representative of interest rates currently used in determining group annuity benefits, is \$9,205. However, the required reserves for this annuity calculated on the basis of the minimum reserve basis of 6% interest and the 71 GAM Table is \$11,122 or 21% more than the net premium used in pricing the benefit.

A similar calculation can be made for a life annuity of \$100 per month commencing at age 65 for a male now age 55, which is a typical weighted average age in the case of annuities sold to fund terminating pension plans. In this case the net premium based on 9% interest and the 71 GAM Table is \$3,409 while the required reserve based on 6% interest and the 71 GAM Table is \$5,445 or an additional 60% above the net premium used in pricing the benefit must be established as reserves. Under the proposed group annuity reserve standards of 7½% interest and the 71 GAM Table, the required reserves for the benefit described above for a male age 65 would be \$10,079 and for a male age 55 would be \$4,287, an increase of 9% and 26% respectively, above the net premiums used in pricing such benefits as calculated on the basis of 9% interest and the 71 GAM Table.

Similar surplus strains arise from the sale of individual single premium annuities and individual deferred annuities where prices reflect both current and expected future yields on investments. Although the surplus strain is not quite so acute for life insurance contracts involving a longer time span over which premiums are received and benefit payments are made, a change in life insurance as well as in annuity statutory interest rates is both needed and appropriate. Since current interest earnings and expected future investment yields are an integral part of the pricing of all life insurance and annuity products, surplus strains varying in intensity by type of product are pervasive throughout the life insurance industry.

#### 4. Future Economic Trends and Expected Levels of Interest Rates

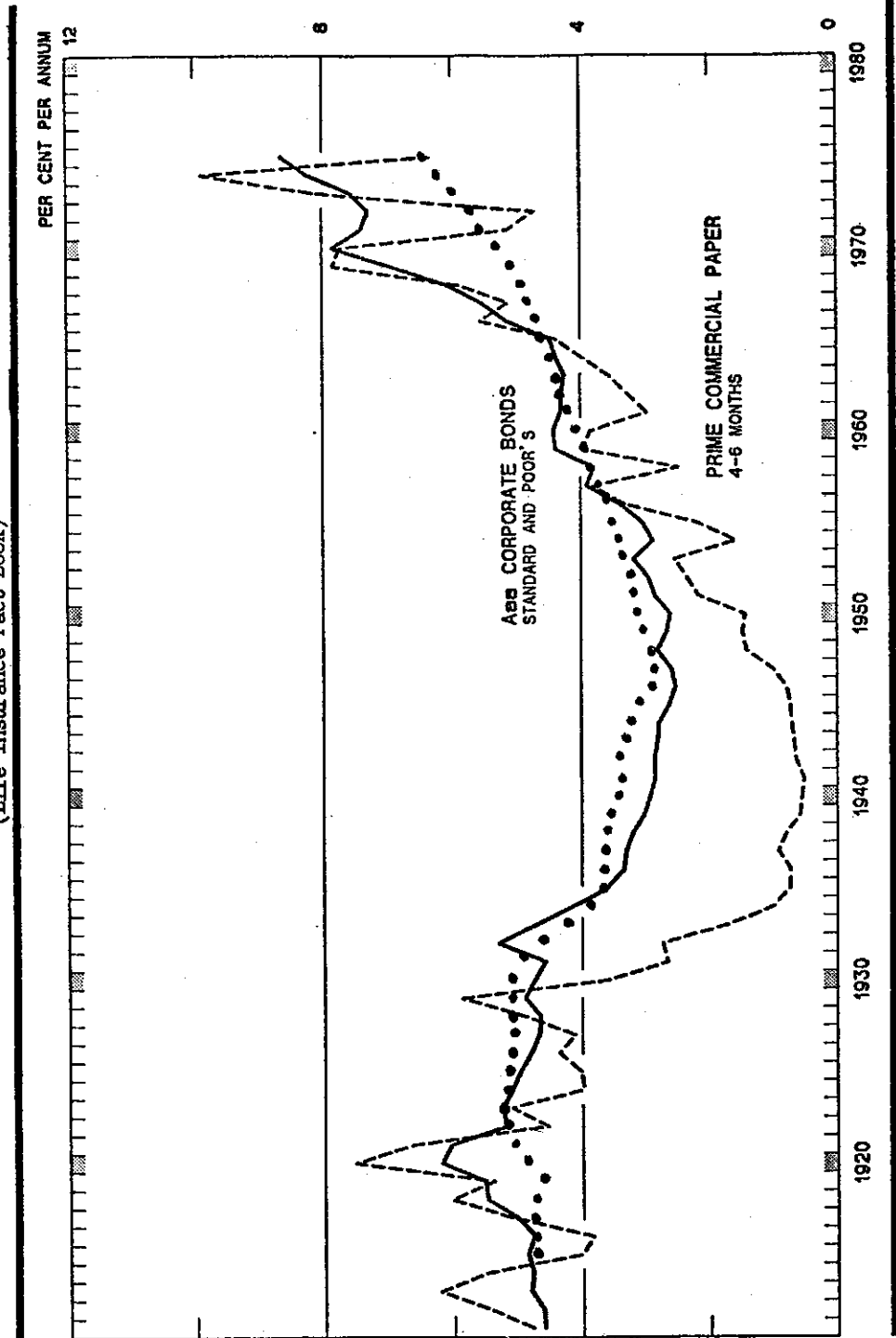
Economists today generally view long term interest rates as consisting of two parts, a basic "real" rate of interest and an inflation premium. The basic "real" rate of interest, which reflects the interaction between the supply and demand for capital, has remained relatively stable over several decades at about 3½%. However, some economists believe that a growing capital shortage may push the basic "real" rate about one-half percent higher in future years. The capital shortage arises from greater demands for investment funds caused by the need for pollution control equipment, larger capital requirements for energy supplies needed to fulfill this country's goal of energy independence and higher replacement costs for capital equipment. Another contributing factor is the expectation of a smaller supply of savings as the U.S. experiences a demographic shift toward more young adults and families who tend to be new consumers rather than net savers.

In addition to the basic "real" rate of interest, long term interest rates include an inflation premium, demanded by the lenders to compensate for the expected loss in real value of capital funds which are advanced. Therefore, a principal determining factor in the level of long term interest rates is the rate of inflation.

Most economists believe that the rate of inflation will average about 5½% per year over the next decade although this does not preclude fluctuations on either side of the average as a result of business cycles. The commitment of the federal government to economic growth and full employment even at the expense of some inflation has tended to institutionalize the process. Another factor making it difficult to reduce already existing inflation is the growing use of automatic escalator clauses. Such clauses are built into wage contracts, the Social Security system, the Federal Food Stamp Program and federal retirement programs for both civilian and military employees. The fact that increases in labor costs have been about 8% a year while real increases in productivity have been in the 2½% to 3% range is an additional contributing factor to continuing inflation.

Translating expectations of inflation averaging about 5½% and a basic "real" rate of return on capital of 3½% or more into yields on high grade long term bonds leads most economists to believe that yields will be in the 8% to 9% range for the foreseeable future. In fact there is a general consensus among economists that we are unlikely ever again to see the 4% to 6% yields that characterized high grade bonds during the 1960's.

FIGURE 1  
AVERAGE ANNUAL RATES OF INTEREST, 1910-1975  
LONG TERM ———  
SHORT TERM - - - - -  
(1976 Historical Chart Book, Board of Governors of the Federal Reserve System)  
NET RATE OF INTEREST EARNED ON LIFE INSURANCE COMPANY INVESTED FUNDS EXCLUDING SEPARATE ACCOUNTS . . . . .  
(Life Insurance Fact Book)



The highly regarded Data Resources, Inc. econometric study, The Capital Shortage, predicts some slight easing of yields on the highest-grade corporate bonds to the 8½% to 8% range over the next four years followed by an increase in yields in the 1980's to about 9%. This projection is based on an economic model which assumes that the federal government pursues fiscal and monetary policies designed to promote steady sustained growth. Under this basic projection, demand for capital slackens somewhat until excess capacity created by the recent recession is brought back into production. As the recovery continues and capacity utilization rates rise, additional demands for capital funds will push interest rates back to the 9% level. On the other hand, a government policy designed to accelerate economic recovery and to achieve full employment as soon as possible would create greater inflationary tendencies and could lead to credit crunches and interest rates on the highest-grade corporate bonds that reach double digit levels before 1980.

One question that is asked is whether a major economic depression might develop in the foreseeable future which would bring a substantial decline in interest rate levels. Economists are generally agreed that this is unlikely in view of strong political pressure and the existence of the economic tools to combat any major downturn in economic activity. Economists generally acknowledge that the price of government stimulation of the economy is a long run bias toward inflation. In addition, demands for technological innovation, export of capital and technology to developing nations of the world and worldwide population pressures and desires for a rising standard of living will all generate continuing demands for capital and external inflationary pressures. All of these factors point to a probable continuation of interest rates near their current levels.

#### 5. Rationale for Statutory Interest Rate Changes for Particular Types of Annuity Products

For annuity products involving short term guarantees and the investment of premiums immediately or in the near future, it is appropriate to establish a statutory valuation interest rate which comports with yields on new investments which have a major effect on the pricing of such products. Such products include group annuities and single premium individual immediate annuities. Guarantees under these products generally involve a commitment to make benefit payments over a short specified period of time such as ten years or over the remainder of a pensioner's lifetime which averages about 15 years. Since the average maturity of insurers' new investments is longer than the average duration of such contracts, there need be little concern over investment yields on reinvestment. Therefore, a 7½% statutory valuation interest rate is proposed for new group annuities and single premium individual immediate annuities.

However, in drafting the proposed Standard Valuation Legislation the NAIC task force did not believe that a 7½% statutory valuation interest rate should apply to all immediate annuities issued for an indefinite period after the effective date of the proposed amendment. Therefore, a cut-off date of January 1, 1990 was established, and issues on or after this date under the currently proposed amendment are to be valued at 6%. Presumably if investment yields decline, prudent insurers will reduce their interest assumptions automatically, but this automatic reversion to current standards is intended for those insurers who may not be so quick to act should adverse investment yield experience arise.

#### 6. Linkage of Nonforfeiture Values With Valuation Reserves

For annual premium life insurance nonforfeiture values a 5½% statutory interest rate is proposed as the maximum interest rate that may be used in calculating minimum nonforfeiture benefits. Although historically the statutory valuation interest rate and the statutory nonforfeiture interest rate have always been the same, there is no reason why there should be a direct relationship between the two; in fact, the Society of Actuaries Special Committee on Valuation and Nonforfeiture Laws recommended that they not be tied together and has prepared a special report (See Attachment D) on this subject. If anything, the statutory valuation interest rate should be lower since it is used to determine a conservative measure of reserves to be established for future benefits. On the other hand, the statutory interest rate used in determining minimum nonforfeiture benefits determines an approximate measure of the asset share arising under a policy from past payments of premiums less the cost of protection, insurer expenses and dividends. Therefore, the statutory interest rate specified in the Standard Nonforfeiture Law is logically more closely related to the interest assumption used in determining premiums than is the statutory valuation interest rate. This relationship is strongest for single premium life insurance and is recognized by specifying that the statutory nonforfeiture interest rate for this product shall be 6½% as compared to the recommended statutory reserve interest rate of 5½%.

#### 7. Reasons to Remove Automatic 1986 Reversion From Standard Laws

The Standard Valuation and Nonforfeiture Laws now provide that all statutory interest rates will revert to 3½% on January 1, 1986. As this date approaches, it is apparent that such a change is contrary to all economic trends, and if allowed to become operative, will produce a surplus strain with respect to new business written after that date which will be so abrupt as to severely dislocate or curtail the sale of new life insurance and annuity products. The present provision assumes that interest rates will drop to very low levels in the mid-1980's in direct contradiction to the beliefs of most economists. For this to happen would require a reversal of the federal government's commitment to economic expansion and full employment and a significant reduction in needed capital expenditures by business, none of which are likely.

Even if interest rates were to decline, this would produce capital gains on high yielding investments already contained in insurers' portfolios. These capital gains could be used to strengthen reserves if that were necessary. Another factor to be kept in mind is that in the event interest rates decline, the aggregate yield rate on a life insurer's general account investment portfolio generally lags behind the yield rate on new investments and might even continue to rise for a few years if yields on new investments were somewhat lower than those being obtained currently. If there were a significant long term decline in interest rates, there would be ample time to adjust "new money" statutory valuation rates downward by legislation. Action would be needed in only a few key states; the reduction of statutory valuation interest rates would apply to all insurers doing business in any state enacting such reductions. Finally, the new actuarial opinion which must accompany the NAIC statement requires the actuary to give his opinion not only as to whether reserves meet the minimum statutory standards but also as to whether reserves make good and sufficient provision for all unmatured obligations. Even without such required actuarial certification, many companies did strengthen reserves in the 1940's and early 1950's when interest rates were at low levels.

Considering the many measures which can be taken to ensure adequate reserves in the event of a decline in interest rates and considering the potentially damaging effect on the availability of life insurance and annuities that would be caused by reducing statutory valuation interest rates to 3½% on January 1, 1986, it is proposed that the provisions in the Standard Valuation and Nonforfeiture Laws which make such a reduction automatic be removed.

However, the task force believes it necessary with the present recommendation for a statutory valuation interest rate of 7½% for immediate annuities to place a limit on the date of issue (January 1, 1990) for contracts to which that valuation interest rate is to apply. There should be ample time to provide for increased valuation interest rates for contracts issued after that time. Hopefully, by then some automatic procedure for adjusting statutory interest rates to reflect changing economic conditions may have been devised.

#### 8. Present Statutory Reserve Requirements Prevent Insurers From Competing With the Federal Government to Insure Terminating Pension Plans

Prior to the passage of the Employees Retirement Income Security Act of 1974 (ERISA), terminating pension plans had as an alternative to annuity purchase the dissipation of a wasting trust, with uncertainty running for a generation or more as to whether the uninsured pension fund would be inadequate or excessive. However, ERISA severely restricted the possibility of using a wasting trust and created the Federal Pension Benefit Guaranty Corporation (PBGC) to become an insurance company for terminating pension plans, thus pushing terminating plans toward the insured route. The PBGC has often said that they do not want to preempt private institutions and would prefer to be only the insurer of last resort. Unfortunately, the current annuity reserve requirements for private carriers are so restrictive that the PBGC is now effectively the only insured resort.

Under ERISA, a terminating pension plan values its assets and liabilities according to PBGC rules. Assets are valued, essentially, at market; liabilities are priced at rates which are in line with those of the major carrier; and finally, protected benefits must ultimately be provided the PBGC (and the PBGC can reach up to 30% of the plan sponsor's net worth, in addition to existing plan assets, in order to get its price).

The PBGC will accept termination plans with assets less than liabilities. However, the PBGC would like to require that, when assets at least equal liabilities - the "sufficient plan" - the plan must seek a commercial quotation. However, as noted on page 9 above, under existing reserve requirements competitive pricing for terminated plan business may typically result in a surplus strain to the writing insurer of 60% of the net considerations. Such excessive surplus strains are drying up the commercial alternative to federal insurance of terminating pension plans.

The forced success of the PBGC and the evident incapacity of commercial insurers to offer competitive contracts to terminated plans may lead to a mandate for the PBGC or another federal government agency, unhampered by state reserve requirements, to offer a full range of annuity products for ongoing as well as terminated plans. Clearly, it is essential that minimum reserve requirements be set at appropriate levels to enable private insurers to compete effectively with the federal government in insuring terminated pension plans.

#### 9. Summary and Conclusion

There is an immediate need to recognize current economic realities in the statutory interest rates specified in the Standard Valuation and Nonforfeiture Laws. Failure to do so will continue the requirement of redundant reserves and the resulting artificial surplus strain leading to reduced competition in price or availability of life insurance and annuity products. Another needed revision is further refinement of the structure of statutory valuation interest rates to reflect more accurately the impact of current and future yields on the pricing of various kinds of life insurance and annuity products.

Most economists are in agreement that pressures for an expanding economy, full employment and capital funds to meet the demands for technological change, for pollution control and for energy independence will keep interest rates well above the levels obtained prior to 1974. Investments made by life insurance companies in this financial setting would command rates in the 8% or 9% range for the foreseeable future. If there is a significant decline in interest rates at some future time, there exists ample procedures and opportunities to ensure that reserves are established at levels which would appropriately reflect any change in the pattern of interest rates. Finally, an updating of the valuation laws is needed to enable private insurers to compete effectively with the federal government to avoid a federal takeover of the insurance of terminated pension plans. Therefore, it is proposed that the Standard Valuation and Nonforfeiture Laws be modified as indicated in the enumerated changes proposed in the Introduction. Copies of the current Standard Valuation and Nonforfeiture Laws and suggested amendatory language are given in Attachments A2 and A3.

Illustrative tables are given in Appendix I comparing reserves and nonforfeiture values for various interest assumptions; ages and plans are given for annual premium life insurance policies, for single premium life insurance policies and for immediate life annuity contracts.

APPENDIX I TO ATTACHMENT C

Illustrative Tables Showing the Effect on Reserves and Nonforfeiture Value of the Recommended Changes in Interest Assumptions for Minimum Reserve and Minimum Nonforfeiture Value Standards

These tables show:

A. For Annual Premium Life Insurance Plans

Fourteen tables, each in two parts, are present for selected issue ages and plans. The first part shows Net Level Premium Method and Commissioners' Reserve Valuation Method net premiums and reserves at 3½%,\* 4% and 4½% and the Minimum cash surrender values assuming 3½%,\* 4% and 5½%. The second part shows ratios of values at the higher interest rate to those at the lower rates. The tables are for:

	<u>Age</u>	<u>Table</u>
Whole Life	0	1
	20	2
	35	3
	50	4
	65	5
Life Paid Up at Age 65	20	6
	35	7
	50	8
Endowment at Age 65	20	9
	35	10
	50	11
Term to Age 65	20	12
	35	13
	50	14

B. Single Premium Whole Life Insurance Policies - Table 15

This table shows for quinquennial attained ages 0 to 90 a comparison of minimum reserves and minimum cash values under the present standard laws and under the proposed revisions.

C. Single Premium Immediate Life Annuity Contracts

These tables show the values of single premium immediate life annuities, male vs female, for attained ages over 50, at interest rates of 3½%,\* 6% and 7½% and ratios of the values at the higher interest rates to those at the lower rate for:

- The 1971 Individual Annuity Mortality Table - Table 16
- The 1971 Group Annuity Mortality Table - Table 17

\*3½% values are shown since four states, the District of Columbia and Puerto Rico have not yet enacted the 1972 amendments with respect to annuity reserves.

## ATTACHMENT C - APPENDIX I - TABLE 1

## PART 1

TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

## ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: ORDINARY LIFE                      ISSUE AGE: 0

1958 CURTATE CSO MORTALITY, AGE NEAREST BIRTHDAY

AT END OF POLICY YEAR	FOR MLP RESERVE INTEREST			FOR CRVM RESERVE INTEREST			FOR NFV INTEREST		
	3.5	4.0	4.5	3.5	4.0	4.5	3.5	4.0	5.5
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM		
	4.74	4.14	3.66	4.74	4.14	3.66	5.65	5.13	4.22
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)					
				4.74	4.14	3.66			
	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES		
0							-23.67	-23.34	-23.08
1	-2.19	-2.88	-3.28	0.00	0.00	0.00	-25.92	-26.20	-26.81
2	0.88	-0.37	-1.37	3.06	2.42	1.90	-22.78	-23.71	-25.64
3	4.30	2.40	0.87	6.47	5.19	4.14	-19.28	-20.88	-24.16
4	7.90	5.35	3.27	10.07	8.13	6.53	-15.58	-17.86	-22.53
5	11.70	8.48	5.84	13.86	11.24	9.10	-11.70	-14.66	-20.75
6	15.68	11.79	8.59	17.83	14.54	11.83	-7.62	-11.27	-18.81
7	19.86	15.28	11.51	22.00	18.03	14.74	-3.34	-7.70	-16.72
8	24.23	18.96	14.61	26.36	21.69	17.83	1.13	-3.94	-14.46
9	28.78	22.82	17.87	30.91	25.54	21.09	5.79	0.01	-12.05
10	33.52	26.85	21.31	35.64	29.57	24.52	10.64	4.15	-9.49
11	38.44	31.06	24.91	40.54	33.76	28.10	15.67	8.45	-6.78
12	43.51	35.42	28.66	45.60	38.11	31.84	20.87	12.91	-3.93
13	48.74	39.93	32.55	50.82	42.60	35.72	26.22	17.52	-0.96
14	54.10	44.56	36.56	56.17	47.23	39.72	31.70	22.27	2.12
15	59.59	49.33	40.69	61.64	51.98	43.83	37.32	27.14	5.31
16	65.21	54.22	44.95	67.25	56.86	48.08	43.08	32.15	8.60
17	70.96	59.25	49.33	73.00	61.87	52.44	48.97	37.29	12.00
18	76.85	64.40	53.84	78.87	67.01	56.93	55.00	42.57	15.52
19	82.90	69.71	58.49	84.90	72.30	61.57	61.19	48.00	19.17
20	89.12	75.19	63.31	91.11	77.77	66.37	67.55	53.61	22.97
25	123.28	105.67	90.45	125.19	108.17	93.43	102.52	84.81	44.89
30	163.58	142.44	123.90	165.41	144.83	126.77	143.78	122.43	73.05
35	210.80	186.45	164.79	212.52	188.72	167.53	192.11	167.47	108.93
40	265.18	238.16	213.80	266.78	240.29	216.37	247.78	220.39	153.59

ATTACHMENT C - APPENDIX I - TABLE 1

PART 2

COMPARISONS OF  
TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: ORDINARY LIFE ISSUE AGE: 0

1958 CURTATE CSO MORTALITY, AGE NEAREST BIRTHDAY

J/K = RATIOS OF VALUES CALCULATED AT INTEREST RATE J  
TO THOSE CALCULATED AT INTEREST RATE K

AT END OF POLICY YEAR	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES			
	J/K	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	5.5/3.5	5.5/4.0
	NET ANNUAL PREMIUM	MODIFIED PREMIUM			ADJUSTED PREMIUM			MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)		
	0.8733	0.7716	0.8836	0.8733	0.7716	0.8836	0.9082	0.7467	0.8222	
				0.8733	0.7716	0.8836				
0							0.9858	0.9748	0.9889	
1	1.2759	1.4976	1.1738	0.0000	0.0000	0.5024	1.0108	1.0345	1.0234	
2	-0.4197	-1.5695	3.7396	0.7916	0.6218	0.7855	1.0410	1.1258	1.0814	
3	0.5596	0.2014	0.3599	0.8012	0.6388	0.7973	1.0830	1.2533	1.1572	
4	0.6772	0.4137	0.6109	0.8068	0.6485	0.8038	1.1460	1.4455	1.2614	
5	0.7249	0.4996	0.6892	0.8114	0.6564	0.8090	1.2530	1.7733	1.4153	
6	0.7517	0.5477	0.7286	0.8155	0.6635	0.8136	1.4793	2.4683	1.6686	
7	0.7695	0.5796	0.7532	0.8193	0.6701	0.8179	2.3017	4.9981	2.1714	
8	0.7825	0.6029	0.7704	0.8230	0.6764	0.8219	-3.4906	-12.8295	3.6755	
9	0.7927	0.6210	0.7834	0.8264	0.6823	0.8256	0.0024	-2.0812	#####	
10	0.8010	0.6358	0.7937	0.8297	0.6879	0.8292	0.3894	-0.8912	-2.2885	
11	0.8080	0.6482	0.8021	0.8328	0.6932	0.8324	0.5390	-0.4323	-0.8021	
12	0.8140	0.6587	0.8092	0.8357	0.6982	0.8355	0.6186	-0.1885	-0.3047	
13	0.8192	0.6679	0.8152	0.8384	0.7023	0.8383	0.6684	-0.0366	-0.0548	
14	0.8238	0.6759	0.8204	0.8409	0.7071	0.8409	0.7024	0.0669	0.0952	
15	0.8279	0.6830	0.8250	0.8432	0.7111	0.8433	0.7273	0.1422	0.1955	
16	0.8315	0.6893	0.8290	0.8455	0.7148	0.8455	0.7464	0.1996	0.2675	
17	0.8349	0.6951	0.8326	0.8476	0.7184	0.8476	0.7615	0.2451	0.3219	
18	0.8380	0.7005	0.8359	0.8496	0.7218	0.8496	0.7740	0.2822	0.3646	
19	0.8409	0.7055	0.8390	0.8516	0.7251	0.8515	0.7845	0.3132	0.3993	
20	0.8437	0.7104	0.8420	0.8536	0.7285	0.8535	0.7936	0.3400	0.4285	
25	0.8572	0.7337	0.8559	0.8640	0.7463	0.8637	0.8272	0.4378	0.5293	
30	0.8708	0.7574	0.8698	0.8756	0.7664	0.8753	0.8515	0.5081	0.5967	
35	0.8845	0.7818	0.8839	0.8880	0.7883	0.8877	0.8717	0.5670	0.6505	
40	0.8981	0.8063	0.8977	0.9007	0.8110	0.9005	0.8894	0.6198	0.6969	

## ATTACHMENT C - APPENDIX I - TABLE 2

## PART 1

TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

## ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: ORDINARY LIFE                      ISSUE AGE: 20

1958 CURTATE CSO MORTALITY; AGE NEAREST BIRTHDAY

AT END OF POLICY YEAR	FOR NLP RESERVE INTEREST			FOR CRVM RESERVE INTEREST			FOR NFV INTEREST		
	3.5	4.0	4.5	3.5	4.0	4.5	3.5	4.0	5.5
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM		
	8.51	7.60	6.81	8.81	7.88	7.08	9.62	8.78	6.96
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)					
				1.73	1.72	1.71			
	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES		
0							-26.25	-25.71	-25.25
1	7.03	6.13	5.34	0.00	0.00	0.00	-19.04	-19.43	-20.36
2	14.28	12.47	10.89	7.30	6.38	5.58	-11.60	-12.92	-16.00
3	21.77	19.05	16.67	14.84	13.00	11.39	-3.92	-6.17	-11.42
4	29.50	25.87	22.69	22.63	19.87	17.45	4.02	0.83	-6.61
5	37.50	32.96	28.98	30.69	27.00	23.76	12.23	8.10	-1.54
6	45.78	40.33	35.54	39.02	34.42	30.36	20.73	15.66	3.79
7	54.34	47.99	42.38	47.64	42.12	37.24	29.51	23.51	9.40
8	63.18	55.93	49.52	56.55	50.11	44.41	38.59	31.66	15.30
9	72.32	64.17	56.95	65.75	58.41	51.89	47.96	40.11	21.49
10	81.74	72.72	64.69	75.24	67.00	59.66	57.64	48.88	27.99
11	91.48	81.57	72.74	85.04	75.91	67.76	67.62	57.96	34.82
12	101.52	90.75	81.12	95.16	85.14	76.19	77.93	67.37	41.98
13	111.88	100.26	89.84	105.59	94.71	84.96	88.56	77.13	49.49
14	122.57	110.11	98.91	116.35	104.62	94.08	99.53	87.23	57.36
15	133.58	120.31	108.34	127.45	114.88	103.56	110.84	97.69	65.62
16	144.92	130.84	118.13	138.87	125.48	113.39	122.47	108.49	74.24
17	156.57	141.71	128.26	150.60	136.42	123.58	134.43	119.65	83.24
18	168.53	152.91	138.74	162.64	147.69	134.12	146.70	131.14	92.62
19	180.77	164.42	149.54	174.97	159.27	144.98	159.26	142.94	102.36
20	193.28	176.22	160.66	187.57	171.15	156.16	172.10	155.04	112.44
25	259.64	239.48	220.86	254.40	234.79	216.68	240.20	219.92	168.09
30	331.79	309.39	288.47	327.06	305.14	284.65	314.25	291.64	232.51
35	408.07	384.45	362.13	403.88	380.66	358.70	392.53	368.63	304.70
40	486.53	462.77	440.05	482.89	459.46	437.05	473.05	448.96	383.12

ATTACHMENT C - APPENDIX I - TABLE 2

PART 2

COMPARISONS OF  
TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: ORDINARY LIFE                      ISSUE AGE: 20

1958 CURTATE CSO MORTALITY, AGE NEAREST BIRTHDAY

J/K = RATIOS OF VALUES CALCULATED AT INTEREST RATE J  
TO THOSE CALCULATED AT INTEREST RATE K

AT END OF POLICY YEAR	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES			
	J/K	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	5.5/3.5	5.5/4.0
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM			
	0.8932	0.8006	0.8964	0.8950	0.8038	0.8981	0.9131	0.7233	0.7921	
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)						
				0.9952	0.9904	0.9952				
		RESERVES			RESERVES			VALUES		
0							0.9793	0.9617	0.9820	
1	0.8714	0.7595	0.8716	1.1065	1.2238	1.1060	1.0204	1.0692	1.0479	
2	0.8731	0.7626	0.8733	0.8741	0.7642	0.8743	1.1140	1.3790	1.2379	
3	0.8750	0.7658	0.8752	0.8760	0.7675	0.8762	1.5768	2.9153	1.8489	
4	0.8770	0.7692	0.8771	0.8779	0.7709	0.8781	0.2055	-1.6424	-7.9938	
5	0.8790	0.7727	0.8791	0.8799	0.7744	0.8801	0.6622	-0.1260	-0.1902	
6	0.8810	0.7763	0.8811	0.8820	0.7780	0.8821	0.7555	0.1829	0.2421	
7	0.8831	0.7800	0.8832	0.8841	0.7817	0.8842	0.7967	0.3185	0.3998	
8	0.8853	0.7837	0.8853	0.8862	0.7854	0.8863	0.8205	0.3965	0.4832	
9	0.8874	0.7875	0.8874	0.8883	0.7892	0.8884	0.8364	0.4481	0.5358	
10	0.8896	0.7913	0.8896	0.8905	0.7930	0.8905	0.8480	0.4857	0.5728	
11	0.8917	0.7952	0.8917	0.8926	0.7968	0.8927	0.8571	0.5149	0.6007	
12	0.8939	0.7991	0.8939	0.8948	0.8007	0.8948	0.8645	0.5386	0.6231	
13	0.8961	0.8030	0.8961	0.8970	0.8046	0.8970	0.8709	0.5588	0.6416	
14	0.8984	0.8070	0.8983	0.8992	0.8085	0.8992	0.8764	0.5763	0.6576	
15	0.9006	0.8111	0.9006	0.9014	0.8125	0.9014	0.8814	0.5920	0.6717	
16	0.9028	0.8151	0.9028	0.9036	0.8166	0.9036	0.8859	0.6062	0.6843	
17	0.9051	0.8192	0.9051	0.9059	0.8206	0.9059	0.8900	0.6192	0.6958	
18	0.9073	0.8232	0.9073	0.9081	0.8246	0.9081	0.8939	0.6314	0.7063	
19	0.9095	0.8272	0.9095	0.9103	0.8286	0.9103	0.8975	0.6427	0.7161	
20	0.9117	0.8312	0.9117	0.9124	0.8325	0.9124	0.9009	0.6533	0.7252	
25	0.9223	0.8506	0.9223	0.9229	0.8517	0.9229	0.9156	0.6998	0.7643	
30	0.9325	0.8694	0.9324	0.9330	0.8703	0.9328	0.9281	0.7399	0.7973	
35	0.9421	0.8874	0.9419	0.9425	0.8881	0.9423	0.9391	0.7763	0.8266	
40	0.9512	0.9045	0.9509	0.9515	0.9051	0.9512	0.9491	0.8099	0.8534	

## ATTACHMENT C - APPENDIX I - TABLE 3

## PART 1

TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

## ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: ORDINARY LIFE

ISSUE AGE: 35

1958 CURTATE CSD MORTALITY, AGE NEAREST BIRTHDAY

AT END OF POLICY YEAR	FOR NLP RESERVE INTEREST			FOR CRVM RESERVE INTEREST			FOR NPV INTEREST		
	3.5	4.0	4.5	3.5	4.0	4.5	3.5	4.0	5.5
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM		
	15.03	13.90	12.87	15.68	14.53	13.49	16.54	15.47	12.90
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)					
				2.43	2.41	2.40			
	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES		
0							-30.75	-30.06	-29.44
1	13.08	11.98	10.97	0.00	0.00	0.00	-17.26	-17.72	-18.89
2	26.53	24.33	22.33	13.63	12.51	11.49	-3.40	-4.99	-8.98
3	40.34	37.07	34.09	27.61	25.40	23.37	10.83	8.12	1.34
4	54.46	50.15	46.20	41.93	38.63	35.62	25.39	21.60	12.05
5	68.90	63.57	58.68	56.56	52.21	48.23	40.27	35.42	23.15
6	83.64	77.31	71.49	71.49	66.12	61.19	55.46	49.57	34.63
7	98.67	91.37	84.64	86.72	80.35	74.49	70.95	64.05	46.48
8	113.99	105.75	98.15	102.24	94.91	88.14	86.75	78.87	58.73
9	129.60	120.45	111.99	118.06	109.79	102.14	102.83	94.01	71.36
10	145.49	135.47	126.18	134.16	124.99	116.49	119.21	109.48	84.40
11	161.66	150.80	140.72	150.54	140.51	131.19	135.88	125.27	97.82
12	178.09	166.43	155.58	167.19	156.32	146.21	152.81	141.37	111.64
13	194.76	182.34	170.76	184.08	172.43	161.56	170.00	157.76	125.83
14	211.66	198.52	186.24	201.21	188.80	177.21	187.42	174.43	140.39
15	228.76	214.95	202.01	218.54	205.43	193.16	205.05	191.35	155.30
16	246.06	231.61	218.04	236.06	222.30	209.37	222.88	208.51	170.55
17	263.52	248.48	234.33	253.76	239.37	225.84	240.88	225.89	186.13
18	281.15	265.56	250.87	271.62	256.66	242.56	259.04	243.49	202.04
19	298.91	282.83	267.64	289.62	274.14	259.51	277.36	261.27	218.25
20	316.81	300.27	284.62	307.75	291.79	276.68	295.80	279.24	234.76
25	407.36	389.30	372.01	399.50	381.89	365.05	389.14	370.94	321.06
30	497.20	478.78	460.99	490.53	472.46	455.01	481.74	463.11	411.10
35	582.09	564.34	547.03	576.55	559.05	542.00	569.24	551.24	500.07
40	658.74	642.35	626.25	654.21	638.02	622.10	648.25	631.61	583.52

ATTACHMENT C -- APPENDIX I -- TABLE 3

PART 2

COMPARISONS OF  
TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: ORDINARY LIFE                      ISSUE AGE: 35

1958 CURTATE CSO MORTALITY, AGE NEAREST BIRTHDAY

J/K = RATIOS OF VALUES CALCULATED AT INTEREST RATE J  
TO THOSE CALCULATED AT INTEREST RATE K

AT END OF POLICY YEAR	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES			
	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	5.5/3.5	5.5/4.0	
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM			
	0.9245	0.8562	0.9261	0.9268	0.8604	0.9284	0.9357	0.7802	0.8339	
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)						
				0.9952	0.9904	0.9952				
		RESERVES			RESERVES			VALUES		
0							0.9775	0.9574	0.9794	
1	0.9153	0.8384	0.9160	0.8921	1.0602	1.1885	1.0266	1.0944	1.0661	
2	0.9171	0.8418	0.9178	0.9179	0.8432	0.9186	1.4681	2.6422	1.7998	
3	0.9190	0.8451	0.9196	0.9197	0.8465	0.9204	0.7503	0.1236	0.1647	
4	0.9208	0.8483	0.9213	0.9215	0.8497	0.9221	0.8506	0.4746	0.5580	
5	0.9225	0.8516	0.9231	0.9232	0.8528	0.9238	0.8794	0.5748	0.6536	
6	0.9243	0.8547	0.9248	0.9249	0.8559	0.9254	0.8938	0.6243	0.6985	
7	0.9260	0.8579	0.9264	0.9266	0.8590	0.9271	0.9027	0.6551	0.7257	
8	0.9277	0.8610	0.9281	0.9283	0.8621	0.9287	0.9092	0.6770	0.7446	
9	0.9294	0.8641	0.9298	0.9299	0.8652	0.9304	0.9142	0.6940	0.7591	
10	0.9311	0.8673	0.9315	0.9316	0.8683	0.9320	0.9184	0.7079	0.7709	
11	0.9328	0.8705	0.9331	0.9333	0.8714	0.9337	0.9219	0.7199	0.7809	
12	0.9345	0.8736	0.9348	0.9350	0.8745	0.9353	0.9251	0.7305	0.7897	
13	0.9362	0.8768	0.9365	0.9367	0.8777	0.9370	0.9288	0.7402	0.7976	
14	0.9379	0.8799	0.9381	0.9384	0.8808	0.9386	0.9307	0.7491	0.8048	
15	0.9396	0.8830	0.9398	0.9400	0.8838	0.9402	0.9332	0.7574	0.8116	
16	0.9413	0.8861	0.9414	0.9417	0.8869	0.9419	0.9356	0.7652	0.8180	
17	0.9429	0.8892	0.9431	0.9433	0.8900	0.9435	0.9378	0.7727	0.8240	
18	0.9446	0.8923	0.9447	0.9449	0.8930	0.9451	0.9399	0.7799	0.8298	
19	0.9462	0.8954	0.9463	0.9465	0.8960	0.9466	0.9420	0.7869	0.8353	
20	0.9478	0.8984	0.9479	0.9481	0.8991	0.9482	0.9440	0.7936	0.8407	
25	0.9557	0.9132	0.9556	0.9559	0.9138	0.9559	0.9532	0.8251	0.8655	
30	0.9630	0.9272	0.9628	0.9632	0.9276	0.9631	0.9613	0.8534	0.8877	
35	0.9695	0.9398	0.9693	0.9697	0.9401	0.9695	0.9684	0.8785	0.9072	
40	0.9751	0.9507	0.9749	0.9752	0.9509	0.9751	0.9743	0.9002	0.9239	

## ATTACHMENT C - APPENDIX I - TABLE 4

## PART 1

TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

## ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: ORDINARY LIFE                      ISSUE AGE: 50

1958 CURTATE CSO MORTALITY, AGE NEAREST BIRTHDAY

AT END OF POLICY YEAR	FOR NLP RESERVE INTEREST			FOR CRVM RESERVE INTEREST			FOR NFV INTEREST		
	3.5	4.0	4.5	3.5	4.0	4.5	3.5	4.0	5.5
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM		
	29.53	28.24	27.03	30.98	29.68	28.47	32.11	30.91	27.79
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)					
				8.04	8.00	7.96			
	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES		
0							-40.87	-40.89	-39.36
1	22.43	21.22	20.10	0.00	0.00	0.00	-17.53	-18.02	-19.32
2	45.07	42.72	40.51	23.16	21.96	20.83	6.04	4.34	-0.17
3	67.92	64.47	61.23	46.54	44.19	41.98	29.82	26.97	19.37
4	90.96	86.47	82.24	70.11	66.66	63.42	53.80	49.84	39.29
5	114.16	108.69	103.52	93.84	89.36	85.14	77.95	72.95	59.58
6	137.50	131.10	125.06	117.72	112.26	107.11	102.25	96.27	80.22
7	160.95	153.69	146.81	141.70	135.34	129.31	126.65	119.76	101.17
8	184.47	176.40	168.75	165.76	158.55	151.70	151.13	143.38	122.42
9	208.02	199.21	190.83	189.85	181.85	174.24	175.65	167.11	143.92
10	231.57	222.08	213.04	213.95	205.22	196.90	200.16	190.90	165.64
11	255.08	244.98	235.32	238.00	228.61	219.64	224.64	214.71	187.55
12	278.53	267.86	257.65	261.98	251.98	242.43	249.04	238.51	209.60
13	301.86	290.70	279.99	285.85	275.32	265.23	273.33	262.26	231.77
14	325.05	313.45	302.30	309.57	298.56	288.00	297.46	285.92	254.02
15	348.05	336.07	324.54	333.10	321.67	310.69	321.41	309.45	276.29
16	370.82	358.51	346.65	356.39	344.60	333.25	345.10	332.79	298.54
17	393.28	380.70	368.57	379.36	367.28	355.62	368.48	355.87	320.67
18	415.36	402.57	390.20	401.95	389.62	377.70	391.47	378.62	342.62
19	436.99	424.03	411.48	424.08	411.55	399.41	413.98	400.94	364.29
20	458.13	445.05	432.36	445.70	433.02	420.72	435.98	422.80	385.62
25	557.51	544.43	531.64	547.36	534.55	522.03	539.43	526.17	488.18
30	648.22	636.06	624.08	640.15	628.17	616.37	633.84	621.47	585.51
35	723.59	712.79	702.09	717.25	706.56	695.98	712.29	701.28	668.87
40	789.17	780.03	770.90	784.33	775.26	766.20	780.55	771.21	743.36

ATTACHMENT C - APPENDIX I - TABLE 4

PART 2

COMPARISONS OF  
 TERMINAL RESERVES AND NONFORFEITURE VALUES  
 FOR VARIOUS INTEREST ASSUMPTIONS

ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: ORDINARY LIFE                      ISSUE AGE: 50

1958 CURTATE CSO MORTALITY; AGE NEAREST BIRTHDAY

J/K = RATIOS OF VALUES CALCULATED AT INTEREST RATE J  
 TO THOSE CALCULATED AT INTEREST RATE K

AT END OF POLICY YEAR	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES			
	J/K	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	5.5/3.5	5.5/4.0
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM			
	0.9563	0.9156	0.9574	0.9582	0.9190	0.9592	0.9625	0.8654	0.8991	
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)						
				0.9952	0.9904	0.9952				
			RESERVES			RESERVES			VALUES	
0							0.9809	0.9631	0.9819	
1	0.9464	0.8962	0.9469	1.2786	1.6330	1.2771	1.0277	1.1019	1.0722	
2	0.9478	0.8988	0.9483	0.9480	0.8993	0.9486	0.7184	-0.0289	-0.0402	
3	0.9492	0.9015	0.9497	0.9495	0.9020	0.9500	0.9042	0.6494	0.7182	
4	0.9506	0.9042	0.9511	0.9509	0.9046	0.9514	0.9264	0.7303	0.7882	
5	0.9521	0.9068	0.9525	0.9523	0.9073	0.9527	0.9359	0.7643	0.8167	
6	0.9535	0.9095	0.9539	0.9537	0.9099	0.9541	0.9415	0.7845	0.8333	
7	0.9549	0.9122	0.9552	0.9551	0.9126	0.9555	0.9456	0.7988	0.8448	
8	0.9563	0.9148	0.9566	0.9565	0.9152	0.9568	0.9487	0.8100	0.8538	
9	0.9577	0.9174	0.9579	0.9579	0.9178	0.9582	0.9514	0.8194	0.8612	
10	0.9590	0.9200	0.9593	0.9592	0.9203	0.9595	0.9537	0.8275	0.8677	
11	0.9604	0.9225	0.9606	0.9605	0.9229	0.9608	0.9558	0.8349	0.8735	
12	0.9617	0.9251	0.9619	0.9619	0.9254	0.9621	0.9577	0.8417	0.8788	
13	0.9630	0.9276	0.9632	0.9632	0.9279	0.9634	0.9595	0.8488	0.8838	
14	0.9643	0.9300	0.9645	0.9644	0.9303	0.9646	0.9612	0.8539	0.8884	
15	0.9656	0.9324	0.9657	0.9657	0.9327	0.9659	0.9628	0.8596	0.8928	
16	0.9668	0.9348	0.9669	0.9669	0.9351	0.9671	0.9643	0.8651	0.8971	
17	0.9680	0.9372	0.9681	0.9681	0.9374	0.9683	0.9658	0.8703	0.9011	
18	0.9692	0.9394	0.9693	0.9693	0.9397	0.9694	0.9672	0.8752	0.9049	
19	0.9703	0.9416	0.9704	0.9705	0.9418	0.9705	0.9685	0.8800	0.9086	
20	0.9714	0.9437	0.9715	0.9715	0.9439	0.9716	0.9698	0.8845	0.9121	
25	0.9765	0.9536	0.9765	0.9766	0.9537	0.9766	0.9754	0.9050	0.9278	
30	0.9812	0.9628	0.9812	0.9813	0.9628	0.9812	0.9805	0.9237	0.9421	
35	0.9851	0.9703	0.9850	0.9851	0.9703	0.9850	0.9845	0.9390	0.9538	
40	0.9884	0.9769	0.9883	0.9884	0.9769	0.9883	0.9880	0.9524	0.9639	

## ATTACHMENT C - APPENDIX I - TABLE 5

## PART 1

TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

## ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: ORDINARY LIFE                      ISSUE AGE: 65

1958 CURTATE CSO MORTALITY; AGE NEAREST BIRTHDAY

AT END OF POLICY YEAR	FOR NLP RESERVE INTEREST			FOR CRVM RESERVE INTEREST			FOR NFV INTEREST		
	3.5	4.0	4.5	3.5	4.0	4.5	3.5	4.0	5.5
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM		
	63.34	62.00	60.71	66.86	65.51	64.22	67.81	66.62	63.38
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)					
				30.68	30.53	30.38			
	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES		
0							-46.00	-46.00	-46.00
1	34.92	33.80	32.73	0.00	0.00	0.00	-9.48	-10.64	-13.85
2	69.37	67.23	65.17	35.70	34.59	33.54	26.56	24.32	18.15
3	103.24	100.16	97.21	70.80	68.68	66.66	61.99	58.77	49.87
4	136.42	132.49	128.71	105.17	102.14	99.23	96.69	92.58	81.19
5	168.84	164.14	159.62	138.77	134.90	131.18	130.61	125.69	112.02
6	200.50	195.11	189.91	171.58	166.95	162.50	163.73	158.09	142.35
7	231.46	225.45	219.64	203.66	198.35	193.24	196.11	189.82	172.22
8	261.83	255.27	248.92	235.12	229.21	223.50	227.87	221.01	201.74
9	291.75	284.71	277.89	266.12	259.68	253.45	259.17	251.80	231.07
10	321.28	313.83	306.60	296.73	289.83	283.13	290.06	282.27	260.25
11	350.43	342.63	335.05	326.93	319.63	312.55	320.55	312.39	289.29
12	379.09	371.01	363.15	356.62	349.00	341.60	350.52	342.08	318.07
13	407.10	398.80	390.72	385.65	377.77	370.10	379.83	371.15	346.43
14	434.26	425.80	417.54	413.79	405.71	397.83	408.24	399.39	374.10
15	460.42	451.84	443.46	440.90	432.66	424.62	435.60	426.62	400.93
16	485.51	476.86	468.39	466.89	458.55	450.40	461.84	452.79	426.81
17	509.52	500.83	492.32	491.77	483.37	475.14	486.96	477.87	451.71
18	532.53	523.84	515.31	515.61	507.18	498.91	511.02	501.93	475.70
19	554.65	545.99	537.48	538.54	530.11	521.83	534.17	525.10	498.89
20	576.02	567.41	558.95	560.68	552.28	544.02	556.52	547.51	521.40
25	676.62	668.68	660.83	664.92	657.09	649.35	661.74	653.44	629.07
30	783.65	777.32	771.01	775.82	769.53	763.26	773.69	767.07	747.36
35	723.59	712.79	702.09	717.25	706.56	695.98	712.29	701.28	668.87
40	789.17	780.03	770.90	784.33	775.26	766.20	780.55	771.21	743.36

ATTACHMENT C - APPENDIX I - TABLE 5

PART 2

COMPARISONS OF  
TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: ORDINARY LIFE ISSUE AGE: 65

1958 CURTATE CSO MORTALITY, AGE NEAREST BIRTHDAY

J/K = RATIOS OF VALUES CALCULATED AT INTEREST RATE J  
TO THOSE CALCULATED AT INTEREST RATE K

AT END OF POLICY YEAR	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES			
	J/K	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	5.5/3.5	5.5/4.0
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM			
	0.9788	0.9585	0.9793	0.9799	0.9606	0.9803	0.9824	0.9347	0.9514	
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)						
				0.9952	0.9904	0.9952				
	RESERVES			RESERVES			VALUES			
0							1.0000	1.0000	1.0000	
1	0.9680	0.9375	0.9684	0.0000	0.0000	0.0000	1.1232	1.4616	1.3012	
2	0.9691	0.9396	0.9695	0.9691	0.9395	0.9695	0.9157	0.6833	0.7462	
3	0.9702	0.9416	0.9705	0.9702	0.9415	0.9705	0.9481	0.8045	0.8486	
4	0.9712	0.9435	0.9715	0.9712	0.9435	0.9715	0.9575	0.8396	0.8769	
5	0.9722	0.9454	0.9724	0.9721	0.9453	0.9724	0.9624	0.8577	0.8912	
6	0.9731	0.9472	0.9733	0.9730	0.9471	0.9733	0.9655	0.8694	0.9004	
7	0.9740	0.9489	0.9742	0.9740	0.9488	0.9742	0.9679	0.8782	0.9073	
8	0.9749	0.9507	0.9751	0.9749	0.9506	0.9751	0.9699	0.8853	0.9128	
9	0.9759	0.9525	0.9760	0.9758	0.9524	0.9760	0.9716	0.8915	0.9176	
10	0.9768	0.9543	0.9770	0.9767	0.9542	0.9769	0.9731	0.8972	0.9220	
11	0.9777	0.9561	0.9779	0.9777	0.9560	0.9778	0.9746	0.9025	0.9261	
12	0.9787	0.9580	0.9788	0.9786	0.9579	0.9788	0.9759	0.9074	0.9298	
13	0.9796	0.9598	0.9797	0.9796	0.9597	0.9797	0.9772	0.9121	0.9334	
14	0.9805	0.9615	0.9806	0.9805	0.9614	0.9806	0.9783	0.9164	0.9367	
15	0.9814	0.9632	0.9814	0.9813	0.9631	0.9814	0.9794	0.9204	0.9398	
16	0.9822	0.9647	0.9822	0.9821	0.9647	0.9822	0.9804	0.9241	0.9426	
17	0.9830	0.9662	0.9830	0.9829	0.9662	0.9830	0.9813	0.9276	0.9453	
18	0.9837	0.9677	0.9837	0.9836	0.9676	0.9837	0.9822	0.9309	0.9477	
19	0.9844	0.9690	0.9844	0.9843	0.9690	0.9844	0.9830	0.9340	0.9501	
20	0.9851	0.9704	0.9851	0.9850	0.9703	0.9850	0.9838	0.9369	0.9523	
25	0.9883	0.9767	0.9883	0.9882	0.9766	0.9882	0.9875	0.9506	0.9627	
30	0.9919	0.9839	0.9919	0.9919	0.9838	0.9919	0.9914	0.9660	0.9743	
35	0.9851	0.9703	0.9850	0.9851	0.9703	0.9850	0.9845	0.9390	0.9538	
40	0.9884	0.9769	0.9883	0.9884	0.9769	0.9883	0.9880	0.9524	0.9639	

## ATTACHMENT C - APPENDIX I - TABLE 6

## PART 1

TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: LIFE PAID AT 65      ISSUE AGE: 20

1958 CURTATE CSO MORTALITY, AGE NEAREST BIRTHDAY

AT END OF POLICY YEAR	FOR NLP RESERVE INTEREST			FOR CRVM RESERVE INTEREST			FOR NFV INTEREST		
	3.5	4.0	4.5	3.5	4.0	4.5	3.5	4.0	5.5
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM		
	9.10	8.04	7.15	9.45	8.37	7.45	10.30	9.31	7.20
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)					
				1.73	1.72	1.71			
	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES		
0							-26.53	-25.92	-25.41
1	7.64	6.59	5.69	0.00	0.00	0.00	-18.61	-19.10	-20.20
2	15.53	13.41	11.60	7.97	6.89	5.96	-10.45	-12.03	-15.57
3	23.68	20.49	17.77	16.20	14.03	12.17	-2.02	-4.70	-10.71
4	32.10	27.84	24.19	24.71	21.45	18.65	6.70	2.90	-5.61
5	40.81	35.48	30.89	33.51	29.15	25.41	15.72	10.81	-0.23
6	49.83	43.42	37.90	42.62	37.17	32.46	25.05	19.03	5.44
7	59.15	51.66	45.20	52.03	45.48	39.82	34.70	27.57	11.40
8	68.79	60.23	52.81	61.77	54.13	47.50	44.68	36.43	17.67
9	78.75	69.11	60.75	71.83	63.09	55.50	54.99	45.63	24.25
10	89.03	78.33	69.02	82.22	72.39	63.84	65.63	55.17	31.17
11	99.65	87.88	77.63	92.95	82.03	72.51	76.63	65.07	38.43
12	110.61	97.79	86.59	104.02	92.03	81.55	87.98	75.33	46.06
13	121.93	108.06	95.92	115.45	102.39	90.95	99.69	85.97	54.06
14	133.61	118.71	105.62	127.25	113.14	100.74	111.79	96.99	62.45
15	145.65	129.73	115.72	139.43	124.26	110.92	124.26	108.41	71.26
16	158.06	141.13	126.21	151.96	135.77	121.49	137.11	120.22	80.47
17	170.82	152.91	137.07	164.86	147.65	132.45	150.33	132.42	90.09
18	183.94	165.05	148.33	178.11	159.91	143.79	163.91	145.00	100.12
19	197.38	177.55	159.94	191.69	172.52	155.50	177.84	157.95	110.55
20	211.15	190.38	171.91	205.60	185.48	167.57	192.10	171.25	121.37
25	284.64	259.61	237.11	279.89	255.36	233.32	268.30	243.06	181.46
30	365.82	337.24	311.33	361.97	333.77	308.21	352.59	323.72	252.02
35	453.99	422.68	394.06	451.18	420.12	391.74	444.34	412.72	333.00
40	549.01	515.73	485.12	547.44	514.29	483.80	543.63	510.12	424.65

ATTACHMENT C - APPENDIX I - TABLE 6

PART 2

COMPARISONS OF  
TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: LIFE PAID AT 65                      ISSUE AGE: 20

1958 CURTATE CSO MORTALITY; AGE NEAREST BIRTHDAY

J/K = RATIOS OF VALUES CALCULATED AT INTEREST RATE J  
TO THOSE CALCULATED AT INTEREST RATE K

AT END OF POLICY YEAR	NET LEVEL PREMIUM RESERVES			CRYM RESERVES			CASH SURRENDER VALUES			
	J/K	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	5.5/3.5	5.5/4.0
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM			
	0.8838	0.7851	0.8883	0.8854	0.7878	0.8897	0.9834	0.6989	0.7736	
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)						
				0.9952	0.9984	0.9952				
	RESERVES			RESERVES			VALUES			
0							0.9771	0.9578	0.9803	
1	0.8618	0.7440	0.8633	1.1065	0.8000	0.8000	1.0261	1.0854	1.0578	
2	0.8636	0.7470	0.8651	0.8643	0.7483	0.8658	1.1516	1.4904	1.2941	
3	0.8654	0.7502	0.8669	0.8661	0.7515	0.8676	2.3338	5.3151	2.2774	
4	0.8673	0.7535	0.8688	0.8681	0.7548	0.8695	0.4333	-0.8367	-1.9309	
5	0.8693	0.7569	0.8707	0.8700	0.7582	0.8715	0.6878	-0.0145	-0.0211	
6	0.8714	0.7605	0.8728	0.8721	0.7618	0.8735	0.7597	0.2171	0.2857	
7	0.8734	0.7641	0.8748	0.8741	0.7654	0.8756	0.7944	0.3284	0.4134	
8	0.8755	0.7678	0.8769	0.8762	0.7690	0.8776	0.8154	0.3954	0.4849	
9	0.8777	0.7715	0.8790	0.8783	0.7727	0.8797	0.8299	0.4411	0.5315	
10	0.8798	0.7752	0.8811	0.8804	0.7764	0.8818	0.8406	0.4749	0.5649	
11	0.8819	0.7790	0.8833	0.8826	0.7802	0.8840	0.8492	0.5016	0.5907	
12	0.8841	0.7828	0.8854	0.8847	0.7839	0.8861	0.8562	0.5235	0.6114	
13	0.8863	0.7867	0.8876	0.8869	0.7878	0.8883	0.8623	0.5422	0.6288	
14	0.8885	0.7906	0.8898	0.8891	0.7916	0.8904	0.8676	0.5587	0.6439	
15	0.8907	0.7945	0.8920	0.8913	0.7956	0.8926	0.8724	0.5734	0.6573	
16	0.8929	0.7985	0.8942	0.8934	0.7995	0.8948	0.8768	0.5869	0.6693	
17	0.8951	0.8024	0.8964	0.8956	0.8034	0.8970	0.8809	0.5993	0.6803	
18	0.8973	0.8064	0.8987	0.8978	0.8073	0.8992	0.8846	0.6108	0.6905	
19	0.8995	0.8103	0.9008	0.9000	0.8112	0.9013	0.8881	0.6216	0.6999	
20	0.9017	0.8142	0.9030	0.9021	0.8150	0.9035	0.8915	0.6318	0.7087	
25	0.9120	0.8330	0.9133	0.9124	0.8336	0.9137	0.9059	0.6763	0.7466	
30	0.9219	0.8510	0.9232	0.9221	0.8515	0.9234	0.9181	0.7148	0.7785	
35	0.9310	0.8680	0.9323	0.9312	0.8683	0.9324	0.9288	0.7494	0.8068	
40	0.9394	0.8836	0.9407	0.9394	0.8837	0.9407	0.9384	0.7811	0.8325	

## ATTACHMENT C - APPENDIX I - TABLE 7

## PART 1

TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

## ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: LIFE PAID AT 65      ISSUE AGE: 35

1958 CURTATE CSO MORTALITY; AGE NEAREST BIRTHDAY

AT END OF POLICY YEAR	FOR NLP RESERVE INTEREST			FOR CRVM RESERVE INTEREST			FOR NFV INTEREST		
	3.5	4.0	4.5	3.5	4.0	4.5	3.5	4.0	5.5
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM		
	17.28	15.73	14.37	18.16	16.57	15.17	19.06	17.57	14.11
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)					
				2.43	2.41	2.40			
	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES		
0							-31.76	-30.89	-30.13
1	15.41	13.89	12.54	0.00	0.00	0.00	-15.69	-16.41	-18.13
2	31.28	28.24	25.55	16.20	14.63	13.25	0.85	-1.45	-6.90
3	47.60	43.06	39.03	32.86	29.74	26.97	17.87	14.00	4.82
4	64.33	58.31	52.96	49.95	45.29	41.16	35.32	29.91	17.01
5	81.48	73.99	67.33	67.47	61.29	55.79	53.21	46.28	29.68
6	99.04	90.10	82.14	85.40	77.72	70.88	71.53	63.09	42.82
7	117.00	106.64	97.40	103.75	94.59	86.41	90.27	80.35	56.44
8	135.38	123.62	113.10	122.52	111.91	102.41	109.44	98.07	70.55
9	154.17	141.03	129.27	141.73	129.68	118.89	129.06	116.26	85.17
10	173.38	158.90	145.90	161.36	147.91	135.84	149.12	134.92	100.32
11	193.02	177.22	163.01	181.43	166.60	153.27	169.63	154.06	115.99
12	213.07	195.98	180.59	201.93	185.75	171.19	190.58	173.67	132.19
13	233.54	215.19	198.64	222.85	205.37	189.60	211.97	193.76	148.94
14	254.42	234.85	217.16	244.20	225.44	208.48	233.79	214.31	166.22
15	275.70	254.94	236.14	265.97	245.96	227.85	256.05	235.34	184.05
16	297.39	275.47	255.60	288.15	266.93	247.70	278.75	256.84	202.42
17	319.49	296.45	275.52	310.76	288.36	268.03	301.87	278.81	221.34
18	342.00	317.88	295.93	333.80	310.27	288.86	325.45	301.27	240.84
19	364.94	339.76	316.82	357.28	332.65	310.20	349.49	324.23	260.92
20	388.32	362.13	338.23	381.23	355.52	332.07	374.00	347.71	281.61
25	512.40	481.61	453.35	508.44	477.89	449.84	504.42	473.49	394.82
30	651.94	617.14	585.04	651.94	617.14	585.04	651.94	617.14	527.94
35	710.71	679.99	651.27	710.71	679.99	651.27	710.71	679.99	599.25
40	763.77	737.29	712.27	763.77	737.29	712.27	763.77	737.29	666.15

ATTACHMENT C - APPENDIX I - TABLE 7

PART 2

COMPARISONS OF  
 TERMINAL RESERVES AND NONFORFEITURE VALUES  
 FOR VARIOUS INTEREST ASSUMPTIONS

ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: LIFE PAID AT 65                      ISSUE AGE: 35

1958 CURTATE CSO MORTALITY, AGE NEAREST BIRTHDAY

J/K = RATIOS OF VALUES CALCULATED AT INTEREST RATE J  
 TO THOSE CALCULATED AT INTEREST RATE K

AT END OF POLICY YEAR	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES			
	J/K	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	5.5/3.5	5.5/4.0
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM			
	0.9105	0.8318	0.9135	0.9124	0.8352	0.9154	0.9214	0.7401	0.8032	
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)						
				0.9952	0.9904	0.9952				
		RESERVES			RESERVES			VALUES		
0							0.9728	0.9487	0.9753	
1	0.9010	0.8137	0.9031	0.2974	0.7068	2.3769	1.0461	1.1554	1.1044	
2	0.9028	0.8169	0.9048	0.9032	0.8177	0.9053	-1.6918	-8.0693	4.7697	
3	0.9046	0.8201	0.9066	0.9050	0.8208	0.9070	0.7838	0.2699	0.3444	
4	0.9064	0.8233	0.9083	0.9067	0.8239	0.9087	0.8469	0.4817	0.5688	
5	0.9081	0.8264	0.9100	0.9084	0.8269	0.9103	0.8697	0.5578	0.6414	
6	0.9098	0.8294	0.9117	0.9100	0.8299	0.9120	0.8820	0.5987	0.6787	
7	0.9115	0.8324	0.9133	0.9117	0.8329	0.9136	0.8901	0.6252	0.7024	
8	0.9131	0.8355	0.9149	0.9133	0.8359	0.9152	0.8961	0.6446	0.7194	
9	0.9148	0.8385	0.9166	0.9150	0.8388	0.9168	0.9008	0.6599	0.7326	
10	0.9165	0.8415	0.9182	0.9166	0.8418	0.9184	0.9047	0.6727	0.7435	
11	0.9181	0.8445	0.9198	0.9183	0.8448	0.9200	0.9082	0.6838	0.7529	
12	0.9198	0.8475	0.9215	0.9199	0.8478	0.9216	0.9113	0.6936	0.7612	
13	0.9214	0.8505	0.9231	0.9215	0.8508	0.9232	0.9141	0.7026	0.7687	
14	0.9231	0.8535	0.9247	0.9232	0.8537	0.9248	0.9167	0.7110	0.7756	
15	0.9247	0.8565	0.9263	0.9248	0.8567	0.9264	0.9191	0.7188	0.7820	
16	0.9263	0.8595	0.9278	0.9264	0.8596	0.9279	0.9214	0.7262	0.7881	
17	0.9279	0.8624	0.9294	0.9279	0.8625	0.9295	0.9236	0.7332	0.7939	
18	0.9295	0.8653	0.9310	0.9295	0.8654	0.9310	0.9257	0.7400	0.7994	
19	0.9310	0.8681	0.9325	0.9310	0.8682	0.9325	0.9277	0.7466	0.8047	
20	0.9325	0.8710	0.9340	0.9326	0.8711	0.9340	0.9297	0.7530	0.8099	
25	0.9399	0.8847	0.9413	0.9399	0.8847	0.9413	0.9387	0.7827	0.8338	
30	0.9466	0.8974	0.9480	0.9466	0.8974	0.9480	0.9466	0.8098	0.8555	
35	0.9568	0.9164	0.9578	0.9568	0.9164	0.9578	0.9568	0.8432	0.8813	
40	0.9653	0.9326	0.9661	0.9653	0.9326	0.9661	0.9653	0.8722	0.9035	

## ATTACHMENT C - APPENDIX I - TABLE 8

## PART 1

TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

## ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: LIFE PAID AT 65      ISSUE AGE: 50

1958 CURTATE CSO MORTALITY, AGE NEAREST BIRTHDAY

AT END OF POLICY YEAR	FOR NLP RESERVE INTEREST			FOR CRVM RESERVE INTEREST			FOR NFV INTEREST		
	3.5	4.0	4.5	3.5	4.0	4.5	3.5	4.0	5.5
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM		
	42.30	39.55	37.08	45.02	42.16	39.57	46.30	43.64	37.06
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)					
				15.03	14.26	13.58			
	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES		
0							-44.03	-43.73	-43.45
1	35.76	33.09	30.68	7.29	6.57	5.92	-6.02	-8.48	-13.40
2	72.34	67.05	62.26	45.45	41.95	38.79	32.87	27.70	15.99
3	109.79	101.92	94.79	84.52	78.29	72.65	72.70	64.88	46.47
4	148.13	137.75	128.31	124.55	115.64	107.56	113.51	103.10	78.08
5	187.43	174.57	162.87	165.57	154.04	143.56	155.35	142.40	110.89
6	227.73	212.45	198.52	207.67	193.57	180.73	198.28	182.86	144.97
7	269.10	251.44	235.33	250.89	234.27	219.12	242.37	224.53	180.39
8	311.60	291.63	273.37	295.32	276.24	258.82	287.70	267.52	217.24
9	355.33	333.09	312.74	341.05	319.57	299.92	334.37	311.90	255.63
10	400.40	375.95	353.54	388.21	364.39	342.55	382.51	357.83	295.69
11	446.95	420.33	395.90	436.95	410.82	386.85	432.27	405.43	337.58
12	495.14	466.42	440.01	487.44	459.07	433.00	483.84	454.91	381.48
13	545.20	514.40	486.06	539.91	509.36	481.23	537.44	506.49	427.65
14	597.36	564.54	534.30	594.64	561.94	531.80	593.37	560.46	476.35
15	651.94	617.14	585.04	651.94	617.14	585.04	651.94	617.14	527.94
16	664.10	630.08	598.62	664.10	630.08	598.62	664.10	630.08	542.44
17	676.09	642.88	612.08	676.09	642.88	612.08	676.09	642.88	556.88
18	687.88	655.49	625.38	687.88	655.49	625.38	687.88	655.49	571.20
19	699.42	667.87	638.45	699.42	667.87	638.45	699.42	667.87	585.33
20	710.71	679.99	651.27	710.71	679.99	651.27	710.71	679.99	599.25
25	763.77	737.29	712.27	763.77	737.29	712.27	763.77	737.29	666.15
30	812.19	790.13	769.06	812.19	790.13	769.06	812.19	790.13	729.63
35	852.43	834.38	816.98	852.43	834.38	816.98	852.43	834.38	784.01
40	887.44	873.15	859.26	887.44	873.15	859.26	887.44	873.15	832.60

ATTACHMENT C - APPENDIX I - TABLE 8

PART 2

COMPARISONS OF  
TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: LIFE PAID AT 65      ISSUE AGE: 50

1958 CURTATE CSO MORTALITY, AGE NEAREST BIRTHDAY

J/K = RATIOS OF VALUES CALCULATED AT INTEREST RATE J  
TO THOSE CALCULATED AT INTEREST RATE K

AT END OF POLICY YEAR	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES			
	J/K	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	5.5/3.5	5.5/4.0
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM			
	0.9350	0.8765	0.9374	0.9364	0.8790	0.9387	0.9426	0.8004	0.8492	
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)						
				0.9490	0.9039	0.9524				
	RESERVES			RESERVES			VALUES			
0							0.9932	0.9868	0.9936	
1	0.9254	0.8580	0.9271	0.9003	0.8120	0.9020	1.4084	2.2255	1.5801	
2	0.9269	0.8607	0.9286	0.9229	0.8534	0.9247	0.8428	0.4864	0.5772	
3	0.9284	0.8634	0.9300	0.9263	0.8596	0.9280	0.8924	0.6391	0.7162	
4	0.9299	0.8662	0.9315	0.9285	0.8636	0.9301	0.9082	0.6879	0.7573	
5	0.9314	0.8689	0.9330	0.9304	0.8671	0.9320	0.9166	0.7138	0.7787	
6	0.9329	0.8717	0.9344	0.9321	0.8703	0.9337	0.9222	0.7311	0.7928	
7	0.9344	0.8745	0.9359	0.9338	0.8734	0.9353	0.9264	0.7443	0.8034	
8	0.9359	0.8773	0.9374	0.9354	0.8764	0.9369	0.9298	0.7551	0.8121	
9	0.9374	0.8801	0.9389	0.9370	0.8794	0.9385	0.9328	0.7645	0.8196	
10	0.9389	0.8830	0.9404	0.9386	0.8824	0.9401	0.9355	0.7730	0.8264	
11	0.9405	0.8858	0.9419	0.9402	0.8853	0.9416	0.9379	0.7809	0.8326	
12	0.9420	0.8886	0.9434	0.9418	0.8883	0.9432	0.9402	0.7885	0.8386	
13	0.9435	0.8915	0.9449	0.9434	0.8913	0.9448	0.9424	0.7957	0.8443	
14	0.9451	0.8944	0.9464	0.9450	0.8943	0.9464	0.9445	0.8028	0.8499	
15	0.9466	0.8974	0.9480	0.9466	0.8974	0.9480	0.9466	0.8098	0.8555	
16	0.9488	0.9014	0.9501	0.9488	0.9014	0.9501	0.9488	0.8168	0.8609	
17	0.9509	0.9053	0.9521	0.9509	0.9053	0.9521	0.9509	0.8237	0.8662	
18	0.9529	0.9091	0.9541	0.9529	0.9091	0.9541	0.9529	0.8304	0.8714	
19	0.9549	0.9128	0.9560	0.9549	0.9128	0.9560	0.9549	0.8369	0.8764	
20	0.9568	0.9164	0.9578	0.9568	0.9164	0.9578	0.9568	0.8432	0.8813	
25	0.9653	0.9326	0.9661	0.9653	0.9326	0.9661	0.9653	0.8722	0.9035	
30	0.9728	0.9469	0.9733	0.9728	0.9469	0.9733	0.9728	0.8983	0.9234	
35	0.9788	0.9584	0.9791	0.9788	0.9584	0.9791	0.9788	0.9197	0.9396	
40	0.9839	0.9682	0.9841	0.9839	0.9682	0.9841	0.9839	0.9382	0.9536	

## ATTACHMENT C - APPENDIX I - TABLE 9

## PART 1

TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

## ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: ENDOWMENT AT 65      ISSUE AGE: 20

1958 CURTATE CSO MORTALITY; AGE NEAREST BIRTHDAY

AT END OF POLICY YEAR	FOR NLP RESERVE INTEREST			FOR CRVM RESERVE INTEREST			FOR NFV INTEREST		
	3.5	4.0	4.5	3.5	4.0	4.5	3.5	4.0	5.5
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM		
	11.46	10.29	9.25	11.92	10.73	9.67	12.71	11.60	9.03
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)					
				1.73	1.72	1.71			
	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES		
0							-27.49	-26.84	-26.27
1	10.09	8.93	7.89	0.00	0.00	0.00	-17.12	-17.67	-19.05
2	20.51	18.20	16.12	10.53	9.35	8.29	-6.41	-8.15	-12.42
3	31.29	27.82	24.70	21.42	19.06	16.94	4.66	1.73	-5.46
4	42.44	37.82	33.66	32.68	29.15	25.97	16.12	12.00	1.08
5	53.98	48.22	43.01	44.33	39.64	35.40	27.97	22.68	9.61
6	65.93	59.04	52.79	56.40	50.56	45.25	40.25	33.79	17.77
7	78.29	70.28	63.00	68.89	61.90	55.54	52.95	45.33	26.36
8	91.08	81.97	73.66	81.82	73.70	66.29	66.10	57.33	35.41
9	104.31	94.12	84.79	95.18	85.95	77.50	79.69	69.81	44.94
10	117.99	106.73	96.39	109.00	98.68	89.20	93.75	82.76	54.97
11	132.13	119.83	108.50	123.29	111.90	101.41	108.28	96.21	65.52
12	146.75	133.43	121.13	138.05	125.62	114.14	123.30	110.17	76.63
13	161.86	147.55	134.30	153.32	139.87	127.41	138.83	124.67	88.31
14	177.48	162.21	148.04	169.10	154.66	141.26	154.87	139.73	100.61
15	193.62	177.43	162.36	185.40	170.02	155.70	171.45	155.36	113.53
16	210.28	193.21	177.27	202.23	185.94	170.73	188.57	171.56	127.11
17	227.46	209.56	192.79	219.58	202.43	186.36	206.22	188.34	141.35
18	245.17	226.48	208.92	237.47	219.51	202.62	224.42	205.72	156.29
19	263.39	243.97	225.66	255.88	237.15	219.50	243.15	223.68	171.91
20	282.14	262.03	243.02	274.82	255.38	237.00	262.41	242.23	188.25
25	384.02	361.47	339.82	377.74	355.72	334.57	367.09	344.34	281.62
30	501.08	478.17	455.82	495.99	473.47	451.49	487.36	464.16	398.18
35	636.46	616.09	595.89	632.76	612.63	592.67	626.47	605.79	545.01
40	797.32	783.72	769.99	795.25	781.77	768.16	791.75	777.92	735.83

ATTACHMENT C - APPENDIX I - TABLE 9

PART 2

COMPARISONS OF  
TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: ENDOWMENT AT 65 ISSUE AGE: 20

1958 CURTATE CSO MORTALITY, AGE NEAREST BIRTHDAY

J/K = RATIOS OF VALUES CALCULATED AT INTEREST RATE J  
TO THOSE CALCULATED AT INTEREST RATE K

AT END OF POLICY YEAR	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES			
	J/K	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	5.5/3.5	5.5/4.0
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM			
	0.8981	0.8074	0.8990	0.9002	0.8111	0.9010	0.9131	0.7104	0.7780	
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)						
				0.9952	0.9904	0.9952				
		RESERVES			RESERVES			VALUES		
0							0.9763	0.9557	0.9788	
1	0.8852	0.7824	0.8839	0.8852	0.8000	0.8000	1.0319	1.1125	1.0781	
2	0.8871	0.7858	0.8858	0.8880	0.7874	0.8867	1.2715	1.9379	1.5241	
3	0.8891	0.7894	0.8878	0.8900	0.7910	0.8887	0.3712	-1.1701	-3.1524	
4	0.8912	0.7931	0.8899	0.8921	0.7946	0.8908	0.7445	0.1166	0.1566	
5	0.8933	0.7969	0.8920	0.8942	0.7984	0.8929	0.8107	0.3436	0.4239	
6	0.8955	0.8007	0.8942	0.8953	0.8023	0.8951	0.8394	0.4414	0.5259	
7	0.8977	0.8047	0.8964	0.8985	0.8062	0.8972	0.8561	0.4978	0.5815	
8	0.9000	0.8087	0.8986	0.9008	0.8102	0.8995	0.8674	0.5357	0.6176	
9	0.9023	0.8128	0.9009	0.9030	0.8143	0.9017	0.8759	0.5639	0.6438	
10	0.9045	0.8170	0.9032	0.9053	0.8184	0.9040	0.8828	0.5864	0.6642	
11	0.9069	0.8211	0.9055	0.9076	0.8225	0.9063	0.8885	0.6052	0.6811	
12	0.9092	0.8254	0.9078	0.9099	0.8267	0.9086	0.8935	0.6215	0.6955	
13	0.9116	0.8297	0.9102	0.9123	0.8310	0.9109	0.8981	0.6361	0.7084	
14	0.9140	0.8341	0.9126	0.9146	0.8354	0.9133	0.9022	0.6496	0.7200	
15	0.9164	0.8386	0.9150	0.9170	0.8398	0.9157	0.9061	0.6622	0.7308	
16	0.9188	0.8430	0.9175	0.9195	0.8442	0.9182	0.9098	0.6741	0.7409	
17	0.9213	0.8476	0.9200	0.9219	0.8487	0.9206	0.9133	0.6854	0.7505	
18	0.9238	0.8521	0.9225	0.9243	0.8532	0.9231	0.9167	0.6964	0.7597	
19	0.9263	0.8567	0.9250	0.9268	0.8573	0.9255	0.9199	0.7070	0.7686	
20	0.9287	0.8614	0.9275	0.9293	0.8624	0.9280	0.9231	0.7174	0.7772	
25	0.9413	0.8849	0.9401	0.9417	0.8857	0.9405	0.9380	0.7672	0.8179	
30	0.9543	0.9097	0.9530	0.9546	0.9103	0.9536	0.9524	0.8170	0.8578	
35	0.9680	0.9363	0.9672	0.9682	0.9367	0.9674	0.9670	0.8700	0.8997	
40	0.9829	0.9657	0.9825	0.9830	0.9659	0.9826	0.9825	0.9294	0.9459	









## ATTACHMENT C - APPENDIX I - TABLE 12

## PART 1

TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

## ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: TERM TO 65

ISSUE AGE: 20

1958 CURTATE CSO MORTALITY, AGE NEAREST BIRTHDAY

AT END OF POLICY YEAR	FOR NLP RESERVE INTEREST			FOR CRVM RESERVE INTEREST			FOR NFV INTEREST		
	3.5	4.0	4.5	3.5	4.0	4.5	3.5	4.0	5.5
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM		
	4.69	4.42	4.17	4.83	4.56	4.31	5.76	5.57	5.13
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)					
				1.73	1.72	1.71			
	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES		
0							-23.74	-23.62	-23.51
1	3.07	2.81	2.58	0.00	0.00	0.00	-20.44	-20.60	-21.03
2	6.20	5.70	5.24	3.17	2.92	2.68	-17.05	-17.49	-18.64
3	9.43	8.68	7.99	6.43	5.92	5.46	-13.57	-14.28	-16.14
4	12.74	11.76	10.84	9.78	9.03	8.33	-10.00	-10.97	-13.52
5	16.16	14.95	13.81	13.23	12.25	11.32	-6.30	-7.54	-10.78
6	19.68	18.25	16.90	16.79	15.58	14.44	-2.50	-3.98	-7.90
7	23.31	21.66	20.10	20.45	19.02	17.66	1.42	-0.31	-4.89
8	27.03	25.18	23.42	24.22	22.57	21.02	5.45	3.49	-1.74
9	30.86	28.81	26.86	28.09	26.24	24.49	9.60	7.41	1.55
10	34.79	32.55	30.42	32.05	30.01	28.07	13.84	11.45	4.99
11	38.81	36.40	34.09	36.12	33.90	31.78	18.20	15.60	8.56
12	42.92	40.35	37.88	40.28	37.89	35.60	22.66	19.88	12.29
13	47.12	44.41	41.80	44.53	41.99	39.55	27.22	24.27	16.17
14	51.42	48.57	45.83	48.88	46.20	43.61	31.89	28.78	20.20
15	55.81	52.84	49.97	53.31	50.51	47.79	36.66	33.41	24.38
16	60.25	57.18	54.21	57.81	54.89	52.07	41.50	38.13	28.70
17	64.74	61.59	58.52	62.35	59.35	56.43	46.40	42.92	33.14
18	69.25	66.04	62.90	66.91	63.84	60.84	51.33	47.76	37.69
19	73.74	70.48	67.28	71.45	68.33	65.27	56.24	52.62	42.29
20	78.17	74.89	71.66	75.95	72.79	69.69	61.12	57.45	46.94
25	98.50	95.40	92.29	96.59	93.59	90.58	83.88	80.32	69.77
30	112.48	110.08	107.61	110.93	108.60	106.20	100.63	97.75	88.83
35	112.20	110.90	109.50	111.07	109.81	108.45	103.56	101.83	96.10
40	83.90	83.74	83.49	83.27	83.12	82.89	79.09	78.63	76.77

ATTACHMENT C - APPENDIX I - TABLE 12

PART 2

COMPARISONS OF  
TERMINAL RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

ANNUAL PREMIUM PLANS PER \$1000 FACE AMOUNT

PLAN: TERM TO 65                      ISSUE AGE: 20

1958 CURTATE CSO MORTALITY; AGE NEAREST BIRTHDAY

J/K = RATIOS OF VALUES CALCULATED AT INTEREST RATE J  
TO THOSE CALCULATED AT INTEREST RATE K

AT END OF POLICY YEAR	NET LEVEL PREMIUM RESERVES			CRVM RESERVES			CASH SURRENDER VALUES		
	J/K	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	4.5/3.5	4.5/4.0	4.0/3.5	5.5/3.5
	NET ANNUAL PREMIUM			MODIFIED PREMIUM			ADJUSTED PREMIUM		
	0.9433	0.8910	0.9445	0.9446	0.8933	0.9457	0.9672	0.8911	0.9213
				MODIFIED PREMIUM LESS EXCESS OF (A) OVER (B)					
				0.9952	0.9904	0.9952			
	RESERVES			RESERVES			VALUES		
0							0.9948	0.9903	0.9954
1	0.9174	0.8409	0.9166	1.1065	0.0000	0.0000	1.0078	1.0290	1.0210
2	0.9192	0.8440	0.9183	0.9198	0.8452	0.9189	1.0256	1.0928	1.0656
3	0.9210	0.8474	0.9201	0.9217	0.8487	0.9208	1.0521	1.1888	1.1299
4	0.9230	0.8509	0.9220	0.9236	0.8522	0.9227	1.0974	1.3530	1.2329
5	0.9250	0.8546	0.9240	0.9257	0.8559	0.9247	1.1954	1.7101	1.4306
6	0.9271	0.8585	0.9260	0.9278	0.8598	0.9268	1.5938	3.1645	1.9855
7	0.9292	0.8624	0.9281	0.9299	0.8637	0.9289	-0.2157	-3.4459	15.9779
8	0.9314	0.8664	0.9303	0.9320	0.8677	0.9310	0.6406	-0.3190	-0.4980
9	0.9335	0.8704	0.9324	0.9342	0.8717	0.9331	0.7725	0.1619	0.2096
10	0.9357	0.8745	0.9346	0.9363	0.8758	0.9353	0.8270	0.3602	0.4355
11	0.9379	0.8786	0.9368	0.9385	0.8798	0.9375	0.8574	0.4706	0.5488
12	0.9401	0.8827	0.9390	0.9407	0.8839	0.9396	0.8773	0.5423	0.6182
13	0.9423	0.8869	0.9412	0.9429	0.8881	0.9418	0.8915	0.5938	0.6661
14	0.9446	0.8911	0.9434	0.9452	0.8923	0.9441	0.9025	0.6333	0.7017
15	0.9468	0.8954	0.9457	0.9474	0.8965	0.9463	0.9113	0.6651	0.7298
16	0.9491	0.8997	0.9480	0.9496	0.9008	0.9486	0.9187	0.6916	0.7528
17	0.9514	0.9040	0.9502	0.9519	0.9050	0.9508	0.9251	0.7144	0.7722
18	0.9536	0.9083	0.9525	0.9541	0.9093	0.9530	0.9306	0.7343	0.7890
19	0.9558	0.9125	0.9547	0.9563	0.9135	0.9552	0.9355	0.7520	0.8038
20	0.9580	0.9167	0.9569	0.9585	0.9176	0.9574	0.9400	0.7679	0.8170
25	0.9685	0.9370	0.9674	0.9689	0.9377	0.9678	0.9576	0.8318	0.8686
30	0.9787	0.9567	0.9776	0.9790	0.9573	0.9779	0.9714	0.8828	0.9088
35	0.9885	0.9760	0.9874	0.9887	0.9764	0.9876	0.9833	0.9280	0.9438
40	0.9980	0.9951	0.9971	0.9982	0.9954	0.9972	0.9941	0.9707	0.9764









## ATTACHMENT C - APPENDIX I - TABLE 15

RESERVES AND NONFORFEITURE VALUES  
FOR VARIOUS INTEREST ASSUMPTIONS

SINGLE PREMIUM LIFE INSURANCE PER \$1000 FACE AMOUNT

1958 CURTATE CSO MORTALITY, AGE NEAREST BIRTHDAY

ATTAINED AGE	RESERVES			CASH VALUES			RATIO PROPOSED CASH VALUES TO PROPOSED RESERVES
	PRESENT 4.0	PROPOSED 5.5	RATIO PROPOSED TO PRESENT	PRESENT 4.0	PROPOSED 6.5	RATIO PROPOSED TO PRESENT	
0	97.12	53.82	0.5542	97.12	39.87	0.4106	0.7408
5	104.77	55.67	0.5314	104.77	39.29	0.3751	0.7058
10	121.36	66.09	0.5446	121.36	46.90	0.3864	0.7096
15	141.65	79.77	0.5632	141.65	57.37	0.4050	0.7191
20	165.00	96.11	0.5825	165.00	70.07	0.4247	0.7291
25	192.53	116.39	0.6045	192.53	86.29	0.4482	0.7414
30	225.72	142.45	0.6311	225.72	108.00	0.4785	0.7582
35	265.46	175.64	0.6616	265.46	136.75	0.5151	0.7786
40	312.15	216.95	0.6950	312.15	173.85	0.5570	0.8013
45	364.96	266.05	0.7290	364.96	219.29	0.6009	0.8243
50	423.35	322.89	0.7627	423.35	273.40	0.6458	0.8467
55	486.02	386.58	0.7954	486.02	335.64	0.6906	0.8682
60	551.41	455.76	0.8265	551.41	404.94	0.7344	0.8885
65	617.14	527.94	0.8555	617.14	478.91	0.7760	0.9071
70	679.99	599.25	0.8813	679.99	553.51	0.8140	0.9237
75	737.29	666.15	0.9035	737.29	624.71	0.8473	0.9378
80	790.13	729.63	0.9234	790.13	693.52	0.8777	0.9505
85	834.38	784.01	0.9396	834.38	753.28	0.9028	0.9608
90	873.15	832.60	0.9536	873.15	807.36	0.9247	0.9697

## ATTACHMENT C - APPENDIX I - TABLE 16

SINGLE PREMIUM IMMEDIATE LIFE ANNUITY  
RESERVES FOR AN ANNUITY OF \$1200 PER YEAR  
FOR VARIOUS INTEREST RATE ASSUMPTIONS

## 1971 INDIVIDUAL ANNUITY MORTALITY TABLE

AGE	MALE LIVES						FEMALE LIVES					
	RESERVES BASED ON			RATIOS OF RESERVES			RESERVES BASED ON			RATIO OF RESERVES		
	AN INTEREST RATE OF			6.0	7.5	7.5	AN INTEREST RATE OF			6.0	7.5	7.5
	3.5	6.0	7.5	TO	TO	TO	3.5	6.0	7.5	TO	TO	TO
50	20245	15121	13009	0.747	0.643	0.860	22318	16299	13877	0.730	0.622	0.851
51	19865	14914	12859	0.751	0.647	0.862	21949	16114	13750	0.734	0.626	0.853
52	19481	14702	12705	0.755	0.652	0.864	21571	15921	13617	0.738	0.631	0.855
53	19094	14485	12547	0.759	0.657	0.866	21185	15721	13477	0.742	0.636	0.857
54	18704	14264	12384	0.763	0.662	0.868	20792	15514	13331	0.746	0.641	0.859
55	18309	14038	12217	0.767	0.667	0.870	20392	15300	13179	0.750	0.646	0.861
56	17911	13806	12044	0.771	0.672	0.872	19986	15080	13021	0.755	0.652	0.863
57	17509	13570	11867	0.775	0.678	0.875	19574	14853	12858	0.759	0.657	0.866
58	17102	13327	11684	0.779	0.683	0.877	19157	14621	12689	0.763	0.662	0.868
59	16690	13078	11495	0.784	0.689	0.879	18736	14382	12515	0.768	0.668	0.870
60	16274	12823	11300	0.788	0.694	0.881	18309	14138	12335	0.772	0.674	0.872
61	15852	12561	11098	0.792	0.700	0.884	17876	13886	12148	0.777	0.680	0.875
62	15425	12291	10889	0.797	0.706	0.886	17436	13626	11955	0.781	0.686	0.877
63	14993	12015	10673	0.801	0.712	0.888	16988	13357	11752	0.786	0.692	0.880
64	14555	11731	10449	0.806	0.718	0.891	16530	13076	11539	0.791	0.698	0.882
65	14113	11439	10217	0.811	0.724	0.893	16060	12784	11314	0.796	0.704	0.885
66	13665	11140	9978	0.815	0.730	0.896	15577	12478	11077	0.801	0.711	0.888
67	13214	10834	9731	0.820	0.736	0.898	15084	12159	10826	0.806	0.718	0.890
68	12760	10522	9478	0.825	0.743	0.901	14579	11826	10563	0.811	0.725	0.893
69	12303	10205	9218	0.829	0.749	0.903	14066	11482	10288	0.816	0.731	0.896
70	11846	9882	8952	0.834	0.756	0.906	13545	11127	10001	0.822	0.738	0.899
71	11387	9554	8680	0.839	0.762	0.909	13018	10763	9704	0.827	0.745	0.902
72	10930	9223	8403	0.844	0.769	0.911	12488	10390	9398	0.832	0.753	0.905
73	10473	8888	8122	0.849	0.775	0.914	11956	10010	9083	0.837	0.760	0.907
74	10019	8551	7836	0.853	0.782	0.916	11424	9624	8761	0.843	0.767	0.910
75	9568	8212	7548	0.858	0.789	0.919	10893	9234	8433	0.848	0.774	0.913
76	9121	7872	7256	0.863	0.796	0.922	10364	8840	8099	0.853	0.781	0.916
77	8679	7532	6963	0.868	0.802	0.924	9840	8444	7760	0.858	0.789	0.919
78	8242	7193	6668	0.873	0.809	0.927	9322	8048	7419	0.863	0.796	0.922
79	7813	6855	6373	0.877	0.816	0.930	8811	7651	7075	0.868	0.803	0.925
80	7392	6521	6079	0.882	0.822	0.932	8309	7257	6730	0.873	0.810	0.927
85	5403	4892	4624	0.905	0.856	0.945	6002	5380	5060	0.896	0.843	0.940
90	3608	3344	3202	0.927	0.887	0.958	4237	3874	3693	0.914	0.869	0.951
95	2207	2084	2016	0.944	0.913	0.967	3168	2939	2816	0.928	0.889	0.958
100	1295	1238	1207	0.957	0.932	0.975	2356	2216	2140	0.941	0.908	0.965
105	716	691	677	0.965	0.945	0.980	1513	1444	1405	0.954	0.928	0.973
110	352	342	336	0.971	0.954	0.983	729	703	689	0.966	0.947	0.980

## ATTACHMENT C - APPENDIX I - TABLE 17

SINGLE PREMIUM IMMEDIATE LIFE ANNUITY  
RESERVES FOR AN ANNUITY OF \$1200 PER YEAR  
FOR VARIOUS INTEREST RATE ASSUMPTIONS

## 1971 GROUP ANNUITY MORTALITY TABLE

A G E	MALE LIVES						FEMALE LIVES					
	RESERVES BASED ON			RATIOS OF RESERVES			RESERVES BASED ON			RATIO OF RESERVES		
	AN INTEREST RATE OF			6.0	7.5	7.5	AN INTEREST RATE OF			6.0	7.5	7.5
	3.5	6.0	7.5	TO	TO	TO	3.5	6.0	7.5	TO	TO	TO
			3.5	3.5	6.0				3.5	3.5	6.0	
50	19438	14718	12737	0.757	0.655	0.865	22125	16227	13841	0.733	0.626	0.853
51	19025	14484	12566	0.761	0.660	0.868	21748	16037	13711	0.737	0.630	0.855
52	18607	14244	12388	0.766	0.666	0.870	21362	15839	13573	0.741	0.635	0.857
53	18184	13997	12204	0.770	0.671	0.872	20965	15632	13428	0.746	0.640	0.859
54	17755	13744	12013	0.774	0.677	0.874	20559	15415	13275	0.750	0.646	0.861
55	17321	13483	11816	0.778	0.682	0.876	20142	15189	13113	0.754	0.651	0.863
56	16882	13215	11611	0.783	0.688	0.879	19715	14953	12943	0.758	0.656	0.866
57	16436	12938	11398	0.787	0.694	0.881	19278	14707	12763	0.763	0.662	0.868
58	15983	12654	11178	0.792	0.699	0.883	18832	14451	12575	0.767	0.668	0.870
59	15525	12361	10948	0.796	0.705	0.886	18377	14186	12378	0.772	0.674	0.873
60	15062	12060	10711	0.801	0.711	0.888	17914	13911	12172	0.777	0.679	0.875
61	14597	11754	10468	0.805	0.717	0.891	17443	13627	11957	0.781	0.685	0.877
62	14129	11442	10218	0.810	0.723	0.893	16966	13334	11733	0.786	0.692	0.880
63	13659	11124	9961	0.814	0.729	0.895	16482	13033	11501	0.791	0.698	0.882
64	13188	10800	9698	0.819	0.735	0.898	15991	12722	11259	0.796	0.704	0.885
65	12716	10472	9429	0.824	0.742	0.900	15494	12402	11009	0.800	0.710	0.888
66	12247	10141	9157	0.828	0.748	0.903	14991	12073	10749	0.805	0.717	0.890
67	11783	9810	8882	0.833	0.754	0.905	14482	11734	10478	0.810	0.724	0.893
68	11325	9480	8606	0.837	0.760	0.908	13965	11385	10196	0.815	0.730	0.896
69	10874	9151	8329	0.842	0.766	0.910	13442	11025	9904	0.820	0.737	0.898
70	10432	8825	8054	0.846	0.772	0.913	12917	10658	9603	0.825	0.743	0.901
71	10001	8505	7783	0.850	0.778	0.915	12393	10287	9296	0.830	0.750	0.904
72	9582	8191	7515	0.855	0.784	0.917	11875	9915	8987	0.835	0.757	0.906
73	9172	7880	7249	0.859	0.790	0.920	11366	9546	8678	0.840	0.763	0.909
74	8767	7570	6981	0.863	0.796	0.922	10867	9179	8369	0.845	0.770	0.912
75	8363	7257	6710	0.868	0.802	0.925	10379	8817	8062	0.849	0.777	0.914
76	7963	6943	6435	0.872	0.808	0.927	9902	8459	7756	0.854	0.783	0.917
77	7568	6630	6160	0.876	0.814	0.929	9435	8105	7453	0.859	0.790	0.920
78	7186	6323	5890	0.880	0.820	0.931	8981	7756	7152	0.864	0.796	0.922
79	6820	6027	5627	0.884	0.825	0.934	8538	7413	6855	0.868	0.803	0.925
80	6470	5742	5373	0.888	0.830	0.936	8108	7077	6562	0.873	0.809	0.927
85	4971	4498	4252	0.905	0.855	0.945	6127	5484	5153	0.895	0.841	0.940
90	3789	3487	3326	0.920	0.878	0.954	4408	4036	3839	0.916	0.871	0.951
95	2785	2603	2504	0.935	0.899	0.962	2959	2764	2658	0.934	0.898	0.962
100	1890	1792	1738	0.948	0.920	0.970	1824	1733	1682	0.950	0.922	0.971
105	1001	964	943	0.963	0.942	0.978	892	860	842	0.964	0.944	0.979
110	0	0	0	0.000	0.000	0.000	0	0	0	0.000	0.000	0.000

## ATTACHMENT D

## Linkage of Nonforfeiture Values With Valuation Reserves

Prepared By  
The Society of Actuaries  
Special Committee on  
Nonforfeiture Values

The following commentary, after highlighting the strong linkage that currently exists between valuation reserves and nonforfeiture value requirements, discusses the origins of this relationship. It is concluded that this linkage is undesirable and should be severed.

Standard valuation and nonforfeiture laws tie closely together minimum required nonforfeiture values and policy valuation reserves on both a policy by policy basis and on an aggregate basis. The linkage is forceful in that the required relationships between mortality and interest assumptions and expense allowances cause the policy reserve generally to be not less than the minimum nonforfeiture value applicable to that contract. Typically, the minimum nonforfeiture value is the policy valuation reserve less the unamortized balance of an initial expense allowance. The valuation law also requires that aggregate reserves be not less than aggregate reserves calculated on the nonforfeiture mortality and interest basis.

The 1941 Report of the Committee to Study Nonforfeiture Benefits and Related Matters commissioned by the National Association of Insurance Commissioners stated clearly that this linkage should be broken. Among the conclusions in Chapter XI one finds:

There is no necessity for the requirement that valuation of policy reserves and determination of nonforfeiture benefits be made on the basis of the same mortality table and rate of interest. Such a requirement is unnecessarily awkward and does not necessarily promote equity. In the first instance solvency is principally involved while, in the second instance, the company-policyholder relations of equity are principally involved.

The first recommendation put forward states:

The elimination of the artificial relationship existing between the mortality and interest standards now specified for the valuation of policy reserve liabilities and the determination of nonforfeiture benefits. The same minimum nonforfeiture requirements should apply regardless of the basis or mode of valuation.

The concept of policy nonforfeiture values unfolded slowly over the decades, tracking the development of valuation reserves. Over time the valuation reserve came to represent prefunding of future liabilities out of policyholder premiums. When a policyholder came to terminate his policy in midstream, questions began to be asked as to why he should not have back the equity he had built up in his policy. Accordingly, nonforfeiture values and valuation reserves became closely intertwined.

The run-on-the-bank fear has always existed and will continue to exist as a concern for those who occupy themselves with the solvency of an insurance company. Should every policyholder decide to quit, the insurer must be certain that there is sufficient money on hand to pay everyone off. As a consequence of this requirement, it is argued that aggregate valuation reserves should equal or exceed aggregate nonforfeiture values. While the need to be able to handle the drain must be taken into account, it has become evident that if a problem should arise, it would not be because valuation reserves do not at least equal outstanding nonforfeiture values; the problem would lie primarily on the asset side of the ledger where book asset values might not be realizable.

The Society of Actuaries Special Committee on Nonforfeiture Laws in its work adopted the position that the subjects of nonforfeiture values and valuation reserves are severable. It is consistent with the thinking of that committee that there is no reason for the minimum nonforfeiture value to recognize the policy valuation reserve. The only obligation that does exist is that the valuation process take into account, among other policy features, any guaranteed nonforfeiture benefits built into the policies being valued. The way in which that connection is handled will depend to a large extent upon the way in which thinking governing the valuation processes evolves. In particular it would appear that the concept that a policy valuation reserve should exceed the required nonforfeiture value will at best be only one factor to be considered in the valuation process.

Valuation and nonforfeiture processes reach out in different directions. Valuation should take into account futures - future gross premiums and projected expense rates; otherwise looming insolvency might not be detected. The basic concept of a nonforfeiture value, however it may be constructed, carries with it a retrospective flavor. All regulatory thinking to date also states that in the development of nonforfeiture values the margin for profit and overall expense is to be ignored and that required nonforfeiture values should not be influenced by the level of the gross premium. This pair of contrasts cannot be reconciled with the connection between valuation reserves and nonforfeiture values contained in the current law.

Whereas nonforfeiture value requirements must of necessity relate to individual policies, future development of valuation theory and practice may well concern itself with the risks faced by a portfolio rather than by the individual policies of which the portfolio is made up. Should this development occur, with the concept of a valuation of reserve for an individual policy becoming relatively unimportant, linkage between nonforfeiture values and valuation reserves could not even be forced.

If, as was recommended by the Society of Actuaries Special Committee, there is to be one and only one set of minimum values for any particular plan, the tying of valuation reserves to minimum nonforfeiture values will tend to depress valuation reserves toward that single minimum level. There is no logical or rational basis for this consequence; it merely demonstrates that the connection between the two does not possess the strength it was once thought to have.

It is important that the valuation process be made responsive to changes in experience occurring following issue. Nonforfeiture values, on the other hand, are to be established at issue by law and by current marketing practice. A prudent company may well change from time to time its valuation basis and the valuation reserves on a block of business already in force. Each time such a change occurs, the linkage appears less and less real. In a similar vein, the concept of actuarial certification encourages examination of the appropriateness of reserve bases from time to time following issue; a valuation process that is hamstrung by nonforfeiture requirements set at issue defeats the concept.

The approach that aggregate policy valuation reserves must be at least equal to aggregate nonforfeiture values is somewhat more in tune with the direction that valuation thinking is likely to take. Maintaining the relationship between nonforfeiture and valuation requirements on an aggregate basis focuses attention on the need to value portfolios rather than policies. To the extent that the relationship examined on an aggregate basis becomes one and only one of several valuation tests, the relationship between the two is useful.

In summary the close relationship that currently exists between valuation reserves and nonforfeiture values is contrary to the thinking underlying the two relevant standard laws. Examination of the implications of the relationship especially upon the valuation process suggests that maintenance of the relationship may have a retarding effect. Accordingly, it is recommended that nonforfeiture value requirements be established independently of valuation considerations, and that in the process of valuing policy liabilities existing guaranteed nonforfeiture values be only one element taken into consideration.

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#### ATTACHMENT E

##### An Explanation of the Commissioners Reserve Method for Individual Deferred Annuities

The commissioners' reserve method for individual deferred annuities is defined in Section 4-a of the presently proposed amended Standard Valuation Law as:

the greatest of the respective excesses of the present values, at the date of valuation, of the future guaranteed benefits, including guaranteed nonforfeiture benefits, provided for by such contracts at the end of each respective contract year, over the present value, at the date of valuation, of any future valuation considerations derived from the future gross considerations, required by the terms of such contracts that become payable prior to the end of such respective contract year. The future guaranteed benefits shall be determined by using the mortality table, if any, and the interest rate, or rates, specified in such contracts for determining guaranteed benefits. The valuation considerations are the portions of the respective gross considerations applied under the terms of such contracts to determine nonforfeiture values.

The tables attached illustrate the calculation of reserves by this method for a:

- E1 - Single Consideration Plan
- E2 - Fixed Annual Consideration Plan
- E3 - Flexible Consideration Plan

TABLE E1

Illustration of Reserve Calculation by the Commissioners' Reserve Method  
for Individual Deferred Annuities for a Single Consideration Plan

a. Description of illustrative plan:

- (1) The gross single consideration is accumulated at guaranteed rates of interest varying by contract year.
- (2) The cash surrender value is a percentage of the accumulation of the gross single consideration at the guaranteed rates of interest, the percentage varying by contract year.
- (3) The illustrative plan is a twenty year deferred annuity with a single consideration of \$10,000.

b. There are two parts to the table in this illustration:

Part 1 - A summary table showing for each contract year.

- (1) The guaranteed interest rate applicable to the contract year.
- (2) The accumulated value of the gross single consideration as of the end of the contract year.
- (3) The percentage applicable to the accumulated value of the gross single consideration to obtain the cash surrender value at the end of each contract year.
- (4) The cash surrender value as of the end of the contract year.
- (5) The reserve as of the end of the contract year as determined from Part 2.

Part 2 - A table as of each valuation date of all those present values of the surrender values at the end of each contract year in the future, which are in excess of the surrender value actually available at the end of that contract year.

TABLE E1

## PART 1

Summary Table

<u>End of Contract Year</u>	<u>Guaranteed Interest Rate</u>	<u>Gross Consideration Accumulation</u>	<u>Percentage For Surrender</u>	<u>Cash Surrender Value</u>	<u>Terminal Reserve</u>
0	9%	\$10,000	90%	\$ 9,810	\$11,568
1	9%	\$10,900	90	\$ 9,810	\$12,204
2	8	11,772	91	10,713	12,875
3	8	12,714	92	11,697	13,583
4	8	13,731	93	12,770	14,330
5	8	14,829	94	13,939	15,118
6	7%	\$15,867	95%	\$15,074	\$15,950
7	7	16,978	95	16,129	16,827
8	7	18,167	95	17,259	17,753
9	7	19,438	95	18,466	18,729
10	7	20,799	95	19,759	19,759
11	3%	\$21,423	95%	\$20,352	\$20,352
12	3	22,066	95	20,963	20,963
13	3	22,728	95	21,592	21,592
14	3	23,409	95	22,239	22,239
15	3	24,112	95	22,906	22,906
16	3%	\$24,835	95%	\$23,593	\$23,593
17	3	25,580	95	24,301	24,301
18	3	26,347	95	25,030	25,030
19	3	27,138	95	25,781	25,781
20	3	27,952	100	27,952	27,952

TABLE E1

PART 2

Table of Present Values of Surrender Values

Table of present values at 5 1/2% interest

Contract Year of Valuation	For cash surrender values available at end of contract year										
	1	2	3	4	5	6	7	8	9	10	11
Surrender Value Available:											
0	9,810	10,713	11,697	12,770	13,939	15,074	16,129	17,259	18,466	19,759	20,352
1	9,299	9,625	9,961	10,308	10,665	10,932	11,088	11,246	11,405	11,568	11,294
2	9,810	10,155	10,509	10,875	11,252	11,534	11,697	11,864	12,032	12,204	11,915
3		10,713	11,087	11,473	11,871	12,168	12,341	12,517	12,694	12,875	12,570
4			11,697	12,104	12,524	12,837	13,020	13,205	13,392	13,583	13,261
5				12,770	13,212	13,543	13,736	13,932	14,129	14,330	13,991
6					13,939	14,288	14,491	14,698	14,906	15,118	14,760
7						15,074	15,288	15,506	15,726	15,950	15,572
8							16,129	16,359	16,591	16,827	16,428
9								17,259	17,503	17,753	17,332
10									18,466	18,729	18,285
11										19,759	19,290
											20,352

\*The present values in this column are the largest and are used for the reserves

TABLE E2

Illustration of Reserve Calculation by the Commissioners' Reserve Method  
for Individual Deferred Annuities for a Fixed Annual Consideration Plan

a. Description of illustrative plan:

The plan described in Illustration 2 from Table B2 of Attachment B is used with a level fixed annual consideration of \$3,000 and a deferred period of 20 years. The cash values for this plan are defined as:

- (1) The accumulation of 95% of the net of the gross annual consideration less an annual contract charge of the lesser of \$25 or 10% of the gross annual consideration.
- (2) At a guaranteed interest rate of 7½% for the first ten years and 3% thereafter.

b. There are two parts to the table in this illustration:

Part 1 - A summary table showing at the end of each contract year:

- (1) The cash surrender value.
- (2) The terminal reserve as determined from Part 2.

Part 2 - With respect to valuation at the end of each contract year:

- (1) The present value at an interest rate of 4½% of the cash surrender value available at the end of each succeeding contract year until the contract duration at which such present value equals the cash surrender value as of the valuation date.
- (2) The present value at an interest rate of 4½% of the portions of those respective gross considerations applied under the terms of the contract to determine nonforfeiture values for the period from the valuation date to the end of the contract year at which the benefit (surrender value) becomes payable.
- (3) The greatest of the excess of (1) over (2), or the cash surrender value at the date of valuation is the reserve.

TABLE E2

## PART 1

Summary Table

<u>End of Contract Year</u>	<u>Cash Surrender Value</u>	<u>Terminal Reserve</u>
0	-	5,314
1	3,038	8,379
2	6,304	11,582
3	9,815	14,930
4	13,590	18,428
5	17,647	22,083
6	22,009	25,903
7	26,698	29,895
8	31,738	34,066
9	37,157	38,425
10	42,981	42,981
11	47,181	47,181
12	51,507	51,507
13	55,964	55,964
14	60,554	60,554
15	65,281	65,281
16	70,151	70,151
17	75,166	75,166
18	80,332	80,332
19	85,653	85,653
20	89,074	89,074

TABLE E2

## PART 2

Present Value

Contract Year of Valuation	Present value as of the end of the contract year of valuation of surrender values and future considerations with respect to values available at end of year.											
	1	2	3	4	5	6	7	8	9	10	11	12
Surrender value at end of contract year	3,038	6,304	9,815	13,590	17,647	22,009	26,698	31,738	37,157	42,981	47,181	51,507
Present Values												
0 CSV	2,907	5,773	8,601	11,396	14,161	16,901	19,618	22,318	25,003	27,677	29,073	30,372
Consid	2,705	5,293	7,769	10,139	12,407	14,577	16,654	18,642	20,543	22,363	24,105	25,771
Net	202	480	832	1,257	1,754	2,324	2,964	3,676	4,460	5,314*	6,968	4,601
1 CSV	3,038	6,033	8,988	11,909	14,798	17,661	20,501	23,322	26,128	28,922	30,381	31,738
Consid	—	2,705	5,293	7,769	10,139	12,407	14,577	16,654	18,642	20,543	22,363	24,105
Net	3,038	3,328	3,695	4,140	4,659	5,254	5,924	6,668	7,486	8,379*	8,018	7,633
2 CSV		6,304	9,392	12,445	15,464	18,456	21,424	24,371	27,304	30,224	31,748	33,167
Consid		—	2,705	5,293	7,769	10,139	12,407	14,577	16,654	18,642	20,543	22,363
Net		6,304	6,687	7,152	7,695	8,317	9,017	9,794	10,650	11,582*	11,205	10,804
3 CSV			9,815	13,005	16,160	19,286	22,388	25,468	28,533	31,584	33,170	34,659
Consid			—	2,705	5,293	7,769	10,139	12,407	14,577	16,654	18,642	20,543
Net			9,815	10,300	10,867	11,517	12,249	13,061	13,956	14,930*	14,528	14,116
4 CSV				13,590	16,887	20,154	23,395	26,614	29,817	33,005	34,670	36,219
Consid				—	2,705	5,293	7,769	10,139	12,407	14,577	16,654	18,642
Net				13,590	14,182	14,861	15,626	16,475	17,410	18,428*	18,016	17,577
5 CSV					17,647	21,061	24,448	27,812	31,158	34,490	36,230	37,849
Consid					—	2,705	5,293	7,769	10,139	12,407	14,577	16,654
Net					17,647	18,356	19,155	20,043	21,019	22,083*	21,653	21,195
6 CSV						22,009	25,543	29,063	32,561	36,042	37,860	39,552
Consid						—	2,705	5,293	7,769	10,139	12,407	14,577
Net						22,009	22,838	23,770	24,792	25,903*	25,453	24,975
7 CSV							26,698	30,371	34,026	37,664	39,564	41,332
Consid							—	2,705	5,293	7,769	10,139	12,407
Net							26,698	27,666	28,733	29,897*	29,425	28,925
8 CSV								31,738	35,557	39,359	41,345	43,192
Consid								—	2,705	5,293	7,769	10,139
Net								31,738	32,852	34,066*	33,576	33,053
9 CSV									37,157	41,130	43,205	45,135
Consid									—	2,705	5,293	7,769
Net									37,157	38,427*	37,912	37,366
10 CSV										42,981	45,149	47,167
Consid										—	2,705	5,293
Net										42,981*	42,444	41,874

\*The net present values in this column are the largest and are used for reserves

TABLE E3

## Flexible Consideration

## Description of the plan:

Use the same example as for Illustration 2 Table B2 but assume a flexible plan and that \$3,000 is paid as a consideration each year.

Since it is not known what considerations, if any, will be paid in the future, the present value of future considerations cannot be determined. Therefore, the cash surrender value at the date of valuation is accumulated forward at the guaranteed interest rate until such time as the guaranteed interest rate no longer exceeds the valuation interest rate and the resultant accumulation discounted back to the valuation date using the valuation interest rate. In this example, this is equivalent to the present value of the future guaranteed benefits less the present value of the future net considerations assuming that no further considerations will be received.

## Comparison With Nonflexible Plan Reserves:

The higher reserve carried on a comparable nonflexible plan takes into account the excess interest guarantees on considerations fixed by the contract for the period after the valuation date on the nonflexible plan.

<u>End of Contract Year</u>	<u>Cash Surrender Value</u>	<u>Terminal Reserve</u>	<u>Comparable Non Flexible Plan Reserve</u>	<u>Excess of Non Flexible Plan Reserve over Flexible Plan Reserve</u>
0		0	5,314	5,314
1	3,038	3,919	8,379	4,460
2	6,304	7,906	11,582	3,676
3	9,815	11,966	14,930	2,964
4	13,590	16,105	18,428	2,323
5	17,647	20,330	22,083	1,753
6	22,009	24,647	25,903	1,256
7	26,698	29,064	29,895	831
8	31,738	33,586	34,066	480
9	37,157	38,224	38,425	201
10	42,981	42,981	42,981	-0-
11	47,181	47,181	47,181	-0-
12	51,507	51,507	51,507	-0-
13	55,964	55,964	55,964	-0-
14	60,554	60,554	60,554	-0-
15	65,281	65,281	65,281	-0-
16	70,151	70,151	70,151	-0-
17	75,166	75,166	75,166	-0-
18	80,332	80,332	80,332	-0-
19	85,653	85,653	85,653	-0-
20	89,074	89,074	89,074	-0-

## ATTACHMENT F

An Explanation of the Revision of the Premium Deficiency  
Reserve Section of the Standard Valuation Law

Section 7 of the present Standard Valuation Law defines the premium deficiency reserve such that, if an insurer wishes to maintain reserves on a more conservative basis than that defined by the minimum reserve valuation standard, a larger premium deficiency reserve is required than would be required if minimum reserves had been calculated. Such increased premium deficiency reserves would be in addition to the increase in the basic reserve resulting from such strengthening. The combined increase in total reserve is usually too great to make such a change feasible. The revision to the Standard Valuation Law recommended at this time would define the minimum reserve, in the event that the gross premium charged in any contract year is less than the valuation net premium calculated by the method used in calculating the reserve thereon, but using the minimum valuation standards of mortality and rate of interest as the greater of either:

- (a) The reserve calculated according to the mortality table, rate of interest and method actually used for such policy or contract; or
- (b) The reserve calculated by the method actually used for such policy or contract but using the minimum reserve standards of mortality and rate of interest and replacing the valuation net premium by the actual gross premium in each contract year for which the valuation net premium exceeds the actual gross premium.

In changing to a more conservative standard of valuation, the revision recommended will greatly alleviate the extreme and redundant increase in reserves generated by the present Standard Valuation Law. Table F1 compares the effect of strengthening reserves to a more conservative basis comparing reserves calculated according to the present Standard Valuation Law with those calculated according to the recommended revision.

TABLE F1

An Illustration of Valuation at a More Conservative Interest Assumption Than That Required  
for Minimum Reserves Where the Gross Premium is Less Than the Net Valuation Premium

For a whole life plan issued at age 35 assume, for the purpose of this illustration, a gross annual premium of \$12.87 per \$1,000 fact amount, equal the net level reserve valuation method annual premium calculated on the basis of the 1958 CSO Mortality Table and 4½% interest. This table compares the terminal reserves required under the present statute with those reserves required under the proposed revisions and illustrates the effect on minimum reserve requirements of strengthening the reserves from those on a minimum reserve basis to those on a 3½% basis.

	Under The Present Statute			Under Revised Statute	
	Basic Reserve	Deficiency Reserve	Total Reserve	Reserve	
				Hypothetical Standard **	Actual Recommended
Minimum reserve at 1958 CSO Mortality and	CRVM 4%	CRVM 4%	CRVM 4%	CRVM 4%	NLP 4½%
Valuation Premium	\$ 14.53	\$-1.66	\$ 12.87	\$ 12.87	\$ 12.87
Reserve at Issue	\$ 0	\$30.04	\$ 30.04	\$ 30.04	\$ 0
Terminal reserve at end of policy year					
1	\$ 0	\$31.32	\$ 31.32	\$ 31.32	\$ 10.97
2	12.51	30.93	43.44	43.44	22.33
5	52.51	29.69	82.20	82.20	58.68
10	124.99	27.41	152.40	152.40	126.18
20	291.79	22.18	313.97	313.97	284.62
30	472.46	16.52	488.98	488.98	460.99

Strengthened To 1958 CSO 3½% Net Level Premium Reserves

Valuation Premium	\$ 15.03	\$-2.16	\$ 12.87	\$ *	\$ *
Reserve at Issue	\$ 0	\$44.22	\$ 44.22	\$ 30.04	\$ 0
Terminal reserve at end of policy year					
1	\$ 13.08	\$43.64	\$ 56.72	\$ 31.32	\$ 13.08
2	26.53	43.04	69.57	43.44	26.53
5	68.90	41.17	110.07	82.20	68.90
10	145.49	37.78	183.27	152.40	145.49
20	316.81	30.21	347.02	316.81	316.81
30	497.20	22.23	519.43	497.20	497.20

Increase In Reserves Resulting From Strengthening to 3½% Net Level

From	4%CRVM	4%CRVM	4½%NLP
Reserve at Issue	\$ 14.18	\$ 0	\$ 0
Terminal Reserve at end of policy year			
1	\$ 25.40	\$ 0	\$ 2.11
2	26.13	0	4.20
5	27.87	0	10.22
10	30.87	0	19.31
20	33.05	2.84	32.19
30	30.45	8.22	36.21

\*Under the proposed revision to the Standard Valuation the valuation premium is either \$15.03, if the reserves are calculated by the 3½% basis, or \$12.87, if the reserves are calculated assuming a gross annual premium equal to the net level annual premium at 4½% interest and using the 1958 CSO Mortality Table.

\*\*For comparison with the present method at the same rate of interest permitted under the present statute.

"Uniform Percentage of Gross Premium Rule"

In valuing plans with gross premiums varying by policy duration, the present Standard Valuation Law specifies that the valuation net premium shall be such uniform percentage of the gross premiums that the present value, at the date of issue of the policy, of all such defined valuation net premiums shall be equal to the sum of the then present value of the benefits provided for by the policy and, in the case of the Commissioners' Reserve Valuation Method, an amount to partially account for additional expenses incurred in the first policy year. The proposed revision of the premium deficiency reserve section states that:

If in any contract year the gross premium charged by any life insurance company on any policy or contract is less than the valuation net premium for the policy or contract calculated by the method used in calculating the reserve thereon but using the minimum valuation standard of mortality and rate of interest. . . .

The "uniform percentage of gross premium" rule appears to be valid for those plans for which the gross premium for each policy year can be expressed as some fixed portion of an "ultimate" or "representative" gross premium for that plan as, for example, a graded premium whole life plan with the first year gross premium 50% of the "ultimate" gross premium and grading upward by a fixed interval of percentage points from policy year to policy year until the "ultimate" premium level is reached. However, for plans such as renewable term insurance and term insurance plans with an automatic conversion at the end of the term period to a whole life plan with the whole life plan gross premium rates guaranteed at issue date of the term plan, the ratio of the gross premium to the actual valuation net premium for a particular period of coverage may not be the same as for other periods of coverage under that plan. These are some of the problems in interpreting any statutes, either present or proposed, concerning the valuation of plans of insurance where the gross premiums for any policy duration are less than the valuation net premiums for that duration. The NAIC technical task force believes that some form of model regulation is needed which will standardize the interpretation to be followed.

Until such time as a model regulation is devised for interpreting the application of the Standard Valuation Law to plans with gross premiums at one or more policy years which are less the corresponding valuation net annual premiums for those respective policy years, the NAIC technical task force will prepare examples to serve as illustrations of at least one approach to the valuation of these plans.

For renewable term insurance, there has been a considerable variation from state to state as to the period to be used for reserve calculations, and there is rising support among regulators to consider the entire guaranteed premium rate period as the period of the plan so that the period of a renewable term plan, renewable to age 65, would be considered as a term to age 65 plan with premiums varying by term renewal period. This is important not only in considering the increasing chance that at each renewal date only those in relatively poorer health than the average physical condition for all persons eligible at that renewal date to continue coverage will elect to renew, but also in considering that in some renewal years the gross premium may be less than the valuation net premium. More work needs to be done by the task force in this area to provide standard procedures for calculating reserves in these special situations.

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(C) Committee Technical Task Force  
to Review Valuation and Nonforfeiture Value Regulation

LIFE INSURANCE

December 1976

This report concerns only the proceedings of the NAIC technical task force since the June 1976 meeting of the NAIC which do not require action by the NAIC at the December 1976 meeting in Phoenix. Recommendations requiring a decision by the NAIC at the December 1976 meeting were sent to members of the (C3) Life Subcommittee in a "Special Report" on November 4, 1976 with subsequent mailings on November 9, 1976 (withdrawing Recommendation (3)) and November 15, 1976 (Attachments B through F).

Proceedings of the Technical Task Force Concerning Life InsuranceIndex to Proceedings:

1. The Standard Nonforfeiture Law.
    - a. Society of Actuaries' Special Committee (Attachment A).
    - b. Summary of Views prepared by American Council of Life Insurers (ACLI) (Attachment B).
    - c. Exposure Draft prepared by ACLI (Attachment C).
  2. The Valuation of the Policy Reserve Liability.
    - a. Basic Principles of Reserve Requirements.
    - b. Reserve Requirements for Interest Rate Guarantees on Active Life Funds Held Under Group Annuity Contracts (Attachment D).
    - c. The Relationship Between Minimum Statutory Reserves and Minimum Surplus.
  3. Disclosure for Individual Deferred Annuity Contracts (Attachments E1 and E2).
  4. Progress on the Construction of New Mortality Tables (Attachment F).
  5. Minutes of Meetings (Attachments G, G1, G2, G3, G4, G5 and H).
1. The Standard Nonforfeiture Law.
    - a. Society of Actuaries' Special Committee on Nonforfeiture Values Final Report (Attachment A). This report covers some studies made subsequent to the Report to the Board of Governors of the Society published by the Society in January 1976. Topics covered are:
      - i. Cash Value and Reserve Linkage (This appears also as Attachment D to the Special Report concerning revisions of the Standard Valuation and Nonforfeiture Laws).
      - ii. Expense Allowances.
      - iii. The Cost of Withdrawal.
      - iv. Trivial Values and Term Exemptions.
      - v. Family Policies.
      - vi. Uniform Seniority.
      - vii. Curtate Versus Continuous Functions.
      - viii. Basis for Age.
      - ix. Fractional Modes and Refund of Unearned Premium at Death.
    - b. Summary of Views on Recommended Changes in the Standard Nonforfeiture Law (Attachment B). This summary compares the views of the Society of Actuaries' Special Committee, the American Council of Life Insurers and the NAIC technical task force with respect to the thirty recommendations, conclusions or observations made by the Society of Actuaries' Special Committee on Nonforfeiture Values. The summary was prepared by the American Council of Life Insurers. It should be noted that some of the views expressed in this summary have changed after further study. A special minority view on deposit term has been received from the Federal Kemper Life Assurance Company, and that company is to be asked for a further explanation of its position.

- c. Proposed Revisions in the NAIC Standard Nonforfeiture Law (Attachment C) prepared by the American Council of Life Insurers. This exposure draft adopts most of the recommendations of the Society of Actuaries' Special Committee and will serve as a starting point for the work of the NAIC technical task force in drafting such revisions.

2. The Valuation of the Policy Reserve Liability.

- a. Basic Principles of Reserve Requirements. The formulation of basic principles of reserve requirements involves an attempt to resolve two classically opposed forces, the theoretical ideal and practical reality. What is needed are not only basic principles for reserve requirements for interest guarantees, but basic principles for reserve requirements in general. Three fundamental principles seem apparent:
- i. The primary purpose of reserve requirements is to lock up enough funds to provide, under reasonable expectations of experience, for the payment of future guaranteed benefits and, in the case of contracts becoming paid up, for the expenses of maintaining such paid up contracts.
  - ii. The minimum reserve requirements must be such that the net cost of insurance to the policyholder is the least that can be expected and still satisfy the primary purpose of such requirements.
  - iii. Reserve requirements must consider the effects of those requirements in designing insurance and annuity products and should not arbitrarily attempt to deliberately limit or mandate the choice of such products.

From these fundamental principles a number of basic rules can be developed with respect to the various areas of valuation problems. Before discussing these, however, there are a number of practical realities which must be observed:

(1) The wide variety of technical competence of the actuarial staffs of the various state insurance departments requires that specific methods and standards for reserve for each type of liability must be provided either in the law or by regulation authorized by law. (The NAIC technical task force must originate these standards to promote uniformity among the states and continuity within each state.)

(2) While it is a noble aspiration that "The actuary working with a particular situation should be free to exercise his professional judgment with respect to the mathematical formulae employed in calculating reserves . . .," the practical fact is that, under the current embryonic system for setting standards of actuarial conduct and for enforcing those standards, the regulatory authorities cannot assume the risk of allowing such freedom and must of necessity set specific standards for reserves. Of course, the factors assumed and not assumed in setting those standards must be delineated in the definition of the standards.

(3) The time frame within which we must operate requires that action be taken as soon as possible for those areas where agreement can be reached as to the proper basis for valuation consistent with that existing or contemplated for other areas. If there is a particular problem with respect to a segment of an area of valuation which cannot be solved now, that should not delay action on those parts of the problem for which a solution seems apparent at the present time.

- b. Reserve Requirements for Interest Rate Guarantees on Active Life Funds Held Under Group Annuity Contracts. Since most states other than New York do not have sufficient statutory authority to promulgate regulations such as presently in operation in New York and since the NAIC technical task force has not yet been able to draft any recommended standard enabling legislation, no further work is being considered by the technical task force in this area until such standard legislation is drafted and adopted by the NAIC. New York will continue to regulate this line of insurance.

A model regulation has been drafted by the NAIC task force patterned after the New York regulation (Attachment D), but adoption of this model by the NAIC is not recommended until standard legislation is drafted and adopted by the NAIC enabling the various states to promulgate such a regulation.

- c. The Relationship Between Minimum Statutory Reserves and Minimum Surplus. This relationship, which includes a study of the nature of minimum surplus standards, is being studied by the NAIC Valuation Technical Advisory Committee and will also possibly involve some work by a special Society of Actuaries' committee. The work on minimum surplus standards, with appropriate annual statement modifications, could result in a very powerful

regulatory test which would establish for each insurer, based upon the entire risk structure for that insurer (mortality, morbidity, persistency, investment, expense), a level of surplus below which the actual amount of capital and surplus should not fall without that insurer being placed under special surveillance. This would be the ultimate early warning system regulatory test. (See Item 6 of Attachment G1 of this report for further details.)

### 3. Disclosure for Individual Deferred Annuity Contracts.

The majority of the NAIC technical task force agrees that for individual deferred annuities:

- a. There is an urgent need for disclosure of guaranteed cash values on all forms of deferred annuities, and for contracts with no cash values the death benefit should be disclosed.
- b. For flexible premium plans values should be shown in an illustrative summary assuming a certain future level of premiums and stating clearly that such a summary is for illustrative purposes only.
- c. Illustrations of benefits derived on the assumption of continuance of the interest rate currently payable must be accompanied by the corresponding guaranteed values, with suitable wording that clearly specifies that illustrative amounts are not guaranteed.
- d. The values at one fixed maturity age, such as age 65, should be required for comparative purposes.
- e. The effective guaranteed annual yield with respect to the gross premiums paid by the annuitant should be shown:
  - i. For all individual deferred annuity contracts with respect to the values available at the fixed maturity age mentioned in d. above.
  - ii. For any individual deferred annuity contract, whose sales literature or any other promotional material refers to any guaranteed rate of interest in excess of the maximum rate of interest allowed in the valuation of policy reserves on such contracts, with respect to any guaranteed values disclosed in such contracts.
  - iii. Upon request for such information at any time by the contractholder.

There was considerable discussion of the fifth item above concerning effective yields on gross premiums paid and a strong and vocal minority of the task force opposes any form of disclosure of effective yields on a gross premium basis. Two views pro and con are attached (Attachments E1 and E2). The task force will present these views to the appropriate NAIC task force on disclosure.

### 4. Progress on the Construction of New Mortality Tables.

The minutes of the October 12, 1976 meeting of the Society of Actuaries Committee to Develop New Valuation Tables are given in Attachment F. Separate tables by sex are being developed.

### 5. Minutes of Meetings.

- a. August 18-20, 1976 at the NAIC Central Office, Milwaukee, Wisconsin.

Attachments to this report concerning the minutes of these meetings and reports received and discussed are:

Attachment G - Minutes, General Items.

Attachment G1 - Minutes, (C3) Subcommittee Items.

Attachment G2 - Redraft of Section 3 of Model Individual Deferred Annuity Nonforfeiture Value Legislation.

Attachment G3 - Reserve Requirements for Interest Guarantees on Active Life Funds Held Under Group Annuity Contracts.

Part 1 - Conference, August 3, 1976.

Part 2 - Margin for reinvestment interest rate fluctuations.

Part 3 - Guarantees open to future contributions versus guarantees covering only existing funds.

## Attachment G4 - Reports by American Council of Life Insurers.

- Part 1 - Proposal to increase the statutory interest rates in the standard valuation and nonforfeiture laws.
- Part 2 - Proposed Changes in the standard valuation law.
- Part 3 - Proposed changes in the standard nonforfeiture law.

## Attachment G5 - Report of the Society of Actuaries Committee to Establish New Valuation Tables.

- b. October 14-15, 1976 at the Radisson Hotel, St. Paul, Minnesota.

This meeting was devoted primarily to the drafting of the Special Report containing the recommended drafts of the Individual Deferred Annuity Standard Nonforfeiture Law and the revised valuation and nonforfeiture value interest assumptions for minimum value calculations (Attachment H is a brief and general summary of the minutes of this meeting).

Recommendations

See Special Report sent November 4, 1976, which appears here preceding this report.

John O. Montgomery, Chairman, California; W. Keith Sloan, Arkansas; James Montgomery III, Dist. of Columbia; Erma Edwards, Nevada; William A. White, New Jersey; Thomas J. Kelly, New York; William R. Burns, North Dakota; J. Ramon Estefania, South Carolina; Ted Becker, Texas; LaMar Walker, Utah; Bradford S. Gile, Wisconsin.

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 ATTACHMENT A

The Mutual Life Insurance Company of New York  
 Broadway at 55th Street  
 New York, New York 10019  
 (212) 586-4000

To: John O. Montgomery, Chief Actuary  
 California Insurance Department

From: Adrian Gill, F.S.A., F.C.I.A.  
 Society of Actuaries Nonforfeiture Committee

Re: Final Report "Clean-Up" Society of Actuaries Special Committee on Nonforfeiture Values

Date: October 4, 1976

This is intended as a clean-up communication to you from the Society of Actuaries Special Committee on Nonforfeiture Values. We will deal with a number of items not previously disposed of and end with a summary of the conclusions reached since our Report to the Board of Governors of the Society, released to you in October 1975 in draft form and subsequently published by the Society in January 1976.

The Report has now been discussed at two Society meetings and has generally met with approval of the membership of the Society. Those discussions will appear in the 1976 Record. The Report is also on the agenda of the Society's Board of Governors with a proposal that it be made an opinion of the Board. Thus, it is fair to say that the recommendations in the Report have received wide acceptance in the profession. One industry committee (the Actuarial Committee of the ACLI), has also made known to you its general agreement with our conclusions.

The studies performed since the Report was published have not received the same wide exposure, but since they do not depart in any significant way from the principles and recommendations underlying the Report, we are confident they would meet with similar acceptance. Those further studies are discussed below.

### I. Cash Value and Reserve Linkage

The first appendix was drawn up by John Gardner, Vice-Chairman of our committee and deals with the question of linkage between nonforfeiture values and reserves. While our Report recommends that any statutory linkage be severed, and your committee agreed with that conclusion, we did not develop the underlying reasoning in any detail. We feel the attached is an important document that should prove useful to your task force, especially since the question tends to recur and will most certainly be raised in the NAIC and in state legislatures.

The most recent example is the question raised at your August meeting in Milwaukee where mandatory termination dividends were suggested as a technique for distributing the excess of reserves over cash values, again linking the two! We wish to emphasize the statements in our Report that the asset share is the best measure of equity and that reserves are not relevant in that regard.

### II. Expense Allowances

Representatives of our committee have worked closely with Mr. C.F.B. Richardson and officers of LOMA and certain of their member companies on expense analysis. While we differ with Mr. Richardson on a number of technical points, we do agree with his conclusion that expense allowance factors of 125% of net premium plus 1% of the face amount reflect fairly the median expense levels of the companies studied. We wish to point out that the companies studied are ordinary companies with probable expense experience average or better than average in the industry. Expense allowances at this level do not accommodate higher expense companies or industrial companies. Thus, the philosophical question of whether high, low or medial expense levels are appropriate to minimum nonforfeiture expense allowances remains to be addressed.

After testing, we also support certain other conclusions or suggestions of Mr. Richardson's, as given below (some test results are given in Appendix II):

- (1) The use of a maximum premium for expense allowances analogous to the \$40 limit in the present law rarely has application and can be eliminated in the interest of simplicity.
- (2) Weighting expense allowances between plan premium and whole life premium does not significantly improve the fit with the expense allowances calculated by Richardson and similarly can be dispensed with on the grounds of simplification. The underlying cause of this result lies in Richardson's use of average size factors by plan which causes higher excess first year expenses to arise on high premium plans because of their lower average size. The use of the same percentage factor as whole life tends to duplicate this result (Appendix II).
- (3) The expense allowances calculated on the assumption of 3½% net premiums are also satisfactory for net premiums using interest rates as high as 6% (Appendix II).
- (4) The 1% factor in the expense allowance formula may be applied to the arithmetic average of the amounts in force during the first ten policy years (or the first ten years after an unscheduled amount change) instead of to the "equivalent uniform amounts" based on present values as in the current law. (Our Report recommended the ten year period be used instead of the life of the policy.)

### III. The Cost of Withdrawal

The following truism appears on page 11 of our Report: "... in the long run the costs of early terminations will be paid by continuing policyholders."

The 1941 NAIC Report took the position that the departing policyholder should theoretically leave the continuing policyholder in neither a better nor a worse position. Your committee suggested that new attitudes on the part of consumers called for reexamination of the question. Accordingly, many asset share tests were run by Mr. Baucum of the Provident Life and Accident to test the cost of withdrawal under different assumptions as to persistency and level of cash values as that is affected by expense allowances or interest rates underlying the cash values. The assumptions used were those furnished by you and are outlined in Appendix III. In addition, we performed tests using the maximum allowance in our Report (150% of net premiums plus \$20), the Richardson allowance of 125% plus \$10 and made tests that employed a 6% interest rate.

The technique employed first calculated a "natural premium" based on your assumptions plus a zero percent lapse rate. The resulting natural premiums represent the nonprofit premiums of a nonparticipating company, which employed your assumptions and either did not experience any voluntary terminations or else had a cash value scale equal at all points to their asset shares. If the assumptions were realistic and the company did not wish to make a profit, their premiums would represent the ideal of the 1941 Committee, affecting the cost of neither the continuing nor departing policyholder.

The assumptions are not realistic since there is no consideration for federal income tax, risk charges, profit or competitive considerations. By varying the assumptions, however, and comparing consistently derived profitless premiums, a comparison can be made with the natural premiums; the difference between them represents the "cost of withdrawal." Specimen costs are shown on the following table.

Specimen Costs of Withdrawal

Ordinary Life - 3½%

Lapse Scale	Expense Formula	Interest Rate	Issue Age			
			27	37	47	57
Moorhead S	1	3½%	.28	.39	.51	.66
	2	3½	.40	.56	.78	1.13
Moorhead T	1	3½	.50	.67	.90	1.23
	2	3½	.70	.97	1.36	2.02
Special	1	3½	.48	.68	.86	1.02
	2	3½	.73	1.05	1.44	1.99
Moorhead S	125% + \$10	6	.17	.16	.17	.29

Another way of characterizing this cost is to say that it is the level amount that must be paid each year by persisting policyholders to make up for the withdrawal values granted to terminating policyholders. If the cost is positive, the terminating policyholder received more than the asset share and conversely.

Without attempting to summarize the resulting masses of data in Appendix III, certain general statements are in order:

- (1) Cash values and persistency rates are interrelated; high early cash value plans, in particular, show high termination rates in the renewal years. To reflect this phenomenon, the committee added to your S&T scales a "special lapse" scale intended to be representative of high cash value plans.
- (2) The cost of withdrawal varies to a recognizable degree with expense allowances varying within the narrow range you furnished, but the cost varies more significantly between the maximum and minimum allowances given in our Report.
- (3) The cost of withdrawal varies greatly by lapse of assumption of cash values differ significantly from asset shares; while this is obvious, the extent of the difference may be surprising, particularly if the influence of cash values on lapses is recognized through the "special lapse" scale. (See table above)
- (4) The only way to minimize the cost of lapse is to employ cash value assumptions that reasonably reflect their asset share analogs. In our studies, a six percent nonforfeiture interest rate combined with Richardson's expense allowances came closest to eliminating the cost of withdrawal.
- (5) The committee made extensive calculations based on two recovery periods, (1) the life of the policy and (2) 20 years. We feel the 20 year recovery period is more realistic and promotes consistency by issue age. Hence, all the figures in this letter use the 20 year recovery period.

In summary, our committee returns to its basic premise that equity is best served by cash value factors that are closest to asset share assumptions. This implies realistic expense allowances, modern mortality and current interest rates, ranging as high as 6%. Finally, we emphasize that the cost of withdrawal will be paid for many years by the persisting policyholder, who may pay a high price for the option of dropping out early if realistic assumptions are not employed. In Appendix III we show an array of results employing the various assumptions outlined in the first pages of that appendix.

#### IV. Trivial Values and Term Exemptions

We previously prepared calculations to determine whether a trivial value test could be substituted for specific term exemptions, i.e. if no nonforfeiture values were required for a policy that never developed cash values exceeding, say, 3% of face amount or three net premiums when the standard formula was employed, would this eliminate the need to exempt certain term policies from nonforfeiture requirements? Mr. Leff in a document forwarded to you on June 6 concludes that term exemptions are still needed. Mr. John Aschenbrenner has performed further tests which confirm that conclusion and lead to certain others. In summary, we recommend:

- (1) Level term policies of less than 21 years duration expiring before age 71 be exempt from nonforfeiture requirements. These factors reflect changes in net premiums, asset shares and industry practice since the original law was drafted and are equivalent to the current exemption updated (see Leff memorandum referred to above).
- (2) Triviality exemptions may be based on either a percentage of face amount on the order of 2½% or a multiple of net levelized nonforfeiture premiums, such as three, with similar effect. The advantage of the former is simplicity of calculation but it has the drawback of eliminating values on certain juvenile plans. The multiple of premium test will more likely retain juvenile values but is more likely to eliminate values at older ages.
- (3) Policies with guaranteed cash, endowment or paid-up benefits should not be exempt from cash value requirements on either of the above bases as these, by their nature, require nonforfeiture benefits.
- (4) Joint life term policies should be exempt based on age 71 of the older life.

Decreasing term would be exempt in the same way as in the present law, through adjusted premium equivalency. The results of some of John's tests are given in Appendix IV.

#### V. Family Policies

The Standard Nonforfeiture Law should provide that for the purpose of calculating minimum nonforfeiture benefits on two-parent family plans where both parents are alive: (a) any term insurance benefits on the insured spouse shall be deemed a supplemental policy provision; and (b) for nonterm benefits for each primary insured's age, a unique set of minimum values will apply regardless of the age of the insured spouse, calculated on the assumption that the age of the insured spouse is equal to the age of the primary insured.

#### VI. Uniform Seniority

The Standard Nonforfeiture Law should specifically permit the use of the uniform seniority rule for joint life policies and should also specify the Table of Uniform Seniority.

#### VII. Curtate Versus Continuous Functions

Mr. Harold Leff's analysis leads to the conclusion that neither curtate nor continuous functions can be said to uniformly produce the lowest cash values for given expense allowances, but the curtate basis came close to that result. It is, therefore, recommended that either basis be permitted, at the company's option. To avoid duplicating the required minimum value tables it is suggested that these be on a curtate basis with the advice to regulators that continuous function values may, in a few cases, be slightly lower.

#### VIII. Basis for Age

The age basis for nonforfeiture values should be consistent with the age basis for gross premiums. Books of minimum values should be published on both an age nearest birthday and an age last birthday basis.

#### IX. Fractional Modes and Refund of Unearned Premium at Death

An analysis by Mr. Richard Fisher appears as Appendix V. While there is some potential difference in minimum values to reflect premium mode and the refund feature, it is slight and, recognizing that equity isn't achieved through cash values alone, it is recommended that a single set of minimum values apply in the interest of simplicity.

We were gratified to note that the first draft of a model bill being prepared in the ACLI was an excellent expression of the concepts in our Report and the subsequent studies. Our committee reviewed that report, and I believe it now incorporates all of the above conclusions.

John, this letter should cover all the outstanding questions raised from every quarter on our Report. While your task force was interested in our analysis of "horrible examples" they were to furnish us, those were never forthcoming and, in fact, we doubt such will be found. We draw some support for that belief from learning that no entries were submitted to "The Actuary's" Competition which offered prizes for "a product that either (a) requires grossly excessive minimum nonforfeiture values or (b) permits absurdly low values." If any examples do arise from your task force, I would be glad to discuss them with you.

Our committee is very pleased with the fact that draft legislation has emerged only a year after our draft Report was released to you. We hope that you will keep up the fine pace by introducing the Model Bill at the NAIC meeting in December.

I know I speak for the entire committee in saying it has been a pleasure to be of service in this important area.

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#### ATTACHMENT A, APPENDIX I

##### Linkage of Nonforfeiture Values With Valuation Reserves

The following commentary, after highlighting the strong linkage that currently exists between valuation reserves and nonforfeiture value requirements, discusses the origins of this relationship. It is concluded that this linkage is undesirable and should be severed.

Standard valuation and nonforfeiture laws tie closely together minimum required nonforfeiture values and policy valuation reserves on both a policy by policy basis and on an aggregate basis. The linkage is forceful in that the required relationships between mortality and interest assumptions and expense allowances cause the policy reserve generally to be not less than the minimum nonforfeiture value applicable to that contract. Typically, the minimum nonforfeiture value is the policy valuation reserve less the unamortized balance of an initial expense allowance. The valuation law also requires that aggregate reserves be not less than aggregate reserves calculated on the nonforfeiture mortality and interest basis.

The 1941 Report of the Committee to Study Nonforfeiture Benefits and Related Matters commissioned by the National Association of Insurance Commissioners stated clearly that this linkage should be broken. Among the conclusions in Chapter XI one finds:

There is no necessity for the requirement that valuation of policy reserves and determination of nonforfeiture benefits be made on the basis of the same mortality table and rate of interest. Such a requirement is unnecessarily awkward and does not necessarily promote equity. In the first instance solvency is principally involved while, in the second instance, the company-policyholder relations of equity are principally involved.

The first recommendation put forward states:

The elimination of the artificial relationship existing between the mortality and interest standards now specified for the valuation of policy reserve liabilities and the determination of nonforfeiture benefits. The same minimum nonforfeiture requirements should apply regardless of the basis or mode of valuation.

The concept of policy nonforfeiture values unfolded slowly over the decades, tracking the development of valuation reserves. Over time the valuation reserve came to represent prefunding of future liabilities out of policyholder premiums. When a policyholder came to terminate his policy in midstream, questions began to be asked as to why he should not have back the equity he had built up in his policy. Accordingly nonforfeiture values and valuation reserves became closely intertwined.

The run-on-the-bank fear has always existed and will continue to exist as a concern for those who occupy themselves with the solvency of an insurance company. Should every policyholder decide to quit, the insurer must be certain that there is sufficient money on hand to pay everyone off. As a consequence of this requirement, it is argued that aggregate valuation reserves should equal or exceed aggregate nonforfeiture values. While the need to be able to handle the drain must be taken into account, it has become evident that if a problem should arise, it would not be because valuation reserves do not at least equal outstanding nonforfeiture values; the problem would lie primarily on the asset side of the ledger where book asset values might not be realizable.

The Society of Actuaries Special Committee on Nonforfeiture Laws in its work adopted the position that the subjects of nonforfeiture values and valuation reserves are severable. It is consistent with the thinking of that committee that there is no reason for the minimum nonforfeiture value to recognize the policy valuation reserve. The only obligation that does exist is that the valuation process take into account, among other policy features, any guaranteed nonforfeiture benefits built into the policies being valued. The way in which that connection is handled will depend to a large extent upon the way in which thinking governing the valuation processes evolves. In particular it would appear that the concept that a policy valuation reserve should exceed the required nonforfeiture value will at best be only one factor to be considered in the valuation process.

Valuation and nonforfeiture processes reach out in different directions. Valuation should take into account futures -- future gross premiums and projected expense rates; otherwise looming insolvency might not be detected. The basic concept of a nonforfeiture value, however it may be constructed, carries with it a retrospective flavor. All regulatory thinking to date also states that in the development of nonforfeiture values the margin for profit and overall expense is to be ignored and that required nonforfeiture values should not be influenced by the level of the gross premium. This pair of contrasts cannot be reconciled with the connection between valuation reserves and nonforfeiture values contained in the current law.

Whereas nonforfeiture value requirements must of necessity relate to individual policies, future development of valuation theory and practice may well concern itself with the risks faced by a portfolio rather than by the individual policies of which the portfolio is made up. Should this development occur, with the concept of a valuation reserve for an individual policy becoming relatively unimportant, linkage between nonforfeiture values and valuation reserves could not even be forced.

If, as was recommended by the Society of Actuaries Special Committee, there is to be one and only one set of minimum values for any particular plan, the tying of valuation reserves to minimum nonforfeiture values will tend to depress valuation reserves toward that single minimum level. There is no logical or rational basis for this consequence; it merely demonstrates that the connection between the two does not possess the strength it was once thought to have.

It is important that the valuation process be made responsive to changes in experience occurring following issue. Nonforfeiture values, on the other hand, are to be established at issue by law and by current marketing practice. A prudent company may well change from time to time its valuation basis and the valuation reserves on a block of business already in force. Each time such a change occurs, the linkage appears less and less real. In a similar vein, the concept of actuarial certification encourages examination of the appropriateness of reserve bases from time to time following issue; a valuation process that is hamstrung by nonforfeiture requirements set at issue defeats the concept.

The approach that aggregate policy valuation reserves must be at least equal to aggregate nonforfeiture values is somewhat more in tune with the direction that valuation thinking is likely to take. Maintaining the relationship between nonforfeiture and valuation requirements on an aggregate basis focuses attention on the need to value portfolios rather than policies. To the extent that the relationship examined on an aggregate basis becomes one and only one of several valuation tests, the relationship between the two is useful.

In summary the close relationship that currently exists between valuation reserves and nonforfeiture values is contrary to the thinking underlying the two relevant standard laws. Examination of the implications of the relationship especially upon the valuation process suggests that maintenance of the relationship may have a retarding effect. Accordingly, it is recommended that nonforfeiture value requirements be established independently of valuation considerations, and that in the process of valuing policy liabilities existing guaranteed nonforfeiture values be only one element taken into consideration.

## ATTACHMENT A, APPENDIX II

## Participating Expense Allowances

			<u>0</u>	<u>20</u>	<u>35</u>	<u>50</u>
<u>Whole Life</u>						
A. 3½%	-	Derived	\$17.43	\$20.18	\$27.97	\$50.18
		125% + \$10	16.15	21.06	29.60	48.79
B. 4½%	-	Derived	15.13	17.83	25.09	46.84
		125% + \$10	14.78	18.93	26.93	45.81
C. 6%	-	Derived	13.81	15.66	22.05	43.19
		125% + \$10	13.42	16.69	23.79	42.04
<u>Life at 65</u>						
A. 3½%	-	Derived		21.54	32.52	66.60
		125% + \$10		21.80	32.45	65.15
		62.5% (Net + OL Net) + \$10		21.43	31.03	56.97
B. 4½%	-	Derived		19.22	29.94	60.35
		125% + \$10		19.36	28.85	58.80
		62.5% (Net + OL Net) + \$10		19.15	27.89	52.31
C. 6%	-	Derived		16.56	24.66	52.93
		125% + \$10		16.88	24.87	51.35
		62.5% (Net + OL Net) + \$10		16.79	24.33	46.70
<u>Endowment at 65</u>						
A. 3½%	-	Derived		25.71	38.05	76.77
		125% + \$10		24.71	38.69	83.29
		62.5% (Net + OL Net) + \$10		22.89	34.15	66.04
B. 4½%	-	Derived		23.24	34.61	73.17
		125% + \$10		21.97	35.08	78.75
		62.5% (Net + OL Net) + \$10		20.45	31.01	62.68
C. 6%	-	Derived		20.77	30.36	67.85
		125% + \$10		18.89	30.56	72.51
		62.5% (Net + OL Net) + \$10		17.79	27.18	57.28
<u>Term 65</u>						
A. 3½%	-	Derived		11.10	14.59	
		125% + \$10		16.07	20.16	

Derived allowances for 3½% basis from Richardson's letter of 7/15/76. 4½% and 6% allowances were derived from Richardson's data substituting gross premiums based on the following formulae:

O.L.	Gross = 110% Net + \$5
L @ 65	Gross = 122% Net + \$5
E @ 65	Gross = 112% Net + \$7

ATTACHMENT A, APPENDIX III

Assumptions Used in Calculating Second Set  
of Premiums to Produce No Profit

I. Plans

- A. OL - Ordinary Life
- B. L65 - Life Paid Up at 65
- C. T65 - Term to 65
- D. E65 - Endowment at 65

II. Cash Values

- A. 1958 CSO male mortality
- B. Four formulae for excess of first year over renewal expenses

Formula	When net premium for plan exceeds that for ordinary life.	When net premium for plan is equal to or less than that for ordinary life.
1.	\$5 per \$1,000, plus 65% net premium for plan, plus 60% net premium for ordinary life.	\$5 per \$1,000, plus 125% net premium for plan.
2.	\$5 per \$1,000, plus 40% net premium for plan, plus 40% net premium for ordinary life.	\$5 per \$1,000 plus 80% net premium for plan.
3.	\$10 per \$1,000 plus 50% net premium for plan, plus 50% net premium for ordinary life.	\$10 per \$1,000, plus 100% net premium for plan.
4.	\$20 per \$1,000, plus 75% net premium for plan, plus 75% net premium for ordinary life.	\$20 per \$1,000, plus 150% net premium for plan.

Note: In applying the percentages specified in the various test scales above no net premium was deemed to exceed five percent of the amount of insurance. Also, Formula 4 was used only with OL.

C. Two interest rates

- 1. 3½%
- 2. 4½% - Used only in conjunction with male mortality asset share assumption and Moorhead lapse scales (See IIIB and IIIC below)

III. Asset Shares

A. Expenses

- 1. First year - Formula I (see IIB above) plus renewal expenses
- 2. Renewal years
  - a. \$8 per policy (to maturity)
  - b. Per premium
    - (1) Taxes - 2 & 3/4% of premium
    - (2) Commissions
      - (a) 7½% of premium through year ten
      - (b) 2½% of premium thereafter

B. Mortality

- 1. 1965-70 Basic Select Male Table with no margins
- 2. 1965-70 Basic Select Female Table with no margins

## B. Mortality

1. 1965-70 Basic Select Male Table with no margins
2. 1965-70 Basic Select Female Table with no margins

## C. Lapses\*

1. Moorhead Scale S
2. Moorhead Scale T
3. Special Lapse Scale (as follows):

Duration:            1  2  3  4  5  6  7  8  9 and thereafter  
 Lapse Rate (%): 12.5 10 10 10 9 8 7 6 5

\*Moorhead Scale T and the Special Lapse Scale used only with male mortality asset share assumption (see IIIB above). Also, lapse rate for duration 20 is 100%.

## D. Interest

1. 6% through year 10
2. 5% through year 15
3. 4% thereafter

## E. Average size

1. OL - \$20,000
2. L65 - \$20,000
3. T65 - \$40,000
4. E65 - \$15,000

## F. Maturity

All contracts mature for cash value at duration 20 (or normal maturity date if earlier)

## IV. Summary of Asset Share Calculations

## A. OL

1. 1965-70 Basic Select Male Table
  - a. Three lapse scales -- Moorhead Scales S and T, Special Lapse Scale
  - b. Seven cash value scales -- Formulae 1, 2, 3, 4; 3½% and 4½% interest
  - c. Four issue ages -- 27, 37, 47, 57

Note: The above assumptions were combined to produce 72 asset shares.

2. 1965-70 Basic Select Female Table
  - a. One lapse scale -- Moorhead Scale S
  - b. Three cash value scales -- Formulae 1, 2 and 3; 3½% interest
  - c. Four issue ages -- 27, 37, 47, 57

Note: The above assumptions were combined to produce 12 asset shares.

## B. L65

## 1. 1965-70 Basic Select Male Table

- a. Two lapse scales -- Moorhead Scales S and T
- b. Six cash value scales -- Formulae 1, 2, 3; 3½% and 4½% interest
- c. Four issue ages -- 27, 37, 47, 52

Note: The above assumptions were combined to produce 48 asset shares.

## 2. 1965-70 Basic Select Female Table

- a. One lapse scale -- Moorhead Scale S
- b. Three cash value scales -- Formulae 1, 2, 3; 3½% interest
- c. Four issue ages -- 27, 37, 47, 52

Note: The above assumptions were combined to produce 12 asset shares.

## C. T65

## 1. 1965-70 Basic Select Male Table

- a. Two lapse scales -- Moorhead Scales S and T
- b. Six cash value scales -- Formulae 1, 2, 3; 3½% and 4½% interest
- c. Four issue ages -- 27, 37, 47, 52

Note: The above assumptions were combined to produce 48 asset shares.

## 2. 1965-70 Basic Select Female Table

- a. One lapse scale -- Moorhead Scale S
- b. Three cash value scales -- Formulae 1, 2, 3; 3½% interest
- c. Four issue ages -- 27, 37, 47, 52

Note: The above assumptions were combined to produce 12 asset shares.

## D. E65

## 1. 1965-70 Basic Select Male Table

- a. Two lapse scales -- Moorhead Scales S and T
- b. Six cash value scales -- Formulae 1, 2, 3; 3½% and 4½% interest
- c. Four issue ages -- 27, 37, 47, 52

Note: The above assumptions were combined to produce 48 asset shares.

## 2. 1965-70 Basic Select Female Table

- a. One lapse scale -- Moorhead Scale S
- b. Three cash value scales -- Formulae 1, 2, 3; 3½% interest
- c. Four issue ages -- 27, 37, 47, 52

Note: The above assumptions were combined to produce 12 asset shares.

## PREMIUMS TO PRODUCE NO PROFIT PER \$1,000 OF INSURANCE

Plan: OL

Mortality: 1965-70 Basic Select Male

<u>Lapse Scale</u>	Cash Value Basis:		Issue Age:			
	<u>Expense Formula</u>	<u>Interest Rate (%)</u>	<u>27</u>	<u>37</u>	<u>47</u>	<u>57</u>
Moorhead S	1	3½	\$11.11	\$16.49	\$25.00	\$37.66
Moorhead S	2	3½	11.34	16.80	25.45	38.31
Moorhead S	3	3½	11.02	16.45	25.05	37.84
Moorhead S	4	3½	10.47	15.80	24.32	37.01
Moorhead S	1	4½	9.79	15.15	23.78	36.63
Moorhead S	2	4½	9.97	15.44	24.20	37.25
Moorhead S	3	4½	9.68	15.09	23.81	36.80
Moorhead T	1	3½	11.33	16.77	25.39	38.23
Moorhead T	2	3½	11.64	17.21	26.03	39.20
Moorhead T	3	3½	11.22	16.72	25.47	38.51
Moorhead T	4	3½	10.63	15.97	24.56	37.46
Moorhead T	1	4½	9.95	15.35	24.06	37.06
Moorhead T	2	4½	10.19	15.74	24.65	37.98
Moorhead T	3	4½	9.83	15.26	24.10	37.31
Special	1	3½	11.31	16.78	25.35	38.02
Special	2	3½	11.67	17.29	26.11	39.17
Special	3	3½	11.16	16.71	25.44	38.35
Special	4	3½	10.29	15.63	24.15	37.76

Mortality: 1965-70 Basic Select Female

<u>Lapse Scale</u>	Cash Value Basis:		Issue Age:			
	<u>Expense Formula</u>	<u>Interest Rate (%)</u>	<u>27</u>	<u>37</u>	<u>47</u>	<u>57</u>
Moorhead S	1	3½	\$10.86	\$15.61	\$21.76	\$30.62
Moorhead S	2	3½	11.09	15.93	22.22	31.29
Moorhead S	3	3½	10.77	15.57	21.81	30.81

PREMIUMS TO PRODUCE NO PROFIT PER \$1,000 OF INSURANCE

Plan: L65

Mortality: 1965-70 Basic Select Male

<u>Lapse Scale</u>	<u>Cash Value Basis:</u>		<u>Issue Age:</u>			
	<u>Expense Formula</u>	<u>Interest Rate (%)</u>	<u>27</u>	<u>37</u>	<u>47</u>	<u>52</u>
Moorhead S	1	3½	\$12.25	\$19.47	\$34.50	\$49.67
Moorhead S	2	3½	12.48	19.76	34.86	50.24
Moorhead S	3	3½	12.16	19.45	34.57	49.81
Moorhead S	1	4½	10.55	17.43	31.89	46.57
Moorhead S	2	4½	10.74	17.68	32.18	47.05
Moorhead S	3	4½	10.46	17.38	31.93	46.68
Moorhead T	1	3½	12.47	19.76	34.92	50.32
Moorhead T	2	3½	12.78	20.18	35.53	51.33
Moorhead T	3	3½	12.35	19.73	35.03	50.55
Moorhead T	1	4½	10.70	17.61	32.12	46.89
Moorhead T	2	4½	10.95	17.97	32.61	47.73
Moorhead T	3	4½	10.59	17.54	32.19	47.08

Mortality: 1965-70 Basic Select Female

<u>Lapse Scale</u>	<u>Cash Value Basis:</u>		<u>Issue Age:</u>			
	<u>Expense Formula</u>	<u>Interest Rate (%)</u>	<u>27</u>	<u>37</u>	<u>47</u>	<u>52</u>
Moorhead S	1	3½	\$12.01	\$18.66	\$31.81	\$45.83
Moorhead S	2	3½	12.23	18.95	32.16	46.39
Moorhead S	3	3½	11.92	18.64	31.88	45.96

## PREMIUMS TO PRODUCE NO PROFIT PER \$1,000 OF INSURANCE

Plan: T65

Mortality: 1965-70 Basic Select Male

Lapse Scale	Cash Value Basis:		Issue Age:			
	Expense Formula	Interest Rate (%)	27	37	47	52
Moorhead S	1	3½	\$ 5.64	\$ 8.06	\$11.49	\$13.59
Moorhead S	2	3½	5.73	8.17	11.58	13.67
Moorhead S	3	3½	5.54	7.99	11.47	13.58
Moorhead S	1	4½	5.39	7.92	11.41	13.51
Moorhead S	2	4½	5.47	8.02	11.49	13.59
Moorhead S	3	4½	5.28	7.84	11.38	13.50
Moorhead T	1	3½	5.85	8.30	11.85	14.09
Moorhead T	2	3½	5.95	8.44	11.96	14.20
Moorhead T	3	3½	5.74	8.22	11.82	14.08
Moorhead T	1	4½	5.58	8.13	11.75	14.00
Moorhead T	2	4½	5.67	8.25	11.85	14.10
Moorhead T	3	4½	5.46	8.04	11.71	13.99

Mortality: 1965-70 Basic Select Female

Lapse Scale	Cash Value Basis:		Issue Age:			
	Expense Formula	Interest Rate (%)	27	37	47	52
Moorhead S	1	3½	\$ 5.36	\$ 7.03	\$ 7.86	\$ 9.71
Moorhead S	2	3½	5.45	7.14	7.94	9.79
Moorhead S	3	3½	5.26	6.96	7.83	9.70

PREMIUMS TO PRODUCE NO PROFIT PER \$1,000 OF INSURANCE

Plan: E65

Mortality: 1965-70 Basic Select Male

Lapse Scale	Cash Value Basis:		Issue Age:			
	Expense Formula	Interest Rate (%)	27	37	47	52
Moorhead S	1	3½	\$15.69	\$25.36	\$46.66	\$69.17
Moorhead S	2	3½	15.95	25.73	47.21	69.97
Moorhead S	3	3½	15.62	25.38	46.77	69.41
Moorhead S	1	4½	14.10	23.94	45.81	68.55
Moorhead S	2	4½	14.32	24.25	46.31	69.33
Moorhead S	3	4½	14.00	23.93	45.90	68.78
Moorhead T	1	3½	15.92	25.66	47.05	69.51
Moorhead T	2	3½	16.27	26.21	48.02	70.97
Moorhead T	3	3½	15.82	25.68	47.23	69.96
Moorhead T	1	4½	14.23	24.08	45.96	68.65
Moorhead T	2	4½	14.53	24.55	46.84	70.08
Moorhead T	3	4½	14.10	24.07	46.11	69.07

Mortality: 1965-70 Basic Select Female

Lapse Scale	Cash Value Basis:		Issue Age:			
	Expense Formula	Interest Rate (%)	27	37	47	52
Moorhead S	1	3½	\$15.46	\$24.67	\$44.87	\$67.35
Moorhead S	2	3½	15.72	25.04	45.41	68.14
Moorhead S	3	3½	15.39	24.69	44.97	67.59

ATTACHMENT A, APPENDIX IV

Plan	Level Term							Number of Durations Where Formula Cash Value is Greater than X% of Face Amount					
	Issue Age	x = 0	.5	1	1.5	2	2.5	3	4	5	6	7	Max %
20 Year Term	0	0											0.00
20 Year Term	5	0											0.00
20 Year Term	10	0											0.00
20 Year Term	15	0											0.00
20 Year Term	20	0											0.00
20 Year Term	25	6	0										0.14
20 Year Term	30	11	3	0									0.53
20 Year Term	35	14	10	5	0								1.20
20 Year Term	40	15	14	11	9	4	0						2.20
20 Year Term	45	16	15	15	13	12	10	7	0				3.83
20 Year Term	50	17	16	16	15	15	13	12	10	9	5	0	6.76
15 Year Term	55	12	11	11	10	8	8	6	3	0			4.31
10 Year Term	60	6	6	4	2	0							1.66
5 Year Term	65	0											0.00

Values based on:

- i. 4½% interest
- ii. Modern CSO from Appendix H of Report
- iii. Test formula defined on page 28 of Report

## Level Term

## Effect of Various Triviality Tests

<u>Issue Age</u>	<u>Plan Length (Years)</u>	<u>1% Test</u>	<u>2% Test</u>	<u>2½% Test</u>	<u>3% Test</u>	<u>4% Test</u>
0	40	E	E	E	E	E
5	40	E	E	E	E	E
10	30	E	E	E	E	E
	40	CV	E	E	E	E
15	30	E	E	E	E	E
	40	CV	CV	CV	E	E
20	30	E	E	E	E	E
	40	CV	CV	CV	CV	CV
25	20	E	E	E	E	E
	30	CV	CV	E	E	E
30	20	E	E	E	E	E
	30	CV	CV	CV	CV	E
35	15	E	E	E	E	E
	20	CV	E	E	E	E
	30	CV	CV	CV	CV	CV
40	15	E	E	E	E	E
	20	CV	CV	E	E	E
45	10	E	E	E	E	E
	15	CV	E	E	E	E
	20	CV	CV	CV	CV	E
50	10	E	E	E	E	E
	15	CV	CV	E	E	E
	20	CV	CV	CV	CV	CV
55	10	E	E	E	E	E
	15	CV	CV	CV	CV	CV
60	5	E	E	E	E	E
	10	CV	E	E	E	E
65	5	E	E	E	E	E
	10	CV	CV	E	E	E

E = Exempt from Cash Values under specified triviality test

CV = Cash Values required under specified triviality test

Values based on:

- i. 4½% interest
- ii. Modern CSO from Appendix H of Report
- iii. Test formula defined on page 28 of Report

APPENDIX V

To: Mr. J. F. Reisytl

From: Richard F. Fisher

Date: September 17, 1976

Re: Nonforfeiture Law - Some Technical Items

You have asked me to consider what effect, if any, the following items should have on minimum nonforfeiture benefits:

1. Refund of unearned premiums at death.
2. Fractional modes.

Minimum cash values under both the current law and the proposed law are computed using the adjusted premium method and curtate assumptions. Thus,

$$tCV_x = Ax+t - P_x^A \cdot \ddot{a}_{x+t}$$

$$\text{where } P_x^A = P_x + \frac{E'}{\ddot{a}_x}$$

Assuming the expense allowance is not affected by the refund feature or the premium mode, the formulas become:

$$P_x^{\{m\}A} = P_x^{\{m\}} + \frac{E'}{\ddot{a}_x^{(m)}} \quad \text{for the refund feature}$$

$$\text{and } P_x^{(m)A} = P_x^{(m)} + \frac{E'}{\ddot{a}_x^{(m)}} \quad \text{for true fractional premiums}$$

$$\text{Then, } tCV_x^{\{m\}} = Ax+t \left[ 1 + \frac{1}{2m} P_x^{\{m\}} \right] - P_x^{\{m\}A} \cdot \ddot{a}_{x+t}^{(m)}$$

$$\text{and } tCV_x^{(m)} = Ax+t - P_x^{(m)A} \cdot \ddot{a}_{x+t}^{(m)}$$

Unfortunately, one can't get simple expressions for  $tCV_x^{\{m\}}$  and  $tCV_x^{(m)}$  in terms of  $tCV_x$  like he can with  $tV_x^{\{m\}}$ ,  $tV_x^{(m)}$ , and  $tV_x$ . In fact, one can't even get a simple expression for  $P_x^{\{m\}A}$  and  $P_x^{(m)A}$  in terms of  $P_x^A$ . Observe:

$$\begin{aligned} P_x^{\{m\}A} &= P_x^{\{m\}} + \frac{E'}{\ddot{a}_x^{(m)}} \\ &= P_x + \frac{m-1}{2m} \cdot P_x^{\{m\}} \cdot d + \frac{1}{2} \cdot P_x^{\{m\}} \cdot P_x + \frac{P'}{\ddot{a}_x} - \frac{\frac{m-1}{2m}}{\ddot{a}_x \cdot \ddot{a}_x^{(m)}} \\ &= P_x^A + \frac{m-1}{2m} \cdot P_x^{\{m\}} \cdot d + \frac{1}{2} \cdot P_x^{\{m\}} \cdot P_x - \frac{m-1}{2m} \left( \frac{1}{\ddot{a}_x \cdot \ddot{a}_x^{(m)}} \right) \end{aligned}$$

Since  $P_x^{\{m\}}$  and  $p_x^{(m)}$  are larger than  $P_x$  and  $\ddot{a}_x^{(m)}$  is larger than  $\frac{E^1}{a_x}$ ,  $P_x^{\{m\}}A$  and  $P_x^{(m)}A$  are larger than  $P_xA$ . Therefore,  $t_{CV_x}^{\{m\}}$  and  $t_{CV_x}^{(m)}$  are larger than  $c_{CV_x}$ . This makes sense because larger adjusted premiums and cash values are needed for the loss of adjusted premium in the year of death.

This means that if the refund feature or fractional modes are ignored and  $t_{CV_x}^{CV}$  used for plans with these features, the minimum cash value will be too low resulting in lack of equity for the terminating policyholder.

However, the difference between  $t_{CV_x}^{\{m\}}$  and  $t_{CV_x}^{CV}$  and the difference between  $t_{CV_x}^{(m)}$  and  $t_{CV_x}^{CV}$  are undoubtedly slight. If they were to be recognized, many more tables would have to be developed and cash values checked to see if the law was being complied with.

Policyholders paying with different frequencies would get different cash values if the minimums were used and they would wonder why.

Furthermore, all one has to do is lower  $E^1$  or  $i$  or  $q$  to raise  $t_{CV_x}^{CV}$  to an adequate level (although that would result in too large of a cash value on policies without the refund or fractional mode feature resulting in lack of equity for continuing policyholders).

In conclusion, minimum cash values should theoretically be slightly larger for these plans but practical considerations dictate that one uses the same minimum cash values as for the curtate case. One can always assume that the refund feature and loss of premiums in year of death for fractional modes are benefits loaded for in the gross premium formula and not in the net premium.

\*\*\*\*\*

## ATTACHMENT B

## Recommended Changes in Standard Nonforfeiture Law

[References to the "Council" mean the Council Actuarial Committee and to the "NAIC" mean the NAIC Technical Subcommittee on Valuation and Nonforfeiture Value Regulations.]

1. **Recommendation.** Retain Adjusted Premium Method. **Reason.** It has worked reasonably well. **Arguments and Positions.** Society of Actuaries Committee notes that other methods might regulate profit levels. NAIC agrees but notes the possibility that some future criticism of the system might require reexamination of the results of using a gross premium accumulation system or the British system of nondefined values. Currently, the NAIC feels there is a need to discuss why there should or should not be a relationship between valuation and nonforfeiture value regulation. Council agrees with Society of Actuaries Committee. **Change Law Section.** No change needed.
2. **Recommendation.** Base adjusted premium on expense allowances related to nonforfeiture net premium. **Reason.** To remove circularity and complexity from formula, especially in the case of nonlevel premium policies. **Arguments and Positions.** Society of Actuaries Committee points out that this approach simplifies most calculations but cuts initial expense allowance by 2% to 4% and seems to restore link between reserves and nonforfeiture values. Council feels "net premium" should be defined as based on nonforfeiture value assumptions without provision for excess initial expense allowance. **Change Law Section.** Section 5-c.
3. **Recommendation.** Decrease the per \$1000 component and increase the percent of premium component of the excess initial expense allowance. **Reason.** To reflect change in relative expense levels. **Arguments and Positions.** NAIC and Society of Actuaries Committee are studying expense levels and seeking agreement. Council Actuarial Committee feels possibly an increased per \$1000 component needed since select mortality gains at younger ages are small as compared to underwriting costs on lower average size policies. **Change Law Section.** Section 5-c.
4. **Recommendation.** Effect of inflation on excess initial expense allowances does not appear substantial. **Reason.** Average size policy is increasing. **Arguments and Positions.** Society of Actuaries Committee believes only "double digit" inflation would have an effect and feels anticipation of this might overstate excess initial expense allowances. Council believes conclusion on this item will emerge from study of item 3. NAIC has verified this conclusion by further study. **Change Law Section.** No change needed.
5. **Recommendation.** Base equivalent level amounts on the first ten years under the policy. **Reason.** Initial per \$1000 underwriting expenses are most logically related to amounts of insurance in the early years. This formula is less susceptible to manipulation. **Arguments and Positions.** Agreement by the NAIC and Council. **Change Law Section.** Section 5-c.
6. **Recommendation.** Base excess initial expense allowances on levelized net premiums rather than first year adjusted premium. **Reason.** To produce identical excess initial expense allowances for policies with identical benefits and identical premium paying periods. **Arguments and Positions.** NAIC recognizes the need for special treatment of unusual products both good and bad. NAIC feels further testing of such products is needed with provision for approval or disapproval under some other section of the law such as the Fair Trade Act and disclosure legislation. **Change Law Section.** Section 5-c.
7. **Recommendation.** Remove per policy costs from gross premiums in determining nonforfeiture value net premiums. **Reason.** To avoid requiring slightly different nonforfeiture values for each size policy where premiums are not level by duration. **Arguments and Positions.** NAIC agreed after reviewing effect of removing the per policy expense component from the adjusted premium formula. **Change Law Section.** Section 5-c.
8. **Recommendation.** Basic excess initial expense allowance on the automatic track for multi-track policies. Allow for additional initial expense allowance on increase in premium at point of increase. **Reason.** It would be unfair to force all companies into lowest possible expense posture to control a limited number of abuses. At time of premium increase there are additional sales and underwriting expenses. **Arguments and Positions.** NAIC will test examples of multi-track policies using conclusions 5 and 6. **Change Law Section.** Section 5-c.
- 9A. **Recommendation.** Base excess initial expense allowance for life-cycle and open policies on similar approach to that used for multi-track policies with additional allowances on increases. **Reason.** See 8 above. **Arguments and Positions.** NAIC notes that individual policy pension trust and key man insurance are other kinds of policies to be considered in the open category. **Change Law Section.** Section 5-c.

- 9B. Recommendation. Do not use retrospective accumulation of gross premiums. Give broad regulatory freedom to approve completely "open" and undefined policies. Reason. Avoids rate regulation and inconsistencies with adjusted premium approach. There is need to allow freedom for experimentation with new products. Arguments and Positions. Council Actuarial Committee concerned over broad discretion recommended for regulators and wants it limited to approval of experimental designs provided their nonforfeiture values are not inconsistent with principles of existing nonforfeiture law. Even this restricted regulatory discretion was felt by some regulators to go beyond what their statutes would permit. Change Law Section. Section 6.
10. Recommendation. Establish national review body to facilitate approval of complex policies and promote flexibility of product design. Reason. To provide the technical expertise which many states lack in reviewing new or unique contracts. Arguments and Positions. NAIC Committee suggests that it may serve as such a technical review body and act on questions forwarded by the NAIC Central Office. Council Actuarial Committee expressed agreement on review body but felt it would be politically difficult to implement. Change Law Section. Section 6.
11. Recommendation. 4½% interest rate is tested. Reason. To show effect of 1% variation in interest on nonforfeiture values. Arguments and Positions. NAIC and Council recommend 5½% nonforfeiture interest rate for life insurance. Change Law Section. Section 5-c.
12. Recommendation. Test values calculated on basis of "modernized" mortality table. Reason. To show effect on nonforfeiture values of more modern table. Arguments and Positions. NAIC has asked Society of Actuaries to prepare a new standard ordinary mortality table. Council has also agreed to ask Society of Actuaries to prepare a new mortality table. Change Law Section. Section 5-c.
13. Recommendation. Mortality table should include margins. Reason. Tendency toward lower premium forms may produce higher mortality in the future; individual company business varies from the average of the study; margins are needed to provide expenses on paid-up insurance benefits. Arguments and Positions. Some NAIC committee members feel expenses on paid-up policies should not be considered in setting margins. NAIC feels considerations given in 1950's for margins may no longer be valid. Council Actuarial Committee feels margins make little difference, but since they are needed in valuation mortality table, the same table should be used for both nonforfeiture and valuation. Change Law Section. No change needed.
14. Recommendation. A six-year age setback would reasonably approximate separate tables for males and females for determining Whole Life cash values. Reason. Simplicity in nonforfeiture calculations. Arguments and Positions. NAIC favors separate mortality tables by sex to avoid need for deficiency reserves. Council favors separate mortality tables for males and females. Change Law Section. Section 5-c.
15. Recommendation. Permit other alternatives in determining nonforfeiture values on substandard policies. Reason. There is need to permit other innovative treatment of substandard risk (e.g., graded death benefits). Arguments and Positions. NAIC would require same minimum nonforfeiture values for substandard and says substandard mortality is solely a valuation problem. Council Actuarial Committee favors more flexibility for substandard policies. Change Law Section. Section 5-c.
16. Recommendation. Policies that never give rise to nonforfeiture values in excess of 3% or 4% of the death benefit at any duration should be exempted. Reason. It is unwieldy and uneconomical to provide trivial nonforfeiture values. Arguments and Positions. NAIC proposes alternative criterion for triviality of values not exceeding two or three times the net level premium. Council agrees with Society of Actuaries Committee recommendations. Change Law Section. Section 8.
17. Recommendation. Extend term insurance exemption from nonforfeiture values to term of 20 years or less expiring before age 71. Reason. Reduces nonforfeiture value inconsistencies between exempt term plans and longer duration term plans. Arguments and Positions. NAIC reserves conclusion on term plans until tests of triviality can be made to determine which plans should be exempt. Council agrees with recommendation. Change Law Section. Section 8.
18. Recommendation. Term riders should be treated as separate policies under a severability principle. Reason. The present law impedes utilization of supplemental term riders because it unnecessarily complicates nonforfeiture value calculation. Arguments and Positions. NAIC and Council agree with recommendation. Change Law Section. Section 3.

19. Recommendation. Treat renewable and convertible term policies as a series of short-term policies for nonforfeiture purposes. Decide this on nature of the coverage. Reason. Not to take this view is contrary to nature of the coverage and requires cash values on term insurance. Arguments and Positions. NAIC agrees this is valid for nonforfeiture value regulation but not for valuation, particularly where deficiency reserves involved. Council agrees with recommendation. Change Law Section. No change needed.
20. Recommendation. Treat deposit of deposit term and deposit whole life as an integral part of the plan. Reason. To ensure that nonforfeiture values equitably reflect the value of the deposit. Arguments and Positions. NAIC agrees but notes further work needs to be done where deposit on whole life is carried as forborne accumulation. Council agrees that each contract should be treated on basis of coverage provided. Change Law Section. Section 5-c.
21. Recommendation. Use a single interest rate for statutory minimum cash values. Reason. To eliminate linkage with the valuation and policy cash value interest rates. Arguments and Positions. NAIC agrees, Council agrees. Change Law Section. Sections 5-c and Section 6 of the Standard Valuation Law.
22. Recommendation. Guaranteed paid-up options should be those purchased by cash value on any interest rate at least as high as that specified in the contract for cash values. Reason. To maintain parity between paid-up options before and after lapse but permit companies to offer more liberal paid-up options. Arguments and Positions. NAIC agrees. Council agrees. Change Law Section. Section 5-c.
23. Recommendation. The cash value mortality table should be used for determining guaranteed paid-up values, except that extended term should employ higher mortality. Reason. Extended term mortality is poorer than paid-up mortality. Arguments and Positions. NAIC agrees. Council agrees. Change Law Section. Section 5-c.
24. Recommendation. Specific expense loadings in paid-up option guarantees are not recommended. Reason. Since expense allowances for options which may come into effect many years in the future are imprecise, it is more practical to allow for paid-up expenses through mortality and interest margins. Arguments and Positions. NAIC agrees. Council agrees. Change Law Section. No change needed.
25. Recommendations. Substitute purchase bases granting larger than guaranteed amounts should be permitted for nonforfeiture insurance options and paid-up dividend additions. Reason. To allow companies to offer more liberal nonparticipating nonforfeiture insurance options and paid-up dividend additions than those guaranteed in the policy. Arguments and Positions. NAIC agrees with the restriction that cash values under the larger than guaranteed amounts should not exceed cash values under the guaranteed amounts. However, such values could be less than those under the guaranteed amounts. Council agrees with Society of Actuaries Committee. Change Law Section. Section 2(a), Section 5-c.
26. Recommendation. Complete exposition of nonforfeiture values in a policy table should not be required for multi-track or "open" plans. Reason. To avoid showing tables of values which will quickly become obsolete and meaningless to the policyholder. Arguments and Positions. NAIC advocates showing an initial set of nonforfeiture values along with explanation of various options available. Further disclosure should be made upon selection of an option. Council agrees with Society of Actuaries Committee. Change Law Section. Section 2(e).
27. Recommendation. Single premium life minimum cash values should be based on higher interest rates than annual premium policies. Reason. Nonforfeiture values higher than experience gross premium for single premium life insurance have inhibited sales of this product. Arguments and Positions. NAIC agrees. Council supports 7½% interest rate for nonforfeiture values. Change Law Section. Section 5-c.
28. Recommendation. Deferred annuities should be subject to minimum cash value requirements based on an accumulation of premiums after exclusion. Reason. Nonforfeiture values are appropriate during deferred period and the accumulation method is better understood by the public. Arguments and Positions. NAIC working on model legislation. Council has presented model annuity nonforfeiture legislation to the NAIC. Change Law Section. Exposure Draft Individual Annuity Standard Nonforfeiture Law.
29. Recommendation. Nonforfeiture values should not be required in accident and health insurance with the possible exception of return of premium contracts. Reason. Except for return of premium policies, health insurance is like term life insurance in that it generally would produce only trivial nonforfeiture values. Arguments and Positions. NAIC is considering what nonforfeiture values should be required for accident and health insurance. Council agrees with recommendation but feels drafting of legislation should be left to HIAA. Change Law Section. No change needed.

30. Recommendation. Technical matters needing further consideration are refund of unearned premiums at death, fractional modes, age nearest and last birthday bases, family policies, uniform seniority rule and removal of requirement for complex or confusing policy provisions relating to cash values. Reason. To clarify and simplify calculation of minimum nonforfeiture values. Arguments and Positions. NAIC advocates showing complex and technical information in a separate policy section entitled "Information for Insurance Department Regulation," or limiting information to a statement that minimum nonforfeiture values were used if such is the case and minimum nonforfeiture values are readily available to regulators. Council feels further exploration of technical issues by the Society of Actuaries Committee is needed. Change Law Section. Section 3 and Section 7.

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ATTACHMENT C

American Council of Life Insurance  
Proposed Revisions in the NAIC Standard Nonforfeiture Law  
Draft  
September 30, 1976  
(Underlining indicates additions. Brackets indicate deletions.)

1. This Act shall be known as the Standard Nonforfeiture Law.
2. In the case of policies issued on and after the operative date of this Act as defined in section nine [eight], no policy of life insurance, except as stated in section eight [seven], shall be delivered or issued for delivery [or delivered] in this state unless it shall contain in substance the following provisions, or corresponding provisions which in the opinion of the commissioner are at least as favorable to the defaulting or surrendering policyholder:
  - (a) That, in the event of default in any premium payment, the company will grant, upon proper request not later than sixty days after the due date of the premium in default, a guaranteed paid-up nonforfeiture benefit on a plan stipulated in the policy, effective as of such due date, of such value as may be hereinafter specified. In lieu of any guaranteed paid-up nonforfeiture benefit, the company may substitute an actuarially equivalent paid-up nonforfeiture benefit which provides a greater death benefit or longer period of death benefit.
  - (b) That, upon surrender of the policy within sixty days after the due date of any premium payment in default after premiums have been paid for at least three full years in the case of ordinary insurance or five full years in the case of industrial insurance, the company will pay, in lieu of any paid-up nonforfeiture benefit, a cash surrender value of such amount as may be hereinafter specified.
  - (c) That a specified paid-up nonforfeiture benefit shall become effective as specified in the policy unless the person entitled to make such election elects another option not later than sixty days after the due date of the premium in default.
  - (d) That if the policy shall have become paid-up by completion of all premium payments or if it is continued under any paid-up nonforfeiture benefit which became effective on or after the third policy anniversary in the case of Ordinary insurance or the fifth policy anniversary in the case of Industrial insurance, the company will pay, upon surrender of the policy within thirty days after any policy anniversary, a cash surrender value of such amount as may be hereinafter specified.
  - (e) A statement of the mortality table, [and] interest rate, and method used in calculating the cash surrender values and the paid-up nonforfeiture benefits available under the policy, or, in lieu thereof, [together with] a table showing the cash surrender value, if any, and paid-up nonforfeiture benefit, if any, available under the policy on each policy anniversary either during the first twenty policy years or during the term of the policy, whichever is shorter, such values and benefits to be calculated upon the assumption that there are no dividends or paid-up additions credited to the policy and that there is no indebtedness to the company on the policy together with a statement that a table of such cash surrender values, if any, and paid-up nonforfeiture benefits available on each subsequent policy anniversary will be furnished to the policyholder on request.

- (f) A statement that the cash surrender values and paid-up nonforfeiture benefits available under the policy are not less than the minimum values and benefits required by or pursuant to the insurance law of the state in which the policy is delivered; an explanation of the manner in which the cash surrender values and the paid-up nonforfeiture benefits are altered by the existence of any paid-up additions credited to the policy or any indebtedness to the company on the policy; if a detailed statement of the method of computation of the values and benefits shown in the policy is not stated therein, a statement that such method of computation has been filed with the insurance supervisory official of the state in which the policy is delivered; and a statement of the method to be used in calculating the cash surrender value and paid-up nonforfeiture benefit available under the policy on any policy anniversary beyond the last anniversary for which such values and benefits are consecutively shown in the policy.

Any of the foregoing provisions or portions thereof not applicable by reason of the plan of insurance may, to the extent inapplicable, be omitted from the policy.

The company shall reserve the right to defer the payment of any cash surrender value for a period of six months after demand therefor with surrender of the policy.

3. Any cash surrender value available under the policy in the event of default in a premium payment due on any policy anniversary, whether or not required by section two, shall be an amount not less than the excess, if any, of the present value, on such anniversary, of the future guaranteed benefits which would have been provided for by the policy, including any existing paid-up additions, if there had been no default, over the sum of (a) the then present value of the adjusted premiums as defined in sections five, five-a, [and] five-b and five-c, corresponding to premiums which would have fallen due on and after such anniversary, and (b) the amount of any indebtedness to the company on the policy. Provided, however, that for any policy which provides supplemental life insurance or annuity benefits by rider, supplemental policy provision or for any family policy which defines a primary insured and provides term insurance on the life of the spouse of the primary insured expiring before the spouse's age seventy-one, the present value referred to in the preceding sentence shall be equal to the sum of the present value as defined in the preceding sentence for an otherwise similar policy issued at the same age without such rider, supplemental policy provision or term insurance on the life of the spouse, and the present value as defined in the preceding sentence for a policy which provides only the benefits otherwise provided by such rider, supplemental policy provision or term insurance on the life of the spouse. Any cash surrender value available within thirty days after any policy anniversary under any policy paid-up by completion of all premium payments or any policy continued under any paid-up nonforfeiture benefit, whether or not required by section two, shall be an amount not less than the present value, on such anniversary, of the future guaranteed benefits provided for by the policy, including any existing paid-up additions, decreased by any indebtedness to the company on the policy.

4. Any paid-up nonforfeiture benefit available under the policy in the event of default in a premium payment due on any policy anniversary shall be such that its present value as of such anniversary shall be at least equal to the cash surrender value then provided for by the policy or, if none is provided for, that cash surrender value which would have been required by this Act in the absence of the condition that premiums shall have been paid for at least a specified period.

5. This section five shall not apply to policies issued on or after the operative date of section five-c as defined therein. Except as provided in the third paragraph of this section, the adjusted premiums for any policy shall be calculated on an annual basis and shall be such uniform percentage of the respective premiums specified in the policy for each policy year, excluding amounts stated in the policy as extra premiums to cover impairments or special hazards, that the present value, at the date of issue of the policy, of all such adjusted premiums shall be equal to the sum of (i) the then present value of the future guaranteed benefits provided for by the policy; (ii) two percent of the amount of insurance, if the insurance be uniform in amount, or of the equivalent uniform amount, as hereinafter defined, if the amount of insurance varies with duration of the policy; (iii) forty percent of the adjusted premium for the first policy year; (iv) twenty-five percent of either the adjusted premium for the first policy year or the adjusted premium for a whole life policy of the same uniform or equivalent uniform amount with uniform premiums for the whole of life issued at the same age for the same amount of insurance, whichever is less. Provided, however, that in applying the percentages specified in (iii) and (iv) above, no adjusted premium shall be deemed to exceed four percent (4%) of the amount of insurance or level amount equivalent thereto. The date of issue of a policy for the purpose of this section shall be the date as of which the rated age of the insured is determined.

In the case of a policy providing an amount of insurance varying with duration of the policy, the equivalent level amount thereof for the purpose of this section shall be deemed to be the level amount of insurance provided by an otherwise similar policy, containing the same endowment benefit or benefits, if any, issued at the same age and for the same term, the amount of which does not vary with duration and the benefits under which have the same present value at the inception of the insurance as the benefits under the policy.

The adjusted premiums for any policy providing term insurance benefits by rider or supplemental policy provision shall be equal to (a) the adjusted premiums for an otherwise similar policy issued at the same age without such term insurance benefits, increased, during the period for which premiums for such term insurance benefits are payable, by (b) the adjusted premiums for such term insurance, the foregoing items (a) and (b) being calculated separately and as specified in the first two paragraphs of this section except that, for the purposes of (ii), (iii) and (iv) of the first such paragraph, the amount of insurance or equivalent uniform amount of insurance used in the calculation of the adjusted premiums referred to in (b) shall be equal to the excess of the corresponding amount determined for the entire policy over the amount used in the calculation of the adjusted premiums in (a).

Except as otherwise provided in sections five-a and five-b, all adjusted premiums and present values referred to in this Act shall be for all policies of Ordinary Insurance be calculated on the basis of the Commissioners 1941 Standard Ordinary Mortality Table, provided that for any category of Ordinary insurance issued on female risks, adjusted premiums and present values may be calculated according to an age not more than three years younger than the actual age of the insured and such calculations for all policies of industrial insurance shall be made on the basis of the 1941 Standard Industrial Mortality Table. All calculations shall be made on the basis of the rate of interest, not exceeding three and one-half percent (3½%) per annum, specified in the policy for calculating cash surrender values and paid-up nonforfeiture benefits. Provided, however, that in calculating the present value of any paid-up term insurance with accompanying pure endowment, if any, offered as a nonforfeiture benefit, the rates of mortality assumed may be not more than one hundred and thirty percent (130%) of the rates of mortality according to such applicable table. Provided, further, that for insurance issued on a substandard basis, the calculation of any such adjusted premiums and present values may be based on such other table of mortality as may be specified by the company and approved by the commissioner.

5-a. This section five-a shall not apply to Ordinary policies issued on or after the operative date of section five-c as defined therein. In the case of Ordinary policies issued on or after the operative date of this section five-a as defined herein, all adjusted premiums and present values referred to in this Act shall be calculated on the basis of the Commissioners 1958 Standard Ordinary Mortality Table and the rate of interest specified in the policy for calculating cash surrender values and paid-up nonforfeiture benefits provided that such rate of interest shall not exceed three and one-half percent (3½%) per annum except that a rate of interest not exceeding four percent (4%) per annum may be used for policies issued on or after the effective date of this amendatory Act of 197-- and prior to January 1, 1986 and provided that for any category of Ordinary insurance issued on female risks, adjusted premiums and present values may be calculated according to an age not more than three years younger than the actual age of the insured. Provided, however, that in calculating the present value of any paid-up term insurance with accompanying pure endowment, if any, offered as a nonforfeiture benefit, the rates of mortality assumed may be not more than those shown in the Commissioners' 1958 Extended Term Insurance Table. Provided, further, that for insurance issued on a substandard basis, the calculation of any such adjusted premiums and present values may be based on such other table of mortality as may be specified by the company and approved by the commissioner.

After the effective date of this section five-a, any company may file with the commissioner a written notice of its election to comply with the provisions of this section after a specified date before January first, nineteen hundred and sixty-six. After the filing of such notice, then upon such specified date (which shall be the operative date of this section for such company), this section shall become operative with respect to the Ordinary policies thereafter issued by such company. If a company makes no such election, the operative date of this section for such company shall be January first, nineteen hundred and sixty-six.

5-b. This section five-b shall not apply to Industrial policies issued on or after the operative date of section five-c as defined therein. In the case of Industrial policies issued on or after the operative date of this section five-b as defined herein, all adjusted premiums and present values referred to in this Act shall be calculated on the basis of the Commissioners 1961 Standard Industrial Mortality Table and the rate of interest specified in the policy for calculating cash surrender values and paid-up nonforfeiture benefits provided that such rate of interest shall not exceed three and one-half percent (3½%) per annum, except that a rate of interest not exceeding four percent (4%) per annum may be used for policies issued on or after the effective date of this amendatory Act of 197-- and prior to January 1, 1986. Provided, however, that in calculating the present value of any paid-up term insurance with accompanying pure endowment, if any, offered as a nonforfeiture benefit, the rates of mortality assumed may not be more than those shown in the Commissioners 1961 Industrial Extended Term Insurance Table. Provided, further, that for insurance issued on a substandard basis, the calculations of any such adjusted premiums and present values may be based on such other table of mortality as may be specified by the company and approved by the commissioner.

After the effective date of this section five-b, any company may file with the commissioner a written notice of its election to comply with the provisions of this section after a specified date before January first, nineteen hundred and sixty-eight. After the filing of such notice, then upon such specified date (which shall be the operative date of this section for such company), this section shall become operative with respect to Industrial policies thereafter issued by such company. If a company makes no such election, the operative date of this section for such company shall be January first, nineteen hundred and sixty-eight.

5-c. This section shall apply to all policies issued on and after the operative date of this section five-c as defined herein. Except as provided in the fourth paragraph of this section or in section six, the adjusted premiums for any policy shall be calculated on an annual basis and shall be such uniform percentage of the respective premiums specified in the policy for each policy year, excluding amounts payable as extra premiums to cover impairments or special hazards, and also excluding an annual contract charge or policy fee which shall not exceed thirty dollars per annum, that the present value, at the date of issue of the policy, of all such adjusted premiums shall be equal to the sum of (i) the then present value of the future guaranteed benefits provided for by the policy; (ii) one percent of the amount of insurance, if the insurance be uniform in amount, or of the average amount of insurance at the beginning of each of the first ten policy years; and (iii) one hundred twenty-five percent of the nonforfeiture net level premium as hereinafter defined. The date of issue of a policy for the purpose of this section shall be the date as of which the rated age of the insured is determined.

The nonforfeiture net level premium shall be equal to the present value, at the date of issue of the policy, of the guaranteed benefits provided for by the policy divided by the present value, at the date of issue of the policy, of an annuity of one per annum payable on the date of issue of the policy and on each anniversary of such policy on which a premium falls due.

In the case of policies which provide for guaranteed unscheduled changes in benefits or premiums, the adjusted premiums and present values shall initially be calculated on the assumption that future benefits and premiums do not change from those defined at the date of issue of the policy. At the time of any unscheduled change in benefits or premiums the future adjusted premiums, nonforfeiture net level premiums and present values shall be recalculated on the assumption that future benefits and premiums do not change from those defined by the policy immediately after the time of the change to the newly defined benefits or premiums. Except as otherwise provided in the fourth paragraph of this section, the recalculated future adjusted premiums for any such policy shall be such uniform percentage of the respective future premiums specified in the policy for each policy year, excluding amounts payable as extra premiums to cover impairments and special hazards, and also excluding an annual contract charge or policy fee which shall not exceed thirty dollars per annum, that the present value, at the time of the change to the newly defined benefits or premiums, of all such future adjusted premiums shall be equal to the excess, whether positive or negative, the sum of (i) the then present value of the then future guaranteed benefits provided for by the policy and (ii) the additional expense allowance, if any, over the then cash surrender value, if any, or present value of any paid-up nonforfeiture benefit under the policy. The additional expense allowance, at the time of the change to the newly defined benefits or premiums, shall be the sum of (i) one percent of the excess, if positive, of the average amount of insurance at the beginning of each of the first ten policy years subsequent to the time of the change over the average amount of insurance at the beginning of each of the first ten policy years subsequent to the time of the most recent previous change, or, if there has been no previous change, the date of issue of the policy; and (ii) one hundred twenty-five percent of the increase, if positive, in the nonforfeiture net level premium.

The recalculated nonforfeiture net level premium shall be equal to the excess, at the time of the change to the newly defined benefits or premiums, of the then present value of the then future guaranteed benefits provided for by the policy over the then cash surrender value, if any, or present value of any paid-up nonforfeiture benefit under the policy; divided by the present value, at the time of the change, of an annuity of one per annum payable at the time of the change and on each subsequent anniversary of such change on which a premium falls due. Notwithstanding any other provision of this section to the contrary, adjusted premiums and present values for a policy issued to provide reduced amounts of insurance on a substandard basis may be calculated as if such policy were issued to provide higher amounts of insurance on the standard basis.

All adjusted premiums and present values referred to in this Act shall for all policies of Ordinary insurance be calculated on the basis of the Commissioners' 19-- Standard Ordinary Mortality Table and all adjusted premiums and present values shall for all policies of Industrial insurance be calculated on the basis of \_\_\_\_\_ . For policies of joint life insurance, adjusted premiums and present values may be calculated on the basis of the equivalent equal age as derived from the Commissioners 19-- Table of Uniform Seniority. All calculations shall be made on the basis of a rate of interest of five and one-half percent (5½%) per annum for annual premium policies and seven and one-half percent (7½%) per annum for single premium policies, except that any paid-up nonforfeiture benefit including any paid-up additions shall provide that any cash surrender value available under such paid-up nonforfeiture benefit, whether or not required by

section two, shall be calculated on the basis of the mortality table and rate of interest used in determining the amount of any such paid-up nonforfeiture benefit. Provided, however, that a company may calculate the amount of any guaranteed paid-up nonforfeiture benefit including any paid-up additions under the policy on the basis of an interest rate no lower than that specified in the policy for calculating cash surrender values. Provided, further, that in calculating the present value of any paid-up term insurance with accompanying pure endowment, if any, offered as a nonforfeiture benefit, the rates of mortality assumed may not be more than those shown in the Commissioners 19- Extended Term Insurance Table for policies of Ordinary insurance and not more than \_\_\_\_\_ for policies of Industrial Insurance. Provided further, that for insurance issued on a substandard basis, the calculation of any such adjusted premiums and present values may be based on appropriate modifications of the aforementioned tables.

After the effective date of this section five-c, any company may file with the commissioner a written notice of its election to comply with the provision of this section after a specified date before January first, nineteen hundred and \_\_\_\_\_, which shall be the operative date of this section for such company, provided, a company may elect a different operative date for Ordinary policies from that elected for Industrial policies. If a company makes no such election, the operative date of this section for such company shall be January first, nineteen hundred and \_\_\_\_\_.

6. Notwithstanding any provisions of sections two, three, four, five, five-a, five-b or five-c to the contrary, a policy of life insurance may be issued which provides cash surrender values and paid-up nonforfeiture benefits which do not literally comply with the provisions of subsections two, three, four, five, five-a, five-b and five-c provided the commissioner is satisfied that the benefits under such policy are substantially as favorable to policyholders and insureds as the minimum benefits otherwise required by said subsections and that the benefit structure of the contract is not such as to mislead prospective policyholders or insureds. In making a determination under this section with respect to a particular policy, the commissioner shall take into consideration any opinion or recommendation of any committee or subcommittee of the National Association of Insurance Commissioners having responsibility for nonforfeiture matters.

7[6]. Any cash surrender value and any paid-up nonforfeiture benefit, available under the policy in the event of default in a premium payment due at any time other than on the policy anniversary, shall be calculated with allowance for the lapse of time and the payment of fractional premiums beyond the last preceding policy anniversary. All values referred to in sections three, four, five, five-a, [and] five-b and five-c may be calculated upon the assumptions that any death benefit is payable either at the date of death or at the end of the policy year of death, that premiums are paid either annually at the beginning of each policy year or continuously throughout each policy year, and that an insured's age is based on either age last birthday or age nearest birthday. The net value of any paid-up additions, other than paid-up term additions, shall be not less than the amounts [dividends] used to provide such additions. Notwithstanding the provisions of section three, additional benefits payable (a) in the event of death or dismemberment by accident or accidental means, (b) in the event of total and permanent disability, (c) as reversionary annuity or deferred reversionary annuity benefits, (d) as [decreasing] term insurance benefits provided by a rider or supplemental policy provision to which, if issued as a separate policy, this Act would not apply, (e) as term insurance on the life of a child or on the lives of children provided in a policy on the life of a parent of the child, if such term insurance expires before the child's age is twenty-six, is uniform in amount after the child's age is one, and has not become paid up by reason of the death of a parent of the child, and (f) as other policy benefits additional to life insurance and endowment benefits, and premiums for all such additional benefits, shall be disregarded in ascertaining cash surrender values and nonforfeiture benefits required by this Act, and no such additional benefits shall be required to be included in any paid-up nonforfeiture benefits.

8[7]. This Act shall not apply to any reinsurance, group insurance, pure endowment, annuity or reversionary annuity contract, nor to any term policy of uniform amount, which provides no guaranteed nonforfeiture or endowment benefits, or renewal thereof, of twenty [fifteen] years or less expiring before age seventy-one [sixty-six], or in the case of a joint life term policy, before the oldest life attains age seventy-one, for which uniform premiums are payable during the entire term of the policy, nor to any term policy of decreasing amount, which provides no guaranteed cash value or endowment benefits, on which each adjusted premium, calculated as specified in sections five, five-a, [and] five-b and five-c, is less than the adjusted premium so calculated, on such term policy issued at the same age and for the same initial amount of insurance, nor to any policy, which provides no guaranteed nonforfeiture or endowment benefits, for which no cash surrender value, if any, or present value of any paid-up nonforfeiture benefit, at the beginning of any policy year, calculated as specified in sections three, four, five, five-a, five-b and five-c, exceeds two and one-half percent (2½%) of the amount of insurance at the beginning of the same policy year, nor to any policy which shall be delivered outside this state through an agent or other representative of the company issuing the policy.

2[8]. After the effective date of this Act, any company may file with the commissioner a written notice of its election to comply with the provisions of this Act after a specified date before January first, nineteen hundred and forty-eight. After the filing of such notice, then upon such specified date (which shall be the operative date for such company), this Act shall become operative with respect to the policies thereafter issued by such company. If a company makes no such election, the operative date of this Act for such company shall be January first, nineteen hundred and forty-eight.

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#### ATTACHMENT D

Draft Proposed NAIC Model Regulation  
Reserve Requirements for the December 31, 1975 and  
Subsequent Valuations With Respect to Interest Rate  
Guarantees on Active Life Funds Held Under Group Annuity Contracts

As part of the determination of the aggregate minimum group annuity reserves, a computation must be made of minimum reserves for deposit administration group annuity funds<sup>(1)</sup> with interest rate guarantees. In making such computation the procedure and minimum standards described below shall be applicable for the December 31 valuations giving recognition to the date deposits were made. Where appropriate, with the approval of the commissioner, recognition may be given to the extent and time of application of active life funds to purchase annuities, expense assessments against the fund, and the excess of purchase price over minimum reserves. In no event shall the reserve be less than the transfer value, if any, of the fund.

Approximate methods and averages may be employed with the approval of the commissioner.

*(1) Deposit administration group annuity funds include all funds pertaining to the possible purchase of group annuities held in a separate account or in a general account, whether shown as premiums, advance premiums, auxiliary funds, or any other funds of an analogous nature and whether the liability is shown in the annual statement blank under Exhibit 8 or elsewhere.*

For funds received:

1. Prior to 1974, follow the procedure used at that time.
2. For funds received in calendar year 1974, follow the less restrictive of:
  - (a) The procedure used prior to 1974; or
  - (b) With the approval of the Department of Insurance, a company may use the following basis to determine the additional reserve for interest rate guarantees relating to contributions received in 1974 under Deposit Administration group annuity funds.

$$\text{Interest guarantee Factor} = [1 + (i_g - i_p)]^n - 1$$

Where:  $i_g$  = interest rate guaranteed under the contract

$i_p$  = lesser of the net new money rate credited on group annuity funds received in 1974 or 1975 but in no year greater than  $i_g$ .

$n$  = number of guarantee years, and fractions thereof, remaining as of the valuation date.

3. For funds received in calendar years 1975 and subsequent, follow the procedure and minimum standards prescribed in this section.

The minimum reserve shall be equal to the sum of the minimum reserves for funds attributable to contributions received in each of the calendar years 1975 and later.

Where  $V_y$  = Minimum reserve for funds attributable to contributions received in calendar year  $y$ .

$$V_y = [C_y \times (1+i_{gy})^n] / (1+i_{py})^n$$

$n$  = Number of guarantee years, and fractions thereof, remaining as of the December 31 valuation.

$C_y$  = Portion of the guaranteed fund attributable to contributions received in calendar year  $y$ .

$i_{gy}$  = Interest rate guaranteed under the contract with respect to funds attributable to contributions received in calendar year  $y$ .

$i_{py}$  = Interest rate for valuation purposes

= Lowest of:

(1) The net new money rate credit by the company on group annuity funds received in calendar year  $y$  less .005 for deposits with interest guarantees effective only on funds received in calendar year  $y$ , and less .010 for deposits on contracts with interest guarantees effective in calendar year  $y$  which are applicable to all future deposits made on such contracts within the interest guarantee period; or

(2)  $i_{gy}$ ; or

(3)  $i_{my}$ ; where

$i_{my}$  = (i) For calendar year  $y+1$  through  $y+9$ , the average gross new money rate based on the reports of companies for specified investments made in calendar year  $y-1$  less .010 for deposits with interest guarantees effective only on funds received in calendar year  $y$ , and less .015 for deposits on contracts with interest guarantees effective in calendar year  $y$  which are applicable to all future deposits made on such contracts within the interest guarantee period. (2)

(ii) For calendar years  $y+10$  and later, .060.

(2) With respect to funds attributable to contributions received in 1975, this factor for calendar years 1976 through 1984, based on the reports of 37 companies for specified investments made in 1974, is .081 with respect to those contracts where the interest guarantees apply only to deposits made in calendar year 1975 and .076 for those contracts with interest guarantees applicable to all future deposits made within the interest guarantee period. With respect to funds attributable to contributions received in 1976 this factor for calendar years 1977 through 1985, based on the reports of \_\_\_\_\_ companies for specified investments in 1975, is \_\_\_\_\_ with respect to those contracts where the interest guarantees apply only to deposits made in calendar year 1975 and \_\_\_\_\_ for those contracts with interest guarantees applicable to all future deposits made within the interest guarantee period.

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#### ATTACHMENT E1

To: Members of the (C) Committee Technical Task Force on Valuation and Nonforfeiture Value Regulation

From: John Montgomery, Life Actuary  
California Department of Insurance

Re: Disclosure on Individual Deferred Annuities

A review of the Model Individual Deferred Annuity Nonforfeiture Value Legislation and suggestions for disclosure discussed at the New Orleans meeting in June 1976, leads me to these conclusions:

1. I agree with C.F.B. Richardson's contention that "there is obviously an urgent need for disclosure of guaranteed cash values on all forms of deferred annuities, both annual and single premium, and in the case of contracts where there are no cash values, the death benefit."

2. I also agree with his opinion that these values should be shown in a Policy Summary for the amount of the premium proposed, assuming in the case of flexible premium contracts a certain future level of premiums.
3. With respect the values which should be disclosed, I believe that the values at age 65 must also be shown in addition to those suggested (values for each of the first ten policy years and for the fifteenth and twentieth policy years). Values at one fixed maturity age rather than at a range of such ages is important for comparative purposes.
4. Illustrations of benefits derived on the assumption of continuance of the interest rate currently being paid should be accompanied by the guaranteed values, with suitable wording to clearly specify that the illustrated amounts are not guaranteed.
5. With respect to the disclosure of the effective annual yield with respect to the gross premiums paid by the annuitant, the requirement of such disclosure at every policy duration seems burdensome and creates another series of values to confront and confound the prospective annuitant. The basic purpose of the deferred annuity is to provide an income commencing at some future date and such money is not to be treated as another form of savings bank account. I believe it would be advantageous to both the annuitant and the company if the effective annual yield on a gross premium basis were disclosed under the following conditions:

- (a) At time of prospective purchase the effective guaranteed annual yield on the gross premiums paid must be shown for the values at age 65.

It must be emphasized in the policy summary that the primary purpose of the contract is to provide a deferred income and that surrenders in the earlier contract years will be penalized to the extent that the effective annual yield on early withdrawals may be considerably less than that shown for age 65.

- (b) After the contract is in force any inquiry as to the amount of surrender value available must show the effective annual yield on a gross premium basis for the surrender value available and compare that with the effective annual yield on that value if it were to be retained and accumulated at guaranteed interest rates to age 65. This will make the annuitant more aware of the penalty he may incur for withdrawal.
- (c) The effective annual yield based on the current interest rate actually paid may be used only if accompanied by the effective annual yield based on the guaranteed interest rate with suitable wording to specify that the illustrated amounts are not guaranteed.

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#### ATTACHMENT E2

To: John O. Montgomery, F.S.A., Chief Actuary  
California Insurance Department

From: William R. Burns, Actuary  
North Dakota Insurance Department

Re: Disclosure Requirements on Individual Deferred Annuities

Date: August 26, 1976

At our Milwaukee meeting, I mentioned that I would send you a letter outlining my thoughts in regard to the possibility of requiring the insurer to provide actual yield rates on gross premiums paid by the policyholder. As I stated at the meeting, I am opposed to requiring the insurer to provide this information, except upon the specific request of the applicant or policyholder. The reasons for my view are as follows:

1. To provide the applicant or policyholder with such a low (frequently negative) yield rate would be suggestive to him that he is about to purchase or has purchased the equivalent of some form of simple savings account, and a poor one at that. It stresses the savings account aspect of the contract, rather than the other more important aspects, namely interest rate guarantees on net considerations during the accumulation period and deferred annuity guarantees to be used in the future. As you stated in item number 5 on the first page of your August 5, 1976 memorandum (Attachment C4) "The basic purpose of the deferred annuity is to provide an income commencing at some future date and such money is not to be treated as another form of savings bank account."

2. Being given this low yield indication will encourage the applicant or policyholder to compare such low yield with the current earnings rate on simple savings accounts (which provide no comparable guarantees).

3. The insurer is not required, in the case of a whole life policy, to give the applicant or policyholder the yield rate earned on gross whole life premiums paid. This is proper, since the resulting low yield rate would be due to the fact that the insurer will have provided life insurance benefits over the specified period and the insurer will have incurred legitimate selling and other expenses related to the sale of the policy. Similarly, in the case of an individual deferred annuity, the insurer will have provided certain interest guarantees and certain deferred annuity guarantees (even though not in fact used by the policyholder) over the specified period and the insurer will have incurred certain legitimate selling and other expenses related to the sale of the contract. Just as it would be improper to require the insurer to provide the applicant or policyholder these yield rates in the case of a whole life policy, so also would it be improper to require the insurer to provide these yield rates in the case of an individual deferred annuity.

4. If the NAIC were to require the insurer to provide yield rates earned on a gross premium basis, in the case of individual deferred annuities, the result would undoubtedly be to impose an unwarranted and unreasonable burden upon the insurer and the agent in the sale of this legitimate product. It would artificially and unjustifiably inhibit the sale of these contracts. It would be punitive.

Should it be the desire that the insurer be required to provide the applicant or policyholder with a scientific measure of the net cost of this type of contract, then I would suggest that consideration be given to the required presentation of a net cost index comparable to the interest adjusted surrender cost index in the case of individual life insurance. The periods over which such indices would apply might be the first 20 years and the period to maturity (e.g. age 65) if longer than 20 years. From accumulated premiums would be deducted the guaranteed cash value at the end of the period; also deducted would be dividends and/or surplus interest payments accumulated to the end of the period. Then, as in the case of the life insurance index, the resulting net accumulation might be divided by an appropriate annuity value to produce the equivalent annual net cost over such period. Such annual net cost would reflect the cost of the insurer's providing interest guarantees and deferred annuity guarantees under the contract and the cost of the insurer's selling and other expenses related to the sale, issue and maintenance of the contract. Then, if the applicant or policyholder desired, he could obtain similar net cost indices from other insurers for comparison purposes. The important point is that the applicant or policyholder would be directed toward the proper path to enable him to make his desired comparisons, rather than be encouraged to compare unfairly the yield results of the individual deferred annuity with those of a much simpler savings account which provides no guarantees comparable to those provided under an individual deferred annuity.

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#### ATTACHMENT F

##### Minutes of Society of Actuaries Committee to Develop New Valuation Tables

The Prudential Center  
Boston, Massachusetts  
October 12, 1976

Present: Julius Vogel, Chairman; Charles A. Ormsby; Neil M. Anderson; Wilbur M. Bolton; Kenneth P. Hinsdale; Hodge L. Jones Jr.; J. Clunas McKibbin; William K. Nicol; Gary N. See; Joseph C. Sibigtroth; C. David Silletto; James G. Stewart; William A. White.

Absent: Waid J. Davidson Jr.

Guests: Michael J. Rich, Assistant Actuary of the John Hancock Mutual Life Insurance Company.

Chairman Vogel called the meeting to order at 9:00 a.m. He expressed appreciation to the members for their attendance and asked for discussion on the various agenda items.

#### A. Purpose of New Valuation Tables.

While it was generally agreed that a deficiency problem analogous to the situation which served as an impetus to the 1958 CSO Table exists today, particularly on term plans, the consensus was that in addition, the present treatment of female lives from a public relations standpoint is not satisfactory. It was also agreed that the new tables should serve the regulators in providing a sound conservative basis appropriate for solvency protection.

### B. Development of New Valuation Tables.

The committee reviewed the items in Mr. Sibigroth's letter of September 13th:

1. Exposure Period. Mr. Rich reported that utilizing policy anniversary years from 1970 to 1975, including nonmedical but excluding the first five policy years, should provide enough data to develop a female table as well as a male table. The consensus was that it would be desirable to develop a select and ultimate table on medical business only as a starting point. As various choices are considered in achieving the ultimate objective of an aggregate table the choices can be better quantified.
2. Select Period. Mr. Rich indicated that it might be possible to provide the committee with rough aggregate tables excluding various select periods. The critical area in this regard is the female data.
3. Nonmedical Data. While the industry is moving to a higher percentage of nonmedically issued business, it was felt that caution should be exercised in selecting the appropriate mix of assumed business and consequent effect on reserves.
4. Central Age Assumption. It was agreed that this will have to be studied further. No problem is envisioned in including 65-69.
5. Age Nearest Birthday. Particular attention will be paid to age 0. Eventually both age-nearest and age-last tables will be published but the data studied will be on or converted to age-nearest.
6. War Deaths. Agreed to exclude.
7. Decrease in Mortality in the 20's. These may differ by sex.
8. Graduation. No decision.

### C. Need for Separate Male and Female Mortality Tables.

A subcommittee headed by Mr. Siletto had explored this item and, from a purely technical standpoint, concluded that separate valuation tables are not necessary and rough equity can be achieved through premium differentials. However, considering the situation with respect to pensions and disability insurance and the misunderstanding in general of present practice in life insurance, it was felt that our only choice is to develop separate tables. This choice is made notwithstanding the extra costs in ratebooks, file maintenance, computing of dividends and other increased costs. The committee agreed that we appear to be "inexorably driven" to the development of two tables.

### D. Margins.

It was noted that this will be the key question, particularly female vs. male and their consistency. In determining the final loadings for the 1958 CSO, it appeared that concern was given to the mortality rates and that, at least in the published report, the effect on reserves was given less weight. It was agreed that, as was done for the 1958 CSO Table, data would be secured from additional companies. Mr. Sibigroth indicated that a copy of the original questionnaire could possibly be obtained. It was suggested that the Society office could assist in the mailing of a new questionnaire. In this regard, Mr. Rich was asked to furnish a copy of the instructions to those members associated with noncontributing companies.

### E. Other Interested Parties.

The chairman said he would keep appropriate persons informed such as John Montgomery (NAIC) and Richard Minck (ACLI).

### F. Conclusions.

In confirmation of earlier tentative conclusions, it was affirmed that we would proceed to develop the select and ultimate tables for both sexes on medically examined business using the 1970-74 years (1975 not yet available) and also develop an aggregate table, omitting the first five policy years to see what it looks like.

G. Next Meeting.

The chairman announced that it is unlikely that we will meet again this year. Mr. See will canvas the members for a suitable date and place after the minutes are distributed and work has proceeded further.

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## ATTACHMENT G

Minutes of the Meetings of the (NAIC (C) Committee  
 Technical Task Force on Valuation and Nonforfeiture Value Regulation  
 August 18-20, 1976

The NAIC (C) Committee Technical Task Force on Valuation and Nonforfeiture Value Regulation met at the NAIC Central Office in Milwaukee, Wisconsin on August 18-20, 1976. Since the task force must prepare reports for each of the four NAIC subcommittees reporting to the (C) Committee, the activities of the task force are described in four parts attached to these minutes, and the minutes and the appropriate part will be included as an attachment in each of the four reports to be prepared for the December meeting.

The meeting Wednesday, August 18, 1976, started at 8:00 a.m. and adjourned at 6:00 p.m. The meeting Thursday, August 19, 1976, commenced at 8:00 a.m. and adjourned at 5:00 p.m. The meeting Friday, August 20, 1976, commenced at 8:00 a.m. and adjourned at 1:30 p.m. without taking time for lunch.

Members of the NAIC technical task force attending each meeting were: John O. Montgomery, Chairman, California; W. Keith Sloan, Arkansas; Erma Edwards, Nevada; Robert J. Callahan, New York; William Burns, North Dakota; Ramon Estefania, South Carolina; Ted Becker, Texas; Bradford S. Gile, Wisconsin.

For the Society of Actuaries Committee on Valuation Laws: Charles Greeley, Metropolitan, August 18 and 19; Stephen Frankel, Northwestern Mutual, August 18.

For the American Council of Life Insurers: Richard V. Minck and John K. Booth, August 18 and 19.

For the Health Valuation Advisory Committee: E. Paul Barnhart, Chairman, August 20; Peter Thexton, Health Insurance Association of America, August 19 and 20.

For the Health Nonforfeiture Value Advisory Committee: Ernie Frankovich, Chairman, George V. Stennes & Associates, August 20.

Other interested persons attending were: A. Charles Howell, John Hancock, Chairman of the ACLI Advisory Committee on Group Annuity Valuation, August 18 and 19; Mike Medland, CUNA Mutual Insurance Society, August 18; Albert Pike, representing Teachers Insurance and Annuity Association, August 18 and 19.

Subjects discussed were:

A. For the (C1) Accident and Health Insurance Subcommittee, August 20, 1976 meeting.

1. Report on the New York Department Disability Study.
2. Report of the Health Valuation Advisory Committee.
3. Report of the Health Nonforfeiture Value Advisory Committee: "Test of Adequacy of Reserves, Return of Premium Benefit (ROP) -- Rollover Variety.
4. Draft a request to the Society of Actuaries for a table to update the 1964 Commissioners' Disability Table.
5. The feasibility of a "Stop-Gap" Disability Table to be used until the 1964 CDT is updated.

6. Standards for review and approval of A & H premium increases.
  7. Review the purpose of the annual statement blank with respect to accident and health insurance.
- B. For the (C2) Credit Life and Disability Insurance Subcommittee, August 18, 1976 meeting. This consisted primarily of an organizational report.
- C. For the (C3) Life Insurance Subcommittee, August 18 and 19, 1976 meetings. (Attachment G1).
1. Model Legislation for Individual Deferred Annuity Nonforfeiture Values (August 18).
  2. Basic Principles of Reserve Requirements (August 19).
  3. The Valuation of Annuities (August 18 and 19).
    - a. Group Annuity Deposit Administration Funds.
    - b. Individual Deferred Annuities and Deposits Other Than Group Annuity Funds.
  4. Revision of the Standard Valuation Law (August 18 and 19).
  5. Revision of the Standard Nonforfeiture Value Law (August 19).
  6. Work of the NAIC Valuation Technical Advisory Committee (August 18).
  7. Mortality Table Construction (August 18).
- D. For the (C4) Variable Life Insurance and Variable Annuities Subcommittee, the August 18 meeting consisted primarily of an organizational report.

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#### ATTACHMENT G1

##### Items for the (C3) Life Insurance Subcommittee (Meetings of August 18-19, 1976)

1. Model Legislation -- Individual Deferred Annuity Nonforfeiture Values (Discussed August 18, 1976).
  - a. Definition of contracts excluded from coverage.

After considerable discussion on what contracts were to be included and what were to be excluded from coverage under the model legislation, it was decided to revise the exposure draft by renumbering Section 9 to become Section 2, resulting in Sections 2 through 8 being renumbered to Sections 3 through 9 respectively, changing all of the internal references to such Sections, and to revise the new Section 2 as follows (the underlined words are new, no words were deleted):

2. This section shall not apply to any reinsurance, group annuity contract issued in connection with a pension plan (other than an Individual Retirement Account) as defined by and subject to the federal Employee Retirement Income Security Act of 1974 (ERISA) as now or hereafter amended, premium deposit fund, variable annuity, investment annuity, immediate annuity, or any deferred annuity contract after annuity payments have commenced, or reversionary annuity, nor any contract which shall be delivered outside this state through an agent or other representative of the company issuing the contract.

Comment was expressed that the group annuity phrase may yet exclude some contracts for which coverage by the model law is intended. Further research is needed before the final drafting in October to make certain that such a situation does not exist.

b. The minimum nonforfeiture value formula.

Two significant changes and one correction to the formula as defined in Section 3 (Section 2 of the draft included as Attachment E2 to the June Report to the NAIC) were discussed:

- (1) Under subsection (a) the third sentence should be revised to read (additions are underlined, deletions are lined through):

Notwithstanding the provisions of the preceding sentence, the percentage shall be sixty percent of the portion of the total net consideration for any renewal contract year which exceeds by not more than two times the ~~highest total sum of those portions of the net considerations for any single prior contract year shall be~~ in all prior contract years for which the percentage was sixty percent.

- (2) Under subsection (a) the fourth sentence should be corrected to read:

The level percentages shall be eighty-five percent of the net considerations for each contract year.

- (3) The effect of replacing the formulas as now stated by a formula which would remove the need for a separate "level percentage" formula should be explored. Two formulas were suggested:

- (a) 60% of the first year net consideration and 87½% of all renewal years' net considerations.  
 (b) 65% of the first year net consideration and 87½% of all renewal years' net considerations.

(Drafting Note: From questions I have since received concerning this section, I believe that either the definition of "net consideration" now given in the last sentence of subsection (2) should be given before that expression is given in a formula or a parenthetical reference to such a definition should be made when the formula is given in the section.)

A revised draft of Section 3, incorporating the formula defined by (3)(b) above and the drafting note just mentioned, is attached (Attachment G2) using the parenthetical reference.

c. Relationship of surrender value to paid-up annuity benefit at maturity.

Several changes with respect to Section 5 (Section 4 of the draft included as Attachment E2 to the June Report of the NAIC) were discussed, and the wording was revised to express more clearly the intent of this section as follows (additions underlined, deletions lined through):

- 4.5. For contracts which provide cash surrender benefits such cash surrender benefits available prior to maturity shall not be less than the present value as of the date of surrender of that portion of the maturity value of the paid-up annuity benefit ~~which would be provided under the contract at maturity arising from considerations paid prior to the time of cash surrender reduced by the amount appropriate to reflect any prior withdrawals from or partial surrenders of the contract, such present value being discounted~~ calculated on the basis of an interest rate not more than one percent higher than the interest rate specified in the contract for accumulating the net considerations to determine such value at maturity decreased by the amount of any indebtedness to the company on the contract, including interest due and accrued, and increased by any existing additional amounts credited by the company to the contract. However, in no event shall any cash surrender benefit be less than the minimum nonforfeiture amount at that time. The death benefit under such contracts shall be at least equal to the cash surrender benefit.

For contracts which do not provide cash surrender benefits, the present value of any paid-up annuity benefit available at any point in time prior to maturity shall not be less than the present value of that portion of the paid-up annuity benefit provided under the contract at maturity arising from considerations paid prior to such point in time ~~discounted, such present value being calculated~~ for the period prior to the maturity date on the basis of the interest rate specified in the contract for determining the present value of the paid-up annuity benefit at maturity. However, in no event shall the present value of any paid-up annuity benefit be less than the minimum nonforfeiture amount at that point in time.

For the purpose of determining the benefits required by this subsection, in the case of annuity contracts under which an election may be made to have annuity payments commence at optional maturity dates the maturity date shall be deemed to be the latest date for which election which shall be permitted by the contract but shall not be deemed to be later than the anniversary of the contract next following the annuitant's seventieth birthday or the tenth anniversary of the contract whichever is later.

d. Disclosure on individual deferred annuities.

A discussion on recommendations to the NAIC Task Force on Disclosure with respect to disclosure requirements for Individual Deferred Annuities revealed a wide divergence of opinion among members of the technical task force. Some supported the industry view that the effective annual yield on a gross premium basis need not be disclosed because of other factors such as mortality and expenses while other members believed in varying degrees that, if the annuities are marketed as some form of premium deposit arrangement with emphasis on current high investment yields that the effective annual yield on a gross premium basis should be shown. It was agreed that the various members and advisory groups should prepare statements to be resolved in the form of a recommendation to the NAIC Committee on Disclosure to be drafted in October. This recommendation will express both majority and minority views and will ask the Disclosure Task Force to withhold any final recommendation for action by the NAIC until these views have been resolved.

2. Basic Principles of Reserve Standards.

The task force members present adopted a modification of Mr. Montgomery's proposal of August 5, 1976 as follows:

The formulation of basic principles of reserve requirements involves an attempt to resolve two classically opposed forces, the theoretical ideal and practical reality. What is needed are not only basic principles for reserve requirements for interest guarantees but basic principles for reserve requirements in general. Three fundamental principles seem apparent:

1. The primary purpose of reserve requirements is to lock up enough funds to provide, under reasonable expectations of experience, for the payment of future guaranteed benefits and, in the case of contracts becoming paid up, for the expenses of maintaining such paid up contracts.
2. The minimum reserve requirements must be such that the net cost of insurance to the policyholder is the least that can be expected and still satisfy the primary purpose of such requirements.
3. Reserve requirements must consider the effects of those requirements in designing insurance and annuity products and should not arbitrarily attempt to deliberately limit or mandate the choice of such products.

From these fundamental principles a number of basic rules can be developed with respect to the various areas of valuation problems. Before discussing these, however, there are a number of practical realities which must be observed:

- a. The wide variety of technical competence of the actuarial staffs of the various state insurance departments requires that specific methods and standards for reserve for each type of liability must be provided either in the law or by regulation authorized by law. (The NAIC technical task force must originate these standards to promote uniformity among the states and continuity within each state.)
- b. While it is a noble aspiration that, "The actuary working with a particular situation should be free to exercise his professional judgment with respect to the mathematical formulae employed in calculating reserves . . ." the practical fact is that, under the current embryonic system for setting standards of actuarial conduct and for enforcing those standards, the regulatory authorities cannot assume the risk of allowing such freedom and must of necessity set specific standards for reserves. Of course, the factors assumed and not assumed in setting those standards must be delineated in the definition of the standards.
- c. The time frame within which we must operate requires that action be taken as soon as possible for those areas where agreement can be reached as to the proper basis for valuation consistent with that existing or contemplated for other areas. If there is a particular problem with respect to a segment of an area of valuation which cannot be solved now, that should not delay action on those parts of the problem for which a solution seems apparent at the present time.

With these three fundamental principles and these three practical realities in mind, in respect to reserve requirements for interest guarantees:

- (1) The Standard Valuation Law applies to the valuation of all guaranteed benefits associated with contracts involving life contingencies and the guaranteeing of interest accumulation at a rate of interest in excess of the maximum valuation interest rate is considered as such a benefit. Although this principle may be implied in the present Standard Valuation Law a revision of that law should be more specific with respect to this and other guaranteed benefits not mentioned.
- (2) The course of action with respect to reserve requirements for interest guarantees also must apply to all items where interest guarantees are a factor.
- (3) Whether or not the investment year method is used in the valuation of liabilities will determine what course of action is to be followed.

The matter of how to treat reserve requirements for interest guarantees in excess of the maximum valuation interest rate on premiums or deposits yet to be received has been deferred for further study. One approach would be to use a more conservative interest assumption in valuing deposits already received on contracts with longer periods of excess interest guarantees. Another is to use a projected scale of future considerations to be received. Some further research is indicated before a decision by the task force can be reached.

However, the urgency of setting up those recommendations which the members of the task force can agree upon is of the utmost importance, and they should not be delayed further.

### 3. The Valuation of Annuities (Discussed August 18, 1976).

#### a. Group Annuity Deposit Administration Funds.

- (1) The revision of the model regulation prepared as Attachment D3 to the June 1976 Report to the NAIC was discussed. The principal point of discussion was the reserving for future deposits at high guaranteed interest rates. Attached are three items further explaining some of the problems involved:
  - (a) Report of Robert J. Callahan to Thomas J. Kelly on the conference August 3, 1976 of the New York Insurance Department with its advisory committee on reserve requirements for interest rate guarantees on active life funds held under group annuity contracts (Attachment G3, Part 1).
  - (b) Report by John S. McCoy, Chairman of the New York Department Advisory Committee (Attachment G3, Part 2).
  - (c) Report by Carl R. Ohman to Thomas J. Kelly (Attachment G3, Part 3). This report is of particular value in demonstrating the dampening effect on interest rate fluctuation achieved by level contributions as compared to single sum contributions.
- (2) The principal features of the proposed regulation are:
  - (a) The valuation of group annuity funds received in each calendar year depends upon whether or not the interest guarantees on group annuity contracts initiated during a particular calendar year apply to funds received on those contracts in subsequent calendar years during the period of such interest guarantees.
  - (b) This theoretically requires that group annuity contracts extending the initial interest guarantees to funds received during the interest guarantee period on those contracts be given a different valuation procedure from those group annuity contracts where each successive calendar year's deposits have their own interest guarantees so that future deposits on this second type of contract will be made at interest guarantees effective at the date of deposit.
  - (c) The reserving method for interest guarantees in excess of the valuation interest rate consists of accumulating the funds on deposit as of a particular valuation date from that valuation date until the end of the guarantee period using the guaranteed interest rate, and then discounting that calculated guaranteed accumulated value back to the valuation date using the valuation interest rate.

- (d) The valuation interest rate, with respect to funds attributable to contributions received in a particular calendar year,  $y$ , for those group annuities contracts where interest guarantees apply only to funds received in the current calendar year, is the lowest of:
- (i) The net new money rate credited by the company on group annuity funds received in that calendar year less .005;
  - (ii) the guaranteed interest rate; or
  - (iii) An interest rate based upon an industry average gross new money rate for specified investments made in the calendar year prior to the calendar year of deposit decreased for investment expenses and taxes ( $\frac{1}{2}\%$ ) and decreased for the risk of reinvesting coupons at a lower rate and of rollover losses ( $\frac{1}{2}\%$ ) and reducing to 6% for those calendar years more than ten years after the calendar year of deposit.
- (e) For those group annuity contracts where interest guarantees effective at the initialization of such contracts are applicable to all future deposits received during the guarantee period two alternatives have been considered by the NAIC Technical Task Force; the first providing an initial 2% margin between the valuation rate and the new money rate (presumably on both items (i) and (ii) in (d) above) reducing by 1/4% each year until no margin after eight years (except (ii) reduces to 6% after ten years); and the second alternative providing a flat 1/2% additional margin (so that the new money rate in (i) is reduced by .01 instead of by .005 and in (iii) by .015 instead of by .01.
- (3) After discussing the modifications for interest guarantees on future deposits, it was decided to defer a final decision on this aspect until the St. Paul meeting in October.
- (4) Modifications to the draft copy of the model regulation appearing as Attachment D3 to the June Report of the NAIC Life Technical Subcommittee were:
- (a) Rewrite the first two paragraphs of the model regulation (additions are underlined, deletions are lined through):

as a part of the determination of the aggregate minimum group annuity reserves, a computation must be made of minimum reserves for deposit administration group annuity funds<sup>(1)</sup> with interest rate guarantees. In making such computation the procedure and minimum standards described below shall be applicable for the December 31 valuations giving recognition to the date deposits were made. Where appropriate with the approval of the commissioner recognition may be given to the extent and time of application of active life funds to purchase annuities, expense assessments against the fund, and excess of purchase price over minimum reserves, and the date the deposits were made. In no event shall the reserve be less than the transfer value, if any, of the fund.

(1) Deposit administration group annuity funds include all funds pertaining to the possible purchase of group annuities, whether such funds are held in a separate account or in a general account, whether shown as premiums, advance premiums, or auxiliary funds, and whether the liability is shown in Exhibit 8 or elsewhere in the Annual Statement Blank.

Approximate calculations for the December 31, 1976 valuation will be acceptable in view of the late date of promulgation of this instruction methods and averages may be employed with the approval of the Commissioner.

- (b) Remove pages 4 and 5 of the model regulation, change the first paragraph of Section 3 on page 2:

For funds received in calendar years 1975 and subsequent, follow the procedure and minimum standards prescribed in either (a) or (b) of this section.

and remove "(a)" from the beginning of the second paragraph of Section 3 on page 2.

- (c) The footnote indicator for  $i_{my}$  on page 3 should appear at the end of part (i) of the definition given for  $i_{my}$  and should be labelled footnote "(2)" instead of with an asterisk.
- b. Individual Deferred Annuities and Deposits Other than Group Annuity Funds (Discussed August 19, 1976).
- (1) The standard Valuation Law requires that the interest rate guarantees in excess of the maximum permissible valuation interest rate be considered as benefits to be valued at the valuation interest rate. The reserve must be adequate as of the valuation date to cover the greatest of the present values, using the maximum permissible valuation interest rate of the various prospective guaranteed surrender values including the present value of the maturity value.
  - (2) For contracts with no specified maturity date it was decided to assume a valuation maturity age of the older of age 65 or the attained age at valuation date plus ten years.
  - (3) The complexity of the calculations involved was questioned but it was determined that, with the variety of calculators and computers available, this is not really a problem.
  - (4) The remainder of the discussion with respect to individual deferred annuities was a part of the discussion of the revision of the Standard Valuation Law.
4. Revision of the Standard Valuation Law.
- a. Discussion.
- (1) There appears to be a need to vary the minimum reserve standards by type of product with respect to interest rates.
  - (2) The valuation of annuities is of particular importance with respect to pension plans, the federal Employee Retirement Income Security Act (ERISA) and the increasing presence of federal participation in the regulation of pension plans.
  - (3) The federal government is valuing pension plan assets at market value generating yield rates of around 9% while annuities can only be purchased at 6% from private insurers because of the present valuation standard.
  - (4) Valuation standards must be more conservative with respect to interest rate assumptions because of the problems of reinvestment of earnings generated by the principal fund and of reinvestment of the principal sums themselves when they mature.
  - (5) The present gap between current new money yields and the maximum permissible valuation interest rate is too great for any private insurer to compete with the federal government which is not bound by state valuation interest rate limitations.
  - (6) The problem of reinvestment of maturing assets may not exist for most current annuitants, particularly those over age 60, since they should not expect to live beyond the average maturity period of current investments. This would imply that a lower valuation interest rate should be considered for immediate life annuities commencing at younger ages and that the older the age at which an annuity is to commence, the closer the valuation rate of interest can come to the new money yield rates at commencement date of such annuities, always leaving some margin between the valuation interest rate and the new money yield rate for the risk of loss of yield upon reinvestment of interest earnings.
  - (7) It was noted that, in the typical group, early retirement prior to age 55 seldom occurs but that after that age retirement, particularly for those retiring on disability, is becoming more prevalent. If it is true that those retiring before age 60 usually do so with some form of disability, then those persons may not be expected to live as long as those retiring under normal circumstances. A request was made for statistics with respect to amounts of immediate annuities issued or initiated at various ages. It would also be helpful to know if those retiring before age 60 were disabled in some form.

- (8) The valuation of public employee plans was discussed. Some states, New York for instance, do give the insurance department responsibility for the valuation of such plans. A particular problem with these plans is certain groups (firemen, police, etc.) who retire at younger ages and are healthy.
- (9) A sufficient number of companies do not earn an aggregate yield of more than 4% on their investment portfolio to cause concern. According to the 1975 NAIC Early Warning Regulatory Tests nearly seven percent of the 1,183 companies tested had investment yields of 4% or less. The new money investment rate on these companies is not known and quite a few do not have sufficient positive cash flow so as to require investment in higher yielding investments, their only opportunity being the current maturities of previously invested assets.
- (10) The currently maximum valuation interest rate permitted on group annuities purchased before the operative date of the 1972 Amendments is 3½%. It has been suggested that this be changed to 5% and a further suggestion was made to change the mortality table assumptions to the 1971 Group Annuity Mortality Table. It was noted that 5% and the 1971 Group Annuity Mortality would not provide sufficient surplus relief from 3½% and original mortality assumption.
- (11) The wider margins proposed between the valuation and nonforfeiture value interest rate assumptions will require revival of the concept of a mandatory surrender dividend. If we do not include such a proposal then we should not propose a margin of more than ½% in the interest rate.
- (12) With respect to premium deficiency reserves it was first proposed that the premium deficiency reserves be based on the minimum reserve standards.
  - (a) It was noted that the deficiency reserve would have to be adequate together with the basic reserve to cover the guaranteed cash surrender value.
  - (b) Industry representatives proposed an aggregate test of premium deficiency reserves but the NAIC task force believed that an aggregate test would be much more difficult to regulate than the use of reserve formulas which could be verified with greater ease.
  - (c) The matter of state department of insurance variation in the interpretation of the premium deficiency reserve statute was discussed. The statute should be clarified to specify that only the excesses of valuation net premiums over gross premiums should be taken into account and no offset for excesses of gross premiums over valuation net premiums should be allowed.
  - (d) Using the minimum basis requires the CRVM net renewal premium which is higher than the valuation net premium required using the net level annual premium reserve method, a more conservative method than the CRVM. By referring to the minimum basis, a deficiency reserve might be required on plans with more conservative valuation standards.
  - (e) The previous discussion led to the conclusion that perhaps a modification of the commissioners' valuation reserve method was needed which substitutes the gross premium for the valuation net premium in the reserve formula whenever the valuation net premium exceeds the gross premium, retains the reserve method (CRVM or Net Level) originally used, uses the minimum standards of mortality table and interest rate, and which results in a reserve value which is never less than that calculated according to the methods and standards originally specified for a policy. At the conclusion of the meeting Friday there was further discussion on this approach, and it was agreed to give further thought to it.
  - (f) It was agreed to suspend further discussion on this topic on the premise that an increase in interest rates in the minimum reserve valuation standards would relieve the pressure for premium deficiency reserves at this time, and also it was agreed to postpone any action concerning premium deficiency reserves on renewable term insurance.
- (13) The subject of requiring the reserve to at least equal the cash surrender value came up during the premium deficiency reserve discussion. The NAIC Annual Statement Blank Instructions contain this requirement but there is nothing in the Standard Valuation Law on this subject. Consideration should be given to revise the Standard Valuation Law to include a provision that the greater of the terminal reserve or the cash surrender value shall be used in determining the mean reserves to be carried at the valuation rate.

b. Revisions to the Standard Valuation Law.

The American Council of Life Insurance (formerly American Life Insurance Association) presented a "Proposal to Increase the Statutory Interest Rates in the Standard Valuation and Nonforfeiture Law" (Attachment G4), and several changes to this were made in the course of discussion. The suggested changes in interest rules starting on page 3 of that proposal are (additions underlined, deletions lined through):

- (1) Increase the statutory valuation interest rate for new immediate group annuities purchased and for new single premium individual immediate annuities issued from 6% to 7½%;
- (2) Increase the statutory valuation interest rate for those group annuities purchased before the operative date of the 1972 amendments to the Standard Valuation Law from 3½% to 5%;

(Note: There was some discussion concerning going to 5% with the 1971 group annuitants' mortality table but this was not resolved by the NAIC task force.)

- (3) Increase the statutory valuation interest rate for newly issued tax qualified deferred annuities during the deferral period from 4% to: 7½% for the first ten contract years, 6% for the next ten contract years and 4½% for the 21st and later contract years;
- (4) Increase the statutory valuation interest rate for newly issued nontax-qualified individual deferred annuities during the deferral period ~~that are not tax-qualified~~ from 4% to: 6% for the first ten contract years, 5% for the next ten contract years and 4% for the 21st and later contract years;
- (5) Increase the statutory valuation interest rate for newly issued life insurance from 4% to: 5% for single premium whole life or endowment insurance and 4½% for all other plans of annual premium life insurance;
- (6) Increase the statutory nonforfeiture interest rate for newly issued life insurance from 4% to: ~~the rate of interest used in the gross premium for determining the amount of insurance~~ 7½% for single premium whole life or endowment insurance and 5% 5½% for ~~annual premium~~ all other plans of life insurance;
- (7) Remove the provisions in the Standard Valuation and Nonforfeiture Laws which stipulate that all statutory valuation interest rates shall be 3½% on and after January 1, 1986.

5. Revision of the Standard Nonforfeiture Law (August 19, 1976).

a. Discussion of the draft of C.F.B. Richardson's paper, "Expense Formulas for Minimum Nonforfeiture Values." (This paper is to be presented to the Society of Actuaries next year and will appear in the Transactions of the Society.)

- (1) All present conceded that this paper will be a landmark in actuarial literature.
- (2) It was observed that the paper offers positive proof of the excessive amount of expense provided for by the \$20 per \$1,000 face amount allowance provided for by the present Standard Nonforfeiture Value Law.
- (3) The recommended formula as presented by Mr. Richardson suggests the use of continuous functions at age nearest birthday to define the net premium to be used in determining the minimum cash value and would require only one set of minimum nonforfeiture values to be derived for each plan-age cell.
- (4) Should the revision of the Standard Nonforfeiture Value Law wait for the development of a new Commissioners' Standard Ordinary Mortality Table which is at least two years away? Discussion of this question implied that by the time the NAIC technical task force had tested the effects of various expense formulas, the effects of using mortality tables with and without margins for adverse contingencies, the effects of various patterns of interest assumptions and the effect on various plans of insurance that the construction of a new mortality table might be well along. All of these studies are needed before the NAIC technical task force can decide on the nature of the revised nonforfeiture value statute.

b. Further review of the Society of Actuaries "Report on Actuarial Principles and Practical Problems With Regard to Nonforfeiture Requirements."

- (1) This is a follow-up to the review by the NAIC technical task force presented to the NAIC in June 1976.
- (2) The use of a six year age setback for females is to be recommended only as a "stop-gap" until separate mortality tables by sex are developed. The NAIC task force had listed this as the only point upon which there was total disagreement. It now appears that for practical purposes this is the only route open at this time.
- (3) With respect to Conclusion 10 a recommendation should be made to the NAIC that the NAIC technical task force be authorized to serve as central reference source for questions regarding valuation and nonforfeiture value regulation. The NAIC Central Office should receive the questions and send them on to the chairman of the NAIC technical task force or to any member of that task force the chairman may designate. The NAIC Central Office would record the reception of such questions and monitor the status of replies.
- (4) Conclusions 18 and 19 should be put into effect with the next revision of the Standard Nonforfeiture Value Law.
- (5) The revisions in the interest assumptions currently proposed for the Standard Valuation and Standard Nonforfeiture Laws will specify a single interest rate for statutory minimum cash surrender values eliminating the linkage between valuation and policy cash surrender values (Conclusion 2). (It should be noted that, if such linkage is removed, a Corresponding Model Act is needed requiring surrender or termination dividends.)
- (6) Any current revision to the Standard Nonforfeiture Law must include the provision that: "Guaranteed paid-up insurance options should be those purchased by the cash value on any interest rate at least as high as that used for cash values" (Conclusion 22).
- (7) With respect to other conclusions with which there is substantial agreement between the NAIC technical task force and the Society of Actuaries Special Committee:

Conclusion 23 - The present law respects this conclusion, and no change is intended concerning the concept expressed by this conclusion.

Conclusion 24 - No specific expense loadings in paid-up insurance option guarantees are being considered by the NAIC technical task force. The margins incorporated either in the construction of the mortality table, or the interest rate, or both, should be sufficient to cover this.

Conclusion 25 - This conclusion cannot be fully achieved until new mortality tables are developed.

Conclusions 27 and 28 - These are being implemented by model legislation currently in preparation for adoption by the NAIC.

- (8) With respect to conclusions requiring further work, progress was noted:

Conclusion 3 - The expense allocation formula studies are proceeding as noted above in the discussion of Mr. Richardson's paper.

Conclusion 6 - The flagrant examples have been collected and will be transmitted to the Society Committee as soon as they can be assembled (probably not until after the December report to the NAIC is drafted which will be sometime after November 1, 1976).

Conclusions 8 and 9 - An exposure draft is needed which will define or categorize "multiple track," "life cycle," "cost-of-living" and other open plans and which will expound alternatives in the regulation of such plans.

Conclusions 16, 17 and 20 - Tests of triviality, the extension of term exemptions from cash values and deposit term and deposit whole life did not receive much discussion. These should be considered more when the new form of the standard nonforfeiture value law has been revised and is in the process of testing.

6. Work of NAIC Valuation Technical Advisory Committee (Discussed August 18).

This NAIC Valuation Technical Advisory Committee is awaiting the information gleaned from the annual statement blanks of defunct companies for the years just before their demise. As soon as the voluminous block of information for the Texas defunct companies is received, all of the information will be sent on to both the NAIC Valuation Technical Advisory Committee and the Life and Health Insurance Company Regulatory Tests (A3) Task Force.

Work concerning minimum surplus standards should be conducted by the NAIC Valuation Technical Advisory Committee, and the NAIC (C) Committee Technical Task Force will concern itself with more immediate problems such as the Deferred Annuity Nonforfeiture Value Model Regulation and the revision of the Standard Valuation Law with respect to interest assumptions. The work on minimum surplus standards with appropriate annual statement modifications, could result in a very powerful regulatory test which would establish for each company, based upon the entire risk structure for that company (mortality, morbidity, persistency, investments, expenses), a level of surplus below which the actual amount of capital and surplus should not fall without that company being placed under special surveillance. This would be the ultimate early warning system regulatory test.

This project is going to take a long time to complete because of such technical difficulties to be overcome as:

- (1) The determination of the nature of, and parameters defining, the various risks to be considered.
- (2) The derivation of a simple yet comprehensive set of risk contingency factors to be applied to the annual statement information to derive the minimum surplus.
- (3) The revision of information shown in the annual statement blank to provide bases to which the risk contingency factors are to be applied.

The discussion on minimum surplus also brought out these comments:

- (a) The Life and Health Regulatory Tests on defunct companies appear to show more exceptional test values two and three years before the year of demise than for the year immediately preceding demise. The conclusion was drawn that perhaps when some companies realize that they are experiencing financial difficulties, there may be an incentive for attempting to conceal this fact from the regulatory authorities and from the public.
- (b) Massive doses of surplus relief and changes in management may be symptoms of a deteriorating financial condition.
- (c) Complicated holding company transactions should be examined carefully.

7. Mortality Table Construction (Discussed August 18).

A report by Julius Vogel, Chairman of the Society of Actuaries Committee, to establish new Valuation Tables (Attachment G5) was read. There are two subcommittees of the Society Committee, one concerned with the actual construction of the tables and the other with the intention to explore the need for separate female valuation tables.

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ATTACHMENT G2

Redraft of Section 3 of the Model Individual Deferred Annuity  
Nonforfeiture Value Legislation to Incorporate the 65%/87% Formula

Section 2.3.

The minimum values as specified in sections ~~three~~ four, ~~four~~ five and ~~six~~ seven of any paid-up annuity, cash surrender or death benefits available under an annuity contract shall be based upon minimum nonforfeiture amounts as defined in this section.

- (a) With respect to contracts providing for flexible considerations, the minimum nonforfeiture amount at any time at or prior to the commencement of any annuity payments shall be equal to an accumulation up to such time at a rate of interest of three percent per annum of ~~either nonlevel or level~~ percentages of the net considerations (as hereinafter defined) paid prior to such time, decreased by the sum of (i) any prior withdrawals from or partial surrenders of the contract accumulated at a rate of interest of three percent per annum and (ii) the amount of any indebtedness to the company on the contract, including interest due and accrued, and increased by any existing additional amounts credited by the company to the contract. The net considerations for a given contract year shall be an amount not less than zero and shall be equal to the corresponding gross considerations credited to the contract during that contract year less an annual contract charge of thirty dollars and less a collection charge of one dollar and twenty-five cents per consideration credited to the contract during that contract year. ~~The nonlevel percentages of net considerations shall be sixty-five percent of the net considerations for the first contract year, eighty-five percent and eighty-seven and one-half percent of the net considerations for the second through tenth contract years and ninety percent of the net considerations for the eleventh and later contract years. Notwithstanding the provisions of the preceding sentence the percentage shall be sixty-five percent of the portion of the total net considerations for any renewal contract year which exceeds by not more than two times the highest total sum of those portions of the net considerations for any single prior contract year shall be in all prior contract years for which the percentage was sixty-five percent. The level percentages shall be eighty percent of the net considerations for each contract year.~~
- (b) With respect to contracts providing for fixed scheduled considerations, minimum nonforfeiture amounts shall be calculated on the assumption that the considerations are paid annually in advance and shall be defined as for contracts with flexible considerations which are paid annually with two exceptions.
- 1.(1) The portion of the net consideration for the first contract year to be accumulated shall be the sum of sixty-five percent of the net consideration for the first contract year plus twenty-two and one-half percent of the excess of the net consideration for the first contract year over the lesser of the net consideration for the second and third contract years.
- 2.(2) The annual contract charge shall not exceed ten percent of the gross annual consideration.
- (c) (No change is recommended to the text for this subsection).

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ATTACHMENT G3

To: Thomas J. Kelly, Chief Actuary  
New York Insurance Department

From: Robert J. Callahan, Actuarial Valuation Bureau  
New York Insurance Department

Re: Conference on August 3, 1976 With New York Advisory Committee on Reserve Requirements for Interest Rate Guarantees on Active Life Funds Held Under Group Annuity Contracts

Date: August 4, 1976

In attendance at the above-captioned meeting were: John McCoy, Metropolitan; Charles Howell, John Hancock; Carl Ohman, Equitable Life; and John Booth, American Life Insurance Association, all representing industry; and Thomas Kelly and Robert Callahan of the New York Insurance Department.

This meeting was held to discuss any points wherein the New York Insurance Department differed from either the New York Industry Advisory Committee and/or the NAIC Life Technical Subcommittee with the purpose of formulating a New York Insurance Department position which could then be presented to the NAIC Subcommittee as well as to the NAIC Life Technical Subcommittee. The discussion revolved around the following points:

- (1) Liability versus Earmarked Surplus: The NAIC Technical Subcommittee recommended an option of reporting any additional reserve required on account of the interest guarantees as either a liability or an earmarked surplus. Mr. Kelly advised that under present reserve philosophy, he proposes to require any such additional reserve be classified as a liability item.

(2) Individual versus Average Investment Year Rates: Companies with sophisticated personnel and machinery prefer the use of valuation rates based on individual year of investment. Companies without such sophistication prefer the use of approximations and averages. In the past, the New York Insurance Department used the individual approach. The New York Advisory Committee recommended averages. The NAIC Life Technical Subcommittee presented alternative procedures.

Mr. Kelly decided to advocate the use of valuation rates based on individual investment years. This will result in a separate rate for each investment year. He proposed to allow as an alternative thereto the use of approximate methods and averages subject to the approval of the Superintendent. Any circular will give only the primary procedure and will make reference to the secondary procedure without spelling out any particular approximation. All seemed in agreement on this point.

(3) Use of a Valuation Rate Level for Ten Years and 6% Thereafter versus Use of a Valuation Rate Level for Five Years Tapered Off to 6% for the Tenth and Later Years: Last year the New York Insurance Department used a rate level for five years tapered off to 6% at the end of ten years. This tapering and reduction to 6% was designed to cover the reinvestment risk. Both the New York and the NAIC Life Technical Committee advocate the use of the valuation rate be held level for ten years and then dropped to 6%. They claim the tests they made indicated a margin of  $\frac{1}{2}\%$  in the valuation rate was sufficient margin to provide for the risk of reinvestment so that for practical purposes to simplify the formula, they proposed to hold the rate level for ten years. They claim the result of using a one-half percent margin is about the same as using tapering with no margin. Mr. McCoy is to supply Mr. Kelly with further support on this point.

(4) Margin for Guarantees on Future Deposits: Neither the New York Industry Advisory Committee nor the NAIC Life Technical Subcommittee recommended any additional reserve for guarantees on future deposits. Mr. Ohman had presented some rationale and illustrations to demonstrate that the risk was less if there were guarantees in a controlled situation. Mr. Kelly was not convinced by such. Mr. Kelly requested further study in the area. In the mean time, he proposed to require an additional one-fourth percent margin in the valuation rate to be applied to funds received in 1976 carrying a guarantee of interest on future deposits. (Mr. Kelly proposed one-fourth percent rather than one-half percent in light of the approximately .25% to .32% margin result from the use of nominal rather than effect rates in the New Money Report.)

(5) The circular will be revised to explicitly include all funds pertaining to possible purchase of group annuities whether such funds are held in a separate account or in a general account, whether shown as premiums, advance premiums, auxiliary funds, etc. and whether the liability is shown in Exhibit 8 or elsewhere.

(6) The circular letter will be revised to clarify turnover rates as meaning application of the funds to purchase annuities.

(7) The circular letter will be revised to state approval of the Superintendent or Commissioner is required if a company wishes to reduce the additional reserve by the effects of assuming application of the funds and any excess of purchase price over reserve for income purchased.

(8) No reserves need be set up in advance to reflect the excess of reserve required for income purchased over the purchase price. Any difference will be provided in the year of purchase.

(9) It is anticipated that any procedure adopted this year will be used for about five years and then subject to revision (except possibly for item (4) above).

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To: Thomas J. Kelly, Chief Life Actuary  
New York Insurance Department

From: John S. McCoy, Actuary  
Metropolitan Life

Re: Reserve Requirements for Interest Rate Guarantees on Active Life Funds Held Under Group Annuity  
Contracts: Margin for Reinvestment, Interest Rate Fluctuations

This is in response to your request at yesterday's meeting for more information on the studies by the New York Industry Advisory Committee regarding the margin for reinvestment interest rate fluctuations under these interest rate guarantee arrangements.

Our approach to this study was to develop a number of investment models following the investment year principles, and to compare the average interest rates earned (on an investment in the initial year) over the periods of years with the interest rate in the initial year. The average interest rates were determined from a variety of initial interest rates and a variety of reinvestment interest rate patterns which were derived from the initial interest rate assumption. Thus, the difference between the initial interest rate (an interest guarantee) and the average interest rate earned during the projected life of the guarantee arrangement is a measure of the margin of risk in the guarantee period. A negative difference is a gain and a positive difference is a loss from the transaction. The risk charge should be adequate to cover possible losses under the reinvestment interest rate experience.

We chose as an investment model a 25 year serial bond which was assumed to provide an annual effective interest rate equal to the initial interest rate for the particular investment year cell. It was further assumed that asset turnover rates applicable to each investment year cell would follow a pattern which is roughly comparable to the average insurance company investments, and approximated as follows: 2% in the initial year, increasing  $\frac{1}{2}\%$  per year to 4% in the fifth year, then increasing 1% per year to a maximum of 7% in the 8th to 10th years. After the 10th year the rates graded downward by about  $\frac{1}{2}\%$  a year and reached a level of  $1\frac{1}{2}\%$  in the 25th year when the cell was exhausted.

An extensive set of calculations was carried out by computer for initial interest rates ranging from 6% to 10%. Reinvestment interest rates were determined from each initial rate assumption based on increasing interest rate assumptions of  $\frac{1}{4}\%$  and  $\frac{1}{2}\%$  a year to certain maxima, and on decreasing interest rate assumptions of similar amounts to certain minima. These calculations required separate investment year cells for each interest rate assumption since interest earnings and asset turnover amounts would arise each year from the residue of the initial investment cell and the residues of subsequent reinvestment cells and be reinvested in the new money cell then current. Hence, the total amount in all investment cells at a given point in time is the amount accumulated from the initial investment, and the average interest rate can be readily determined.

The following table summarizes some results of these calculations:

Initial Interest Rate	Annual Change in Rate	Ultimate Reinvestment Rate	Average Interest Rate Earned on Initial Deposit	
			Years in Accumulation Period	
			5	10
6%	+ $\frac{1}{4}\%$	14%	6.08%	6.35%
	+ $\frac{1}{2}\%$	14	6.16	6.71
8	+ $\frac{1}{4}\%$	14	8.09	8.39
	+ $\frac{1}{2}\%$	14	8.19	8.80
10	+ $\frac{1}{4}\%$	14	10.11	10.43
	+ $\frac{1}{2}\%$	14	10.21	10.86
6%	- $\frac{1}{4}\%$	2	5.92	5.66
	- $\frac{1}{2}\%$	2	5.85	5.34
8	- $\frac{1}{4}\%$	2	7.91	7.62
	- $\frac{1}{2}\%$	2	7.82	7.25
10	- $\frac{1}{4}\%$	2	9.89	9.58
	- $\frac{1}{2}\%$	2	9.79	9.17

The interest rate margins can be determined from the difference between the initial interest rate in the first column and the average interest rate earned over five or ten years. It will be noted that losses occur only with declining interest rate patterns. These illustrations indicate the extreme effect of a decline in reinvestment rates to 2%, which is highly improbable, and suggest that even in this case an interest margin of less than .5% is adequate to protect against interest rate declines which average  $\frac{1}{4}\%$  per year. Hence, the committee concluded that an interest rate margin of .5% was ample allowance for the reinvestment interest rate risk.

A shortcoming of this type of model is that the reinvestment interest rate pattern is developed from a rather crude formula. It would be preferable to have a method which generates future interest rates by a statistical approach that would give effect to fluctuations in the reinvestment interest rates over the guarantee period. I devised such a method to work up a few manual calculations of average interest rates which were derived from a frequency distribution based on interest rates from 1919 to 1975 on Moody's seasoned bonds. The method operates through a sampling procedure under which reinvestment interest rates for a succession of years are generated from an initial interest through a frequency distribution based on interest rate change ratios.

Six samples were derived from initial interest rates of 6% and 8% and they produced the following results:

Initial Interest Rate	Sample Number	Average Interest Rate Earned on Initial Deposit	
		Years in Accumulation Period	
		5	10
6%	1	5.90%	5.72%
	2	6.05	6.25
	3	6.00	5.80
	4	6.05	6.16
	5	5.90	5.85
	6	6.00	5.98
8%	1	7.86	7.58
	2	8.08	8.39
	3	8.00	7.71
	4	8.08	8.25
	5	7.88	7.67
	6	8.00	8.00

These results also indicate that a margin of .5% should be adequate to provide for the reinvestment interest rate risk, and they also suggest that probable interest rate patterns will not be as extreme as those derived by the specific formulas used in our extensive computations referred to above.

If you have any questions on this material, please give me a call.

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To: Thomas J. Kelly, Chief Actuary  
New York State Insurance Department

From: Carl R. Ohman, Vice-President and Actuary  
The Equitable Life Assurance Society of the United States

Re: Minimum Reserve Requirements for Interest Rate Guarantees Under Group Annuity Contracts: Guarantees Open to Future Contributions vs Guarantees Covering Only Existing Funds

Date: July 23, 1976

In our July 15 meeting at the Department on group annuity interest rate guarantees, you asked whether minimum reserve requirements should be the same for guarantees open to future contributions as for guarantees covering only existing funds. The sense of our meeting was that this depends upon whether the terms of the guarantee control the flow of future funds so as to avoid informed financial anti-selection.

Where the future amounts are at the discretion of the contractholder, it can be anticipated that substantial amounts will be contributed when interest rate alternatives are lower than the guaranteed rate, and that little will be contributed when alternatives are higher. However, this potential for anti-selection is at least as obvious to insurers as to contractholders, and no one present recalled hearing of such a wide-open guarantee.

The guarantees open to future contributions that are actually available in the marketplace control the inflow in several ways. Guarantees for pension plans specify a level amount of future contributions much as an individual life insurance policy specifies its premium. Guarantees for profit-sharing plans -- where annual contributions are tied to profits, and hence are volatile -- specify a level percentage of the plan's contributions. Guarantees for thrift plans accept the net of whatever amounts are directed to and withdrawn from the guarantee, provided the allocations are made solely at the direction of the individual participants.

The point was made that an open guarantee with controlled future contributions is better hedged against changes in interest rates than is a guarantee applying only to a single sum. This is so because general account investments are made for terms substantially longer than the terms of interest guarantees. Hence, when the guarantee matures and is paid off at its book value, the value of the underlying investments made with the contributions of earlier years may be either higher or lower than the payout, depending upon whether interest rates have fallen or risen, respectively. In the case of a guarantee for a single sum, the differential can be substantial; if the guarantee is for continuing contributions, however, less of the payment comes from older contributions, and the differential is muted.

Four illustrative financial workouts are included to show the magnitudes involved: they show the consequences of rising interest rates and, alternatively, falling interest rates upon a single sum contribution and, alternatively, a series of level contributions. The calculations assume a slowly rising rate of repayments from existing investments characteristic of general account investments.

These four results may be combined with two more -- the obvious results for the two contribution cases where interest rates remain level -- to form the following table:

<u>Detail Table</u>	<u>Future Interest Rates</u>	<u>Contributions Under Interest Guarantee</u>	<u>Level Equivalent Interest Rate</u>
1	Falling	Single Sum	10.21%
2	Falling	Level	9.61
3	Level	Single Sum or Level	9.00
4	Rising	Level	8.78
	Rising	Single Sum	8.06

This table shows that level equivalent interest rates for the level contribution case under either rising or falling future interest rates are closer to the level interest rate result than are level equivalent rates for the single sum case.

Variations in interest rates are not likely to be as great as shown in these illustrations, nor to continue always in one direction. Hence, these results are extremes. Nevertheless, they do reveal the ordering of results, and show that the guarantee open to controlled future contributions is safer than the closed guarantee. That is the significant point in setting reserve standards.

If you have further questions on this point, please call 554-3385. I look forward to our meeting on August 3 and trust that the New York Department can again provide leadership to NAIC consideration of this important topic.

TABLE 1 -- FALLING -- SINGLE SUM

	Years							Book	Market
	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	Value	Value
								1983	1983
Contributions	\$100.00	\$	\$	\$	\$	\$	\$	\$	\$
Investment Income	9.00	9.81	10.64	11.46	12.26	13.00	13.68	14.27	
Repayments			3.27	4.52	5.87	7.26	8.68	10.11	
Total Cash Flow to New Generation	\$109.00	\$ 9.81	\$ 13.91	\$ 15.99	\$ 18.13	\$ 20.26	\$ 22.36	\$ 24.38	\$

Funds at End of Year by Generation

1976	(9.0%)	\$109.00	\$109.00	\$105.73	\$101.50	\$ 96.43	\$ 90.64	\$ 84.30	\$ 77.55	\$ 92.24
1977	(8.5%)		9.81	9.81	9.52	9.14	8.68	8.16	7.59	8.88
1978	(8.0%)			13.91	13.91	13.50	12.96	12.31	11.57	13.31
1979	(7.5%)				15.99	15.99	15.51	14.89	14.14	15.94
1980	(7.0%)					18.13	18.13	17.59	16.88	18.58
1981	(6.5%)						20.26	20.26	19.66	21.05
1982	(6.0%)							22.36	22.36	23.20
1983	(5.5%)								24.38	24.38
Total Funds		\$109.00	\$118.81	\$129.45	\$140.92	\$153.17	\$166.17	\$179.86	\$194.13	\$217.58

Guaranteed Rate

10.21%

TABLE 2 -- FALLING -- LEVEL CONTRIBUTIONS

	Years							Book	Market
	<u>1976</u>	<u>1977</u>	<u>1978</u>	<u>1979</u>	<u>1980</u>	<u>1981</u>	<u>1982</u>	Value	Value
								1983	1983
Contributions	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$
Investment Income	9.00	18.31	27.87	37.57	47.28	56.88	66.21	75.07	
Repayments			3.27	7.78	13.60	20.75	29.20	38.93	
Total Cash Flow to New Generation	\$109.00	\$118.31	\$131.14	\$145.35	\$160.88	\$177.63	\$195.41	\$214.00	\$

Funds at End of Year by Generation

1976	(9.0%)	\$109.00	\$109.00	\$105.73	\$101.50	\$ 96.42	\$ 90.63	\$ 84.29	\$ 77.55	\$ 92.24
1977	(8.5%)		118.31	118.31	114.76	110.17	104.66	98.38	91.49	107.15
1978	(8.0%)			131.14	131.14	127.21	122.12	116.01	109.05	125.45
1979	(7.5%)				145.35	145.35	140.99	135.35	128.58	144.91
1980	(7.0%)					160.88	160.88	166.05	149.81	184.88
1981	(6.5%)						177.63	177.63	172.30	184.52
1982	(6.0%)							195.41	195.41	202.74
1983	(5.5%)								214.00	214.00
Total Funds		\$109.00	\$227.31	\$355.18	\$492.75	\$640.03	\$796.91	\$963.12	\$1138.19	\$1235.89

The level interest rate at which  $100 \bar{v}_{\overline{8}|} = 1235.89$  is 9.61%.

TABLE 3 -- RISING -- LEVEL CONTRIBUTIONS

	Years							Book Value	Market Value
	1976	1977	1978	1979	1980	1981	1982		
Contributions	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$100.00	\$
Investment Income	9.00	19.31	31.14	44.79	60.59	78.97	100.44	125.59	
Repayments			3.27	7.81	13.74	21.15	30.08	40.67	
Total Cash Flow to New Generation	\$109.00	\$119.31	\$134.41	\$152.60	\$174.33	\$200.12	\$230.52	\$266.26	\$
<u>Funds at End of Year by Generation</u>									
1976 ( 9.0%)	\$109.00	\$109.00	\$105.73	\$101.50	\$ 96.42	\$ 90.63	\$ 84.29	\$ 77.55	\$ 65.82
1977 ( 9.5%)		119.31	119.31	115.73	111.10	105.54	99.21	92.27	79.80
1978 (10.0%)			134.41	134.41	130.38	125.16	118.90	111.77	98.65
1979 (10.5%)				152.60	152.60	148.02	142.10	135.00	121.79
1980 (11.0%)					174.33	174.33	169.10	162.34	149.94
1981 (11.5%)						200.12	200.12	194.12	183.82
1982 (12.0%)							230.52	230.52	224.16
1983 (12.5%)								266.26	266.26
Total Funds	\$109.00	\$228.31	\$359.45	\$504.24	\$664.83	\$843.80	\$1044.24	\$1269.83	\$1190.24

The level interest rate at which  $100 \ddot{O}_{81} = 1190.24$  is 8.78%.

TABLE 4 -- RISING -- SINGLE SUM

	Years							Book Value	Market Value
	1976	1977	1978	1979	1980	1981	1982		
Contributions	\$100.00	\$	\$	\$	\$	\$	\$	\$	\$
Investment Income	9.00	9.81	10.74	11.85	13.16	14.72	16.58	18.80	
Repayments			3.27	4.52	5.88	7.28	8.72	10.22	
Total Cash Flow to New Generation	\$109.00	\$ 9.81	\$ 14.01	\$ 16.37	\$ 19.04	\$ 22.00	\$ 25.30	\$ 29.02	\$
<u>Funds at End of Year by Generation</u>									
1976 ( 9.0%)	\$109.00	\$109.00	\$105.73	\$101.50	\$ 96.43	\$ 90.64	\$ 84.30	\$ 77.55	\$ 65.82
1977 ( 9.5%)		9.81	9.81	9.52	9.14	8.68	8.16	7.59	6.56
1978 (10.0%)			14.01	14.01	13.59	13.05	12.40	11.65	10.28
1979 (10.5%)				16.37	16.37	15.88	15.25	14.48	13.07
1980 (11.0%)					19.04	19.04	18.46	17.73	16.37
1981 (11.5%)						22.00	22.00	21.34	20.20
1982 (12.0%)							25.30	25.30	24.60
1983 (12.5%)								29.02	29.02
Total Funds	\$109.00	\$118.81	\$129.55	\$141.40	\$154.56	\$169.28	\$185.86	\$204.65	\$185.93

Guaranteed Rate

8.06%

## ATTACHMENT G4

American Council of Life Insurance  
Draft Proposal to Increase the Statutory Interest Rates  
in the Standard Valuation and Nonforfeiture Laws  
August 16, 1976

I. Introduction and Description of the Proposal

In December 1971, the NAIC amended the Standard Valuation Law to increase the interest rates used to define minimum liabilities from 3½% to 6% for group annuities and single premium immediate annuities and to 4% for all other annuities and life insurance contracts. At the same time, the NAIC amended the Standard Nonforfeiture Law to increase the maximum interest rate that may be specified in a contract for use in calculating minimum nonforfeiture benefits from 3½% to 4%. The change recognized that the level of investment return on life insurance company investments had risen significantly since the Standard Valuation and Nonforfeiture Laws were originally adopted in the 1940's. The 1972 amendments also drew a distinction between reserves for contracts involving short term commitments in the neighborhood of 10 to 15 years and those involving commitments extending over a generation or more. For the former, a higher statutory interest rate for computing minimum reserve requirements is justified since the risks associated with yields on reinvestment many years in the future are minimal for such contracts. The higher rates allowed on group pension business by the 1972 amendments recognized the lower rate of federal income taxes paid by companies on qualified pension plan business as compared to that paid on other business.

The 1972 amendments gave life insurers relief from surplus strains caused by excessive reserve requirements, including deficiency reserves. However, long term interest rates since 1972 have advanced to even higher levels, and the relief from surplus strain obtained through the 1972 amendments has been eroded as minimum reserve standards have again become excessive. Economists generally indicate that interest rates are likely to continue to fluctuate around their current high levels for the indefinite future. Therefore, it is recommended that the statutory interest rates in the Standard Valuation and Nonforfeiture Laws again be increased to bring these laws more into line with current economic realities and with those of the foreseeable future.

A development which makes it easier to obtain a more precise evaluation of reserve liabilities is the new requirement in the NAIC Annual Statement that an opinion be given by a qualified actuary as to whether reserves "make a good and sufficient provision for all unmatured obligations of the company guaranteed under the terms of its policies." Since actuaries are required to certify to the sufficiency of reserves, the Standard Valuation law should be designed to permit more flexibility in accommodating different product designs and should serve as a minimum standard of valuation within which actuaries can tailor reserves to provide for liabilities under various types of products. The proposed increases provide for more flexibility by reflecting both the differences in reserving for short term as opposed to long term insurance liabilities and the differences in federal income tax treatment of different lines of business.

Specifically, the following changes in statutory interest rates are proposed:

- (1) Increase the statutory valuation interest rate for new group annuities purchased and for new single premium individual immediate annuities issued from 6% to 7½%;
- (2) Increase the statutory valuation interest rate for those group annuities purchased before the operative date of the 1972 amendments to the Standard Valuation Law from 3½% to 5%;
- (3) Increase the statutory valuation interest rate for newly issued tax-qualified individual deferred annuities from 4% to: 7½% for the first ten contract years, 6% for the next ten contract years and 4½% for the 21st and later contract years;
- (4) Increase the statutory valuation interest rate for newly issued individual deferred annuities that are not tax-qualified from 4% to: 6% for the first ten contract years, 5% for the next ten contract years and 4% for the 21st and later contract years;
- (5) Increase the statutory valuation interest rate for newly issued life insurance from 4% to: 5% for single premium life insurance and 4½% for annual premium life insurance;

- (6) Increase the statutory nonforfeiture interest rate for newly issued life insurance from 4% to: the rate of interest used in the gross premium for determining the amount of insurance for single premium life insurance and 5% for annual premium life insurance;
- (7) Remove the provisions in the Standard Valuation and Nonforfeiture Laws which stipulate that all statutory valuation interest rates shall be 3½% on and after January 1, 1986.

## II. Relationship Between Minimum Valuation and Nonforfeiture Standards and Product Pricing

In establishing any minimum reserve standard, there is a need to strike a proper balance between considerations of solvency and the need for companies to be able to set appropriate prices for their products. An overly conservative reserve standard causes artificial surplus strain that may overwhelm normal competition and force companies either to curtail solicitation of new business or to increase prices to generate the funds needed to meet required reserves. If minimum reserve standards are so conservative as to produce a valuation net premium that is larger than the gross premium charged for any policy or contract, an additional deficiency reserve must be established equal to the present value of the excess of net valuation premiums over gross premiums. This lessens competition by making it difficult for insurers to charge gross premiums that are lower than the valuation net premium.

The Standard Nonforfeiture Law places a statutory maximum on the interest rate that may be specified in a contract for use in calculating minimum nonforfeiture benefits. As in the case of reserves, a higher statutory interest rate permits companies to accumulate a smaller amount of funds for life insurance nonforfeiture values which allows for more competitive premium rates.

One of the principal elements of this proposal is to improve recognition of the various investment risks associated with different kinds of insurance and annuity products. Such recognition would cause the reserve standard to parallel current pricing practices. For example, not only short term contracts but many longer term contracts are priced either implicitly or explicitly on the assumption that interest earnings during the first few years will be at current high yields and then grade down gradually to lower ultimate levels. The proposal recognizes that it is appropriate under any contract to have a higher statutory valuation interest rate applicable to those funds which will be invested at higher current yields.

## III. Interest Rate Trends During the 1970's and Increased Surplus Strain

In the earlier 1970's, yields on high grade securities ranged from about 7% to 8% per annum. Subsequently, interest rates on high grade securities have risen to 8½% to 9% per annum. Yields on new investments by life insurers have also risen above the levels which prevailed in the early 1970's. An American Council of Life Insurance survey of yields on new fixed-income investments by 60 companies accounting for about 65% of assets held in general accounts of life insurance companies showed yields on new investments that averaged 9.08% in 1974 and 9.87% in 1975. The aggregate yield on life insurers' total general account investment portfolio has climbed steadily upward during the decade and is now well over 6% for all insurers combined.

An example of the surplus strain caused by requiring overly conservative reserve interest assumptions in the face of higher investment yields and competitive pricing can be illustrated by a comparison of net single premiums for a life annuity of \$100 per month to a male aged 65 on the basis of the 1971 Group Annuity Mortality Table and various interest rates. The net single premium for such an annuity calculated on the basis of the 71 GAM Table and 9% interest, which is representative of interest rates currently used in calculating group annuity rates, is \$9,205. However, the required reserves for this annuity calculated on the basis of the minimum reserve basis of 6% interest and the 71 GAM Table is \$11,122 or 21% more than the net premium used in pricing the benefit.

A similar calculation can be made for a life annuity of \$100 per month commencing at age 65 for a male now aged 55, which is a typical weighted average age in the case of annuities sold to fund terminating pension plans. In this case the net premium based on 9% interest and the 71 GAM Table is \$3,409 while the required reserve based on 6% interest and the 71 GAM Table is \$5,445 or an additional 60% above the net premium used in pricing the benefit must be established as reserves. Under the proposed group annuity reserve standards of 7½% interest and the 71 GAM Table the required reserves for the benefit described above for a male aged 65 would be \$10,079 and for a male aged 55 would be \$4,287, an increase of 9% and 26% respectively, above the net premiums used in pricing such benefits as calculated on the basis of 9% interest and the 71 GAM Table.

A similar comparison can be made with respect to already purchased group annuities which are currently valued on the basis of 3½% interest and the Group Annuity Mortality Table for 1951. Considerations for such business which were invested years ago in low yielding investments have now been reinvested at much higher yields as a result of maturities and repayments of principal and interest. The use of 6½% interest as representative of the average yield to be expected in the future on funds underlying this closed block of annuities and the Ga-51 Table produces a net single premium for a life annuity of \$100 per month to a male aged 65 of \$10,361. The required reserve for such an annuity based on 3½% interest and the Ga-51 Table is \$12,760 or 23% more than the net single premium based on a yield representative of that of the underlying investments. Under the proposed group annuity reserve standards for such business of 5% interest and the Ga-51 Table, the required reserve would be \$11,449 or 11% more than the net single premium based on a 6½% yield.

Thus, insurers are not only forced to undergo surplus strains when new group annuities are purchased but are also subject to excessive surplus strain for carrying already purchased group annuities on their books. Such strains reduce competition in the pension business by forcing insurers to incur artificial surplus losses through the requirement that reserves for this business be based on interest assumptions far below current yields on the underlying invested funds for such business.

Similar surplus strains arise from the sale of individual single premium immediate annuities and individual deferred annuities where prices are set in the realization that yields on premium income received during the next several years will be much higher than the current statutory valuation interest rates. Although the surplus strain is not quite so acute for life insurance contracts involving a longer time span over which premiums are received and benefit payments are made, a change in life insurance as well as in annuity statutory interest rates is both needed and appropriate. Since current interest earnings and expected future investment yields are an integral part of the pricing of all life insurance and annuity products, surplus strains varying in intensity by type of product are pervasive throughout the life insurance industry.

#### IV. Future Economic Trends and Expected Levels of Interest Rates

Economists today generally view long-term interest rates as consisting of two parts, a basic "real" rate of interest and an inflation premium. The basic "real" rate of interest, which reflects the interaction between the supply and demand for capital, has remained relatively stable over several decades at about 3½%. However, some economists believe that a growing capital shortage may push the basic "real" rate about one-half percent higher in future years. The capital shortage arises from greater demands for investment funds caused by the need for pollution control equipment, larger capital requirements for energy supplies needed to fulfill this country's goal of energy independence and higher replacement costs for capital equipment. Another contributing factor is the expectation of a smaller supply of savings as the U.S. experiences a demographic shift toward more young adults and families who tend to be net consumers rather than net savers.

In addition to the basic "real" rate of interest, long term interest rates include an inflation premium demanded by the lenders to compensate for the expected loss in real value of capital funds which are advanced. Therefore, a principal determining factor in the level of long term interest rates is the rate of inflation.

Most economists believe that the rate of inflation will average about 5½% per year over the next decade although this does not preclude fluctuations on either side of the average as a result of business cycles. The commitment of the federal government to economic growth and full employment even at the expense of some inflation has tended to institutionalize the process. Another factor making it difficult to reduce already existing inflation is growing use of automatic escalator clauses. Such clauses are built into wage contracts, the Social Security system, the federal food stamp program and federal retirement programs for both civilian and military employees. The fact that increases in labor costs have been about 8% a year while real increases in productivity have been in the 2½% to 3% range is an additional contributing factor to continuing inflation.

Translating expectations of inflation averaging about 5½% and a basic "real" rate of return on capital of 3½% or more into yields on high grade long term bonds leads most economists to believe that yields will be in the 8% or 9% range for the foreseeable future. In fact there is a general consensus among economists that we are unlikely ever again to see the 4% to 6% yields that characterized high grade bonds during the 1960's.

The highly regarded Data Resources, Inc. econometric study, The Capital Shortage, predicts some slight easing of yields on the highest grade corporate bonds to the 8½% to 8% range over the next four years followed by an increase in yields in the 1980's to about 9%. This projection is based on an economic model which assumes that the federal government pursues fiscal and monetary policies designed to promote steady sustained growth. Under this basic projection, demand for capital slackens somewhat until excess capacity created by the recent recession is brought back into production. As the recovery continues and capacity utilization rates rise, additional demands for capital funds will push interest rates back to the 9%

level. On the other hand, a government policy designed to accelerate economic recovery and to achieve full employment as soon as possible would create greater inflationary tendencies and could lead to credit crunches and interest rates on the highest grade corporate bonds that reach double digit levels before 1980.

One question that is asked is whether a major economic depression might develop in the foreseeable future which would bring a substantial decline in interest rate levels. Economists are generally agreed that this is unlikely, in view of strong political pressure and the existence of the economic tools to combat any major downturn in economic activity. Economists generally acknowledge that the price of government stimulation of the economy is a long run bias toward inflation. In addition, demands for technological innovation, export of capital and technology to developing nations of the world and worldwide population pressures and desires for a rising standard of living will all generate continuing demands for capital and external inflationary pressures. All of these factors point to a continuation of interest rates near their current levels.

#### V. Rationale for Statutory Interest Rate Changes for Particular Types of Life Insurance and Annuity Products

For annuity products involving short term guarantees, and the investment of premiums immediately or in the near future, it is appropriate to establish a statutory valuation interest rate which comports with yields on new investments which have a major effect on the pricing of such products. Such products include group annuities and single premium individual immediate annuities. Guarantees under these products generally involve a commitment to make benefit payments over a short specified period of time such as ten years or over the remainder of a pensioner's lifetime which averages about 15 years. Since the average maturity of new insurers' new investments is longer than the period of guarantees under such contracts, there need be little concern over investment yields on reinvestment. Therefore, a 7½% statutory valuation interest rate is proposed for new group annuities and single premium individual immediate annuities.

The change in the statutory valuation interest rate from 3½% to 5% for those group annuities which have been previously purchased under group annuity contracts recognizes that yields on the funds underlying such annuities are already substantially above the 3½% interest rate used in determining minimum required reserves. If the conservatism inherent in a 3½% valuation interest rate forces an insurer to hold back dividends from a contractholder in order to maintain redundant reserves, the contractholder may cancel the annuities, withdraw the funds and reapply them to purchase new annuities which would be subject to the current statutory valuation interest rate. Alternatively, the contractholder may place the funds with a bank trustee thereby escaping all restrictions imposed by statutory minimum reserve standards.

In order to compete effectively for the retirement savings dollar, insurers must and do recognize yields on new investments in pricing individual deferred annuity contracts. However, unlike shorter term contracts, guarantees under individual deferred annuity contracts extend to flexible payments to be received and benefits promised to be paid many years in the future at a time when there is greater uncertainty as to the level of interest rates. This uncertainty is taken into account in pricing such products by assuming that interest yields grade down over a period of years. A similar approach to setting statutory valuation interest rates would produce reserves that more accurately track the basis for pricing these products.

In proposing statutory valuation interest rates for individual deferred annuities, recognition has been given to the fact that a substantial portion of these products are sold in the tax-qualified market and that interest yields for tax-qualified products will be higher than for the nonqualified. Since the difference in federal tax charge between qualified and nonqualified annuities is smaller at lower levels of investment yields, there is less differential in proposed statutory interest rates applicable to the two types of annuities at lower interest rates. Proposed statutory interest rates for individual deferred annuities grade from a level during the first ten years equal to statutory interest rates applicable to shorter term contracts down to fairly conservative levels in later years. These are as follows:

Statutory Interest Rates Applicable to Individual  
Deferred Annuity Contracts

<u>Years Applicable</u>	<u>Tax-Qualified</u>	<u>Nontax-Qualified</u>
First 10 Contract Years	7½%	6%
Second 10 Contract Years	6%	5%
21st and Later Contract Years	4½%	4%

The considerations for establishing statutory valuation interest rates for life insurance are similar to those for establishing such interest rates for individual deferred annuities. For single premium life insurance the approach of establishing a series of statutory valuation interest grading down by duration might be used. On the other hand, since only a single premium is paid and there is no need to be concerned about the timing and level of future premium payments as under flexible payment annuities, a simpler approach is to propose an average statutory valuation interest rate for all durations of 5%.

For most annual premium life insurance, future premiums are defined at issue of the contract so that it is feasible to adopt the simpler method of establishing an average statutory valuation interest rate rather than a series of interest rates grading by duration. Even more important, however, is the fact that a graded series of statutory valuation interest rates equal to those used for nontax-qualified individual deferred annuities would produce higher reserves for life insurance policies at the later durations than the present statutory standard. This situation arises because the graded statutory valuation interest rates produce valuation net premiums which are smaller than current valuation net premiums. However, after the 20th policy year, reserves would be computed as the present value of future benefits less the present value of future valuation net premiums all based on a mortality table and 4% interest assumption which are the same as those contained in the present Standard Valuation Law. Since the new valuation premiums on this basis would be smaller, reserves would be larger for the 20th and later durations. To avoid this problem, a flat 4½% statutory valuation interest rate is proposed for annual premium life insurance. This is lower than the 5% rate proposed for single premium life insurance in recognition of the additional uncertainty of yields associated with the investment of defined premium payments many years in the future.

For annual premium life insurance nonforfeiture values a 5% statutory interest rate is proposed as the maximum interest rate that may be used in calculating minimum nonforfeiture benefits. Although historically the statutory valuation interest rate and the statutory nonforfeiture interest rate have always been the same, there is no reason why there should be a direct relationship between the two; in fact, the Society of Actuaries Special Committee on Valuation and Nonforfeiture Laws recommended that they not be tied together. If anything, the statutory valuation interest rate should be lower since it is used to determine a conservative measure of reserves to be established for future benefits. On the other hand, the statutory interest rate used in determining minimum nonforfeiture benefits determines an approximate measure of the asset share arising under a policy from past payments of premiums less the cost of protection, insurer expenses and dividends. Therefore, the statutory interest rates specified in the Standard Nonforfeiture Law is logically more closely related to the interest assumption used in determining premiums than is the statutory valuation interest rate. This relationship is strongest for single premium life insurance and is recognized in the proposed specification that the statutory nonforfeiture interest rate for this product shall be equal to the interest rate used in the gross premium to determine the amount of insurance purchased.

#### VI. Reasons to Remove Automatic 1986 Reversion From Standard Laws

The Standard Valuation and Nonforfeiture Laws now provide that all statutory interest rates will revert to 3½% on January 1, 1986. As this date approaches, it is apparent that such a change is contrary to all economic trends and if allowed to become operative will produce a surplus strain with respect to new business written after that date which will be so abrupt as to severely dislocate or curtail the sale of new life insurance and annuity products. The present provision assumes that interest rates will drop to very low levels in the mid-1980's in direct contradiction to the beliefs of most economists. For this to happen would require a reversal of the federal government's commitment to economic expansion and full employment and a significant reduction in needed capital expenditures by business, none of which are likely.

Even if interest rates were to decline, this would produce capital gains on high yielding investments already contained in insurers' portfolios. These capital gains could be used to strengthen reserves if that were necessary. Another factor to be kept in mind is that in the event interest rates decline, the aggregate yield rate on a life insurer's general account investment portfolio generally lags behind the yield rate on new investments and might even continue to rise for a few years if yields on new investments were somewhat lower than those being obtained currently. If there were a significant long term decline in interest rates, there would be ample time to adjust "new money" statutory valuation rates downward by legislation. Action would be needed in only a few key states; the reduction of statutory valuation interest rates would apply to all insurers doing business in any state enacting such reductions. Finally, the new actuarial opinion which must accompany the NAIC Statement requires the actuary to give his opinion not only as to whether reserves meet the minimum statutory standards but also as to whether reserves make good and sufficient provision for all unmatured obligations. Even without such required actuarial certification, companies did strengthen reserves in the 1940's and early 1950's when interest rates were at low levels.

Considering the many measures which can be taken to ensure adequate reserves in the event of a decline in interest rates and considering the potentially damaging effect on the availability of life insurance and annuities that would be caused by reducing statutory valuation interest rates to 3½% on January 1, 1986, it is proposed that the provisions in the Standard Valuation and Nonforfeiture Laws which make such a reduction automatic be removed.

### VII. Present Statutory Reserve Requirements Prevent Insurers From Competing With the Federal Government to Insure Terminating Pension Plans

Prior to the passage of the Employees Retirement Income Security Act of 1974 (ERISA), terminating pension plans had as an alternative to annuity purchase the dissipation of a wasting trust, with uncertainty running for a generation or more as to whether the uninsured pension fund would be inadequate or excessive. However, ERISA severely restricted the possibility of using a wasting trust and created the Federal Pension Benefit Guarantee Corporation (PBGC) to become an insurance company for terminating pension plans, plus pushing terminating plans toward the insured route. The PBGC has often said that they do not want to preempt private institutions, and would prefer to be only the insurer of last resort. Unfortunately, the current annuity reserve requirements for private carriers are so restrictive that the PBGC is now effectively the only insured resort.

Under ERISA, a terminating pension plan values its assets and liabilities according to PBGC rules. Assets are valued, essentially, at market; if the plan can in fact convert them to cash for a better value, it is free to do so. Liabilities are priced at rates which are in line with those of the major carriers; if the plan can get a better price from a private carrier, it is free to do so. Finally, whatever protected benefits have not been placed under guarantee with a commercial carrier must be taken over by the PBGC at its price (and the PBGC can reach up to 30% of the plan sponsor's net worth, in addition to existing plan assets, in order to get its price).

The PBGC must accept terminating plans with assets less than liabilities. However, the PBGC would like to require that, when assets at least equal liabilities -- the "sufficient plan" case -- the plan must seek a commercial quotation. However, as noted on page 7 above, under existing reserve requirements competitive pricing for terminated plan business may typically result in a surplus strain to the writing insurer of 60% of the net considerations. Such excessive surplus strains have dried-up commercial alternatives to federal insurance of terminating pension plans, whether sufficient or not.

The forced success of the PBGC and the evident incapacity of commercial insurers to offer competitive contracts to terminated plans may lead to a mandate for the PBGC to offer Individual Retirement Accounts also, or for a federal government agency, unhampered by state reserve requirements, to offer a full range of annuity products. Clearly, it is essential that minimum reserve requirements be set at appropriate levels to enable private insurers to compete effectively with the federal government in insuring terminated pension plans.

### VIII. Summary and Conclusion

There is an immediate need to recognize current economic realities in the statutory interest rates specified in the Standard Valuation and Nonforfeiture Laws. Failure to do so will continue the requirement of redundant reserves and the resulting artificial surplus strain leading to reduced competition in price or availability of life insurance and annuity products. Another needed revision is further refinement of the structure of statutory valuation interest rates to parallel more accurately the impact of current and future yields on the pricing of life insurance and annuity products.

Most economists are in agreement that pressures for an expanding economy, full employment and capital funds to meet the demands for technological change, for pollution control and for energy independence will keep interest rates well above the levels obtained prior to 1974. Investments made by life insurance companies in this financial setting would command rates in the 8% to 9% range for the foreseeable future. If there is a significant decline in interest rates at some future time, there exist ample procedures and opportunities to ensure that reserves are established at levels which would appropriately reflect any change in the pattern of interest rates. Finally, an updating of the valuation laws is needed to enable private insurers to compete effectively with the federal government to avoid a federal takeover of the insurance of terminated pension plans. Therefore, it is proposed that the Standard Valuation and Nonforfeiture Laws be modified as indicated in the enumerated changes proposed in the introduction. Suggested amendatory language is attached.

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ACLI Draft Proposed Changes  
in the Standard Valuation Law  
March 16, 1976

## Section 3.

Amend the first two sentences to read as follows:

3. Except as otherwise provided in section three-a, the minimum standard for the valuation of all such policies and contracts issued prior to the effective date of this Act shall be that provided by the laws in effect immediately prior to such date except that annuities and pure endowments purchased under group annuity and pure endowment contracts issued prior to such effective date may be valued using an interest rate of not more than five percent (5%) interest. Except as otherwise provided in section three-a, the minimum standard for the valuation of all such policies and contracts issued on and after the effective date of this Act shall be the Commissioners' reserve valuation method defined in section four, five percent (5%) interest for Group Annuity and Pure Endowment contracts and three and one-half percent (3½%) interest for all other such policies and contracts, or in the case of policies and contracts, other than annuity and pure endowment contracts, issued on or after (insert effective date of 1972 NAIC Amendments to the Standard Valuation Law) [the effective date of this amendatory Act of 197 and prior to January 1, 1986], four percent (4%) interest for such contracts issued prior to the effective date of this amendatory Act of 197 , five percent (5%) interest for single premium life insurance and four and one-half percent (4½%) interest for annual premium life insurance issued on or after the effective date of this amendatory Act of 197 , and the following tables:

## Section 3-a.

Amend this section to read as follows:

- 3-a. The minimum standard for the valuation of all individual annuity and pure endowment contracts issued on or after the operative date of this section three-a, as defined herein, and for all annuities and pure endowments purchased on or after such operative date under group annuity and pure endowment contracts, shall be the Commissioners' reserve valuation method defined in section four and the following tables and interest rates:
- (a) For Individual Annuity and Pure Endowment contracts issued prior to the effective date of this amendatory Act of 197 [January 1, 1986], excluding any disability and accidental death benefits in such contracts -- the 1971 Individual Annuity Mortality Table, or any modification of this table approved by the Commissioner, and six percent (6%) interest for single premium immediate annuity contracts, and four percent (4%) interest for all other individual annuity and pure endowment contracts.
- (b) For Individual Annuity and Pure Endowment contracts issued on and after the effective date of this amendatory Act of 197 , excluding any disability and accidental death benefits in such contracts -- the 1971 Individual Annuity Mortality Table, or any modification of this table approved by the Commissioner, and seven and one-half percent (7½%) interest for single premium immediate annuity contracts, and the following interest rates for all other individual annuity and pure endowment contracts:
- (i) For individual annuity and pure endowment contracts issued in connection with retirement plans which qualify for special tax treatment under the United States Internal Revenue Code, seven and one-half percent (7½%) interest for the first ten contract years, six percent (6%) interest for the next ten contract years, and four and one-half percent (4½%) interest for the twenty-first and later contract years; and
- (ii) For all other individual annuity and pure endowment contracts, six percent (6%) interest for the first ten contract years, five percent (5%) interest for the next ten contract years, and four percent (4%) interest for the twenty-first and later contract years.

- (b) For individual Annuity and Pure Endowment contracts issued on or after January 1, 1986, excluding any disability and accidental death benefits in such contracts -- the 1971 Individual Annuity Mortality Table, or any modification of this table approved by the Commissioner, and three and one-half percent (3½%) interest.]
- (c) For all annuities and pure endowments purchased prior to the effective date of this amendatory Act of 1977 [January 1, 1986] under group annuity and pure endowment contracts, excluding any disability and accidental death benefits purchased under such contracts -- the 1971 Group Annuity Mortality Table, or any modification of this table approved by the Commissioner, and six percent (6%) interest.
- (d) For all annuities and pure endowments purchased on or after the effective date of this amendatory Act of 1977 under group annuity and pure endowment contracts, excluding any disability and accidental death benefits purchased under such contracts -- the 1971 Group Annuity Mortality Table, or any modification of this table approved by the Commissioner, and seven and one-half percent (7½%) interest.
- (d) For all annuities and pure endowments purchased on or after January 1, 1986 under group annuity and pure endowment contracts, excluding any disability and accidental death benefits purchased under such contracts -- the 1971 Group Annuity Mortality Table, or any modification of this table approved by the Commissioner, and three and one-half percent (3½%) interest.]

After (insert effective date of 1971 NAIC Amendments to the Standard Valuation Law) [the effective date of this amendatory Act of 1977 ], any company may file with the Commissioner a written notice of its election to comply with the provisions of this section after a specified date before January first, nineteen hundred and seventy-nine, which shall be the operative date of this section for such company, provided, a company may elect a different operative date for individual annuity and pure endowment contracts from that elected for group annuity and pure endowment contracts. If a company makes no such election, the operative date of this section for such company shall be January first, nineteen hundred and seventy-nine.

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ACLI Draft Proposed Changes  
in the Standard Nonforfeiture Law  
August 16, 1976

Section 5-a.

Amend the first sentence to read as follows:

- 5-a. In the case of Ordinary policies issued on or after the operative date of this section five-a as defined herein, all adjusted premiums and present values referred to in this Act shall be calculated on the basis of the Commissioners' 1958 Standard Ordinary Mortality Table and the rate of interest specified in the policy for calculating cash surrender values and paid up nonforfeiture benefits provided that such rate of interest shall not exceed three and one-half percent (3½%) per annum except that a rate of interest not exceeding four percent (4%) per annum may be used for policies issued on or after (insert effective date of 1971 NAIC Amendments to the Standard Nonforfeiture Law) [the effective date of this amendatory Act of 1977 and prior to January 1, 1986] and prior to the effective date of this amendatory Act of 1977 and a rate of interest not exceeding five percent (5%) per annum may be used for policies issued on or after the effective date of this amendatory Act of 1977, except that any single premium life insurance policy shall provide that any cash surrender value available under such policy shall be calculated on the basis of the mortality table and rate of interest used in the gross premium for determining the amount of such single premium life insurance and provided that for any category of Ordinary insurance issued on female risks, adjusted premiums and present values may be calculated according to an age not more than six [three] years younger than the actual age of the insured.

## Section 5-b.

Amend the first sentence to read as follows:

- 5-b. In the case of Industrial policies issued on or after the operative date of this section five-b as defined herein, all adjusted premiums and present values referred to in this Act shall be calculated on the basis of the Commissioners' 1961 Standard Industrial Mortality Table and the rate of interest specified in the policy for calculating cash surrender values and paid-up nonforfeiture benefits provided that such rate of interest shall not exceed three and one-half percent (3½%) per annum, except that a rate of interest not exceeding four percent (4%) per annum may be used for policies issued on or after (insert effective date of 1972 NAIC Amendments to the Standard Nonforfeiture Law) [the effective date of this amendatory Act of 197 and prior to January 1, 1986] and prior to the effective date of this amendatory Act of 197 and a rate of interest not exceeding five percent (5%) per annum may be used for policies issued on or after the effective date of this amendatory Act of 197, except that any single premium life insurance policy shall provide that any cash surrender value available under such policy shall be calculated on the basis of the mortality table and rate of interest used in the gross premium for determining the amount of such single premium life insurance.

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## ATTACHMENT G5

To: John O. Montgomery  
State of California  
Department of Insurance

From: Julius Vogel  
Senior Vice-President in Charge of Northeastern Operations  
The Prudential Insurance Company of America

Re: Society of Actuaries Committee to Establish New Valuation Tables

Date: August 9, 1976

This is a brief progress report on the work of the Committee to Establish New Valuation Tables. The committee has been formed by the Society of Actuaries, and its membership is as follows: Julius Vogel, Chairman; Charles A. Ormsby, Vice-Chairman; Neil M. Anderson; Wilbur M. Bolton; Waid J. Davidson Jr.; Kenneth P. Hindsdale; Hodge L. Jones Jr.; J. Clunas McKibbin; William K. Nicol; Gary N. See; Joseph C. Sibigroth; C. David Silletto; James T. Stewart; William A. White.

We have formed two subcommittees. One, under Joe Sibigroth's direction, will deal with the actual assembly of experience and development and testing of new valuation tables.

The other subcommittee is intended to explore the need for separate female valuation tables, nonforfeiture values, dividend scales, etc., as distinguished from recognition of sex by simpler means such as nonparticipating premium differentials or age differentials. Dave Silletto is chairman of this second subcommittee.

I have distributed a large amount of background material to the members of the full committee, including your letter of September 9, 1975 to Lambert Trowbridge. Right now the committee is considering, by mail, some of the immediate questions that arise, such as the amount of experience to be included, the tests to be made, the effect of mortality margins, the very purpose of a new valuation table, etc.

Our first meeting of the entire committee is scheduled for October 12. We will certainly keep you informed as this job develops.

\*\*\*\*\*

## ATTACHMENT H

Valuation and Nonforfeiture Value  
Regulation (C) Technical Task ForceSt. Paul, Minnesota  
October 13-15, 1976

The NAIC (C) Committee Technical Task Force on Valuation and Nonforfeiture Value Regulation met at the Radisson St. Paul Hotel, St. Paul, Minnesota on October 13-15, 1976. The activities of the task force with respect to the various NAIC subcommittees reporting to the (C) Committee, are described in attachments to the December 1976 Report prepared for each of the (C) Committee Subcommittees ((C1), (C2), (C3), and (C4)), by the technical task force.

The meeting Wednesday, October 13, was a part of the (C2) Long Term Credit Insurance Task Force meeting and concerned primarily the development of the Credit Disability Morbidity Study so as to provide tables of disability claim costs per \$100 initial indebtedness by plan and class of risk. The meeting Thursday, October 14, commenced at 8:30 a.m. and adjourned at 6:30 p.m. with a special drafting session from 8:00 p.m. until midnight. The meeting Friday, October 15, commenced at 8:00 and adjourned at 2:00 p.m. without taking time for lunch.

Members of the NAIC technical task force attending were: John O. Montgomery, Chairman, California; W. Keith Sloan, Arkansas; Erma Edwards, Nevada; Robert J. Callahan, New York (October 13); Thomas J. Kelly, New York (October 14, 15); William Burns, North Dakota; J. Ramon Estefania, South Carolina (October 14, 15); Woody Pogue, Texas; LaMar Walker, Utah (October 14, 15); Bradford S. Gile, Wisconsin.

Representative of other state insurance departments present were: Hon. H. Pete Hudson, Indiana (October 13); Jay Koleski and George Saarloos, Minnesota (October 13, 14).

For the Society of Actuaries Committee on Valuation Laws: Charles Greeley, Metropolitan (October 14, 15); Dick Miller, Southwestern Life.

For the American Council of Life Insurers: Richard V. Minck; John K. Booth.

For the Health Valuation Advisory Committee: E. Paul Barnhart, Consultant, Chairman (October 15).

For the Health Nonforfeiture Value Advisory Committee: Ernie Frankovich, George V. Stennes & Associates, Chairman; Anthony J. Houghton, Nelson & Warren.

Other interested persons attending were: Dave Green, Nelson & Warren (October 14); Dirk Kling, IDS Life (October 14); Carl R. Ohman, Equitable Life of New York (October 14); Larry Peterson, AID Association for Lutherans; Paul Quinn and Tom Walsh, Teachers Insurance and Annuity Association.

Subjects discussed (details given in the December 1976 Report) were:

## A. For the (C1) Accident and Health Insurance Subcommittee October 15 meeting.

1. The Nelson & Warren 1974 Individual Health Tables.
2. Report of the Health Valuation Technical Advisory Committee.
3. Society of Actuaries Activities.
4. Stop-Gap Disability Income Claim Cost Table.
5. The problem of determining the date a claim is incurred.
6. Standards for review and filing of accident and health premium increases (this topic does not come under the present authority of the task force).
7. Return of premium benefit reserves.

B. For the (C3) Credit Insurance Subcommittee.

1. The development of a credit disability claim cost table by class of risk as well as by plan.
2. The formation of technical advisory committee to advise and assist the task force in this endeavor.

C. For the (C3) Life Insurance Subcommittee.

1. The drafting of the Individual Deferred Annuity Standard Nonforfeiture Law.
2. The revision of interest standards for minimum reserves and nonforfeiture values.
3. The development of an appropriate reserve method with respect to reserves for excess interest guarantees on individual deferred annuities.
4. The valuation of policy reserves when the valuation net earnings premium exceeds the gross premium for any policy year.

D. For the (C4) Variable Life Insurance and Variable Annuities Subcommittee.

No topics were discussed at this meeting with reference to variable products. When the NAIC adopts the recommended changes in the Standard Valuation and Nonforfeiture Laws, then the technical advisory committee with respect to the valuation of variable products will make a study to determine what changes in the variable products statutes will be needed.

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Life Insurance Cost Comparison (C3) Task Force

Phoenix, Arizona  
December 8, 1976

Since the June 1976 meeting of the NAIC, the Life Insurance Cost Comparison (C3) Task Force has directed its efforts and studies to two areas of immediate concern.

The first is the study of life insurance dividend practices with the goal of a model regulation directed toward the control of dividend illustrations and dividend payments both to insure equity between policyholders and to insure that prospective policyholders can compare the cost indexes of participating policies.

The second study concerns the development and recommendation of a separate disclosure system for annuities and deposit funds. The ultimate goal being the development of a model regulation directed toward helping a prospective purchaser improve his understanding of the basic features available and enhance his ability to evaluate the relative benefits in similar plans.

In furtherance of these two studies, a task force meeting was held in St. Louis, Missouri on July 26 and 27. Results of the meeting are summarized as follows.

1. Life Insurance Dividend Practices

Members of the new Committee on Dividend Philosophy established by the Society of Actuaries and other interested persons present supplied the task force with a wide difference of opinion as to dividend practices particularly in the area of the relatively new investment year method of illustrating dividends. Other statements made indicate the continued existence of a broad range of strong feelings both within the ranks of regulators and within various factions of the life insurance industry both to the direction the task force should proceed and to what extent the efforts of the committee and task force can be coordinated.

As a result, it will probably be some time before the task force can combine the widely diverse views and reach a compromise on the form of a proposed regulation. The task force will welcome any and all assistance in achieving this ambitious goal in as short a time as possible.

## 2. Disclosure System for Annuity and Deposit Funds

At the request of the task force, the ACLI drafted and submitted for our study, an initial proposal for a Model Annuity and Deposit Fund Disclosure Regulation. The proposal closely follows the format of the recently approved NAIC Model Life Insurance Solicitation Regulation. With the rapid expansion and wide range of annuities and deposit funds available in the marketplace, the task force is in general agreement that this project can be finished in time for the June 1977 NAIC meeting.

Hon. Herbert W. Anderson, Chairman, Iowa; Hon. William H.L. Woodyard III, Arkansas; Hon Harold Wilde Jr., Wisconsin; Hon. Dick L. Rottman, Nevada; Hon. James J. Sheeran, New Jersey.

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### Life Insurance Replacement Regulation (C3) Task Force

Phoenix, Arizona  
December 8, 1976

At the annual meeting of the National Association of Insurance Commissioners in New Orleans, Louisiana, on June 8, 1976, the Life Insurance (C3) Subcommittee appointed Director E. Benjamin Nelson, Nebraska, to chair a Life Insurance Replacement Regulation Task Force. Other members appointed at that time were Missouri, Indiana and Utah. Nevada has since been named to complete the task force. The task force is charged with the responsibility of reviewing the current model replacement regulation to determine its effectiveness and if improvement is required, to draft a revised replacement regulation for submission to the (C3) Subcommittee.

The first meeting of the task force was held on August 20, 1976, in Omaha, Nebraska. The task force discussed various problems that policyholders, agents, companies and regulators were having with the replacement of life insurance and how those problems related to the current model regulation. A summary of the problems were sent out to regulators, educators and industry members for discussion at the second meeting of the task force.

The task force met next in St. Louis, Missouri on September 16-17, 1976, and heard reports and comments from industry members and other interested parties concerning any proposed changes in the regulation.

The third task force meeting was held in St. Paul, Minnesota, on October 11-12, 1976, and was primarily a drafting meeting to complete a preliminary draft of a new replacement regulation. The attached preliminary draft reflects the thinking of the committee which has attempted to emphasize disclosure in the new replacement format. The task force has attempted to require the disclosure of all pertinent facts concerning the sale of new life insurance including the status of the policy subject to replacement. Many proposed changes appear in the preliminary draft which are keyed not only to more pertinent disclosure but to more timely disclosure as well. The task force favors some type of cost disclosure but has been unable to develop any formula which would be appropriate for cost comparison in replacement situations.

The next meeting of the task force will be at the NAIC Regular Meeting in Phoenix, Arizona on December 7, 1976. The proposed agenda will include comments from industry members and other interested persons concerning the preliminary draft with emphasis on pertinent disclosure and appropriate cost comparisons. It is anticipated that the task force will meet several times after the Phoenix meeting for drafting purposes in order to submit a final draft of the new Replacement Regulation at the NAIC Annual Meeting.

Hon. E. Benjamin Nelson, Chairman, Nebraska; Hon. Henry W. Edmiston, Missouri; Hon. H. Pete Hudson, Indiana; Hon. Dick L. Rottman, Nevada; Hon. Clifton N. Ottosen, Utah.

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Draft Proposed Life Insurance  
Replacement Model Regulation

Section 1. Statutory Authority.

This regulation is promulgated by the insurance \_\_\_\_\_ pursuant to Section \_\_\_\_\_ of the insurance laws of \_\_\_\_\_, which authorizes the insurance \_\_\_\_\_ to make all reasonable rules and regulations to administer the insurance laws of \_\_\_\_\_.

Section 2. Purpose.

The purpose of this regulation is:

- (1) To implement the insurance laws of \_\_\_\_\_ by regulating the acts and practices of insurers and agents with respect to life insurance replacing life insurance under Sections \_\_\_\_\_ and \_\_\_\_\_ of the insurance laws of \_\_\_\_\_.
- (2) To protect the interests of the life insurance public by establishing minimum standards of conduct to be observed in the replacement or proposed replacement of life insurance policies; by making available full and clear information on which an applicant for life insurance can make a decision in his own best interests; by reducing the opportunity for misrepresentation and incomplete comparison in replacement situations; and by precluding unfair methods of competition and unfair practices.

Section 3. Replacement of Life Insurance Defined.

The replacement of life insurance which, as used in this regulation, includes annuity and variable contracts, is defined as any transaction, not exempted in Section 4, below,

- (A) Wherein new life insurance is to be purchased and it is known to the agent or the agent has reason to believe that, as part of the transaction, existing life insurance has been or is to be;
- (B) Or it is known to the agent or the agent has reason to believe that, as part of the transaction, existing life insurance has been or is to be:
  - (1) Lapsed or surrendered;
  - (2) Converted into paid-up insurance, continued as extended term insurance, or under another form of nonforfeiture benefit;
  - (3) Converted otherwise so as to effect a reduction either in the amount of the existing life insurance or in the period of time the existing life insurance will continue in force;
  - (4) Reissued with a reduction in amount such that substantial cash values are released. ("Substantial cash values" include all transactions wherein an amount in excess of 50% of the tabular cash value is to be released on one or more of the existing policies.)~~;~~ ~~or~~
  - (5) Assigned as collateral for a loan or subjected to substantial borrowing of the loan values whether in a single loan or under a schedule of borrowing over a period of time. "Substantial borrowings" include all transactions wherein an amount in excess of 50% of the tabular cash value is to be borrowed on one or more existing policies;~~;~~ or
  - (6) The termination of a pending application, when such application has been accompanied by an advance premium deposit for which a conditional advance premium receipt has been delivered to the applicant.

Section 4. Exemptions.

This regulation shall not apply when:

- (1) The application for the new life insurance is made to the same insurer that issued the existing life insurance and a contractual policy change or conversion privilege is being exercised;

- (2) ~~The new life insurance is provided under (i) a group term life insurance policy; (ii) a policy whose cost is borne in whole or in part by the insured's employer or by an association of which the insured is a member, a group policy covering debtors of a creditor sold in connection with a credit transaction; (iii) policies covering employees of an employer, debtors of a creditor, or members of an association, which are distributed on a mass-merchandising basis and administered by group-type methods; or the total cash surrender value of all existing policies which would be affected by the replacement is less than \$250 and the sum of their face amount is less than \$2,000; or (iv) life insurance policies issued in connection with a pension, profit-sharing or other benefit plan qualifying for tax deductibility of premiums; provide, however, that as to any plan described in this subsection, full and complete disclosure of all material facts shall be given to the administrator of any plan to be replaced, no sales agency force is used by the insurer and all sales material is standard and printed and presented by direct mail or advertising;~~
- (3) ~~The existing life insurance is a nonconvertible term policy with five years or less to expire and which cannot be renewed. The existing life insurance is a level-term policy of not more than 15 years initial duration, or is a reducing term policy.~~

#### Section 5. Duties of Agent.

Each life insurance agent shall:

- (1) Obtain with or as part of each application for life insurance a statement signed by the applicant as to whether such insurance will replace existing life insurance;
- (2) Submit to the insurer in connection with each application for life insurance a statement as to whether, ~~to the best of his knowledge,~~ he knows or has reason to believe replacement is involved in the transaction;
- (3) Where a replacement is involved:
- obtain with or as part of each application a list of all existing life insurance policies ~~proposed to be replaced;~~
  - present to the applicant, not later than at the time of taking the application, a completed "Comparison Statement" "Disclosure Statement" signed by the agent and a "Notice to Applicants Regarding Replacement of Life Insurance" in form substantially as described in Exhibits A and B and leave such forms with the applicant for his records;
  - submit with the application to the insurer a copy of any proposal used and a completed "Comparison Statement" "Disclosure Statement" and the name of each insurer which issued any insurance being replaced;
  - have the applicant acknowledge receipt of the completed "Comparison Statement" "Disclosure Statement" and the "Notice to Applicants Regarding Replacement of Life Insurance;"
  - no later than at the time of taking the application and before coverage becomes effective, notify the designated local general agent or principal office of the insurer whose insurance is being replaced, by registered or certified mail, and furnish to the local general agent or principal office, a copy of any proposal used and the completed "Disclosure Statement."
- (4) Where retention or conservation due to a replacement is involved, an agent of the present insurer who suggests that existing insurance not be replaced, shall furnish the policyholder within three days of making the suggestion, a written statement setting forth [all the pertinent facts bearing on] the advantages and the disadvantages of his suggestion, and shall promptly forward a copy of his written statement to the present insurer.

#### Section 6. Duties of Insurers.

Each insurer shall:

- (1) Inform its field representatives of the requirements of this regulation;
- (2) Require with or as part of each application for life insurance a statement signed by the applicant as to whether such insurance will replace existing life insurance;

- (3) Require in connection with each application for life insurance a statement signed by the agent as to whether, ~~to the best of his knowledge, he knows or has reason to believe~~ replacement is involved in the transaction;
- (4) Where a replacement is involved:
- (a) require with or as part of each application a list prepared by the agent representing, to the best of his knowledge, all of the existing life insurance policies ~~proposed to be replaced~~;
  - (b) obtain a copy of any proposal used, the completed ~~"Comparison Statement"~~ "Disclosure Statement," proof of the receipt by the applicant of the "Notice to Applicants Regarding Replacement of Life Insurance" and the name of each insurer whose insurance is being replaced;
  - (c) ~~immediately~~ notify any insurer whose insurance is being replaced and ~~upon request promptly~~ furnish a copy of any proposal used and a completed ~~"Comparison Statement,"~~ "Disclosure Statement" within three working days from the date of receipt of the application;
  - (d) examine any proposal used and the completed ~~"Comparison Statement"~~ "Disclosure Statement" and ascertain that the latter meets the requirements of this regulation;
  - (e) maintain copies of any proposal used and the completed ~~"Comparison Statement"~~ "Disclosure Statement," proof of receipt by the applicant of the "Notice to Applicants Regarding Replacement of Life Insurance" and the applicant's signed statement with respect to replacement in its home office for at least three years or until the conclusion of at least three years or until the conclusion of the next succeeding regular examination by the insurance department of its state of domicile, whichever is later.;
  - (f) designate a local general agent or principal office to receive the notice of replacement and a copy of the completed "Disclosure Statement." The insurer shall notify in writing its designated local general agent or principal office to the ( ) Insurance Department.
- (5) Assume responsibility for the accuracy of the information disclosed by its field representatives on any proposal and completed "Disclosure Statement."

Any insurer which receives notice that its existing insurance may be replaced shall maintain copies of such notification on its premises, indexed by insurer notifying it of such replacement, for three years or until the conclusion of the next regular examination conducted by the insurance department of its state of domicile, whichever is later.

#### Section 7. Options to Policyholder.

- (1) Every individual to whom a policy of life insurance has been issued shall have the right to return the policy within ten days of its delivery and to have the premium paid refunded, if, after examination of the policy, the insured is not satisfied with it for any reason.
- (2) When an agent has failed to deliver a "Disclosure Statement" or where it is misleading or incomplete, the proposed insured has the right to request rescission of the new policy 20 days after receipt of the policy. Any costs relating to the rescission action by the issuing company are not to be borne by the applicant.

#### Section 7 8. Penalties.

- (1) Any insurer, agent, representative, officer or employee of such insurer failing to comply with the requirements of this regulation shall be subject to such penalties as may be appropriate under the Insurance Laws of \_\_\_\_\_.
- (2) Policyholders have the right to replace existing life insurance after indicating in or as part of the applications for life insurance that such is not their intention; however, patterns of such action by policyholders of the same agent shall be deemed prima-facie evidence of the agent's knowledge that replacement was intended in connection with such transactions, and such patterns of action shall be deemed prima-facie evidence of the agent's intent to violate this regulation.

Section ~~8~~ 9. Exhibits.

- (1) The forms set forth in the following Exhibits A and B are hereby approved for use as specified in this regulation. ~~Substantially equivalent forms may be adopted with the prior approval of the Insurance \_\_\_\_\_ To the extent that the forms in Exhibit A and B are not entirely appropriate for replacements involving annuity contracts, the company shall have the responsibility of adapting these forms to fit annuity cases when they arise.~~

Section ~~9~~ 10. Effective Date.

This regulation shall become effective on \_\_\_\_\_.

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EXHIBIT A

COMPARISON DISCLOSURE STATEMENT

Name of Applicant \_\_\_\_\_

Address \_\_\_\_\_  
 Street City State Zip Code

Name of Insured if other than Applicant \_\_\_\_\_

Date of Birth of Insured \_\_\_\_\_

1. --- COMPARATIVE INFORMATION

1. Item	†Existing Life Insurance	Proposed Life Insurance
Policy Number	_____	_____
Insurance Company	_____	_____
Amount of Basic Insurance		
Currently	\$ _____	\$ _____
10 Years Hence	\$ _____	\$ _____
20 Years Hence	\$ _____	\$ _____
At Age 65	\$ _____	\$ _____
Basic Plan of Insurance	_____	_____
Present Amount of Term Rider(s)		
<u>10 Years Hence</u>	\$ _____	\$ _____
<u>20 Years Hence</u>	\$ _____	\$ _____
<u>At Age 65</u>	\$ _____	\$ _____
<u>Accidental Death Benefit</u>	\$ _____ monthly	\$ _____ monthly
	to age _____	to age _____
<u>Family Income or Increased Protection Rider</u>	\$ _____	\$ _____
Issue Age	_____	_____
Issue Date	_____	_____

Premium For:	Prem.	Yr. Prem. Payable to	Year Coverage Ceases	Prem.	Yr. Prem. Payable to	Year Coverage Ceases
Basic Policy	\$ _____	_____	_____	\$ _____	_____	_____
*Accidental Death Benefit	_____	_____	_____	_____	_____	_____
*Waiver of Premium Benefit	_____	_____	_____	_____	_____	_____
*Disability Income Benefit	_____	_____	_____	_____	_____	_____
Family Income or Increased Protection Rider	_____	_____	_____	_____	_____	_____
Option to Purchase Additional Insurance	_____	_____	_____	_____	_____	_____
Other Benefits (Explain)	_____	_____	_____	_____	_____	_____
Total Current Premium	\$ _____	_____	_____	\$ _____	_____	_____
Frequency of Premium Payment	_____	\$ _____	_____	\$ _____	_____	_____

\*If Premium for Benefits: (A) is not separable from basic policy premium, insert "Included in Basic Policy Premium," or (B) is an aggregate premium, show the aggregate premium.

†If more than one existing life insurance policy is to be affected by a transaction included within the definition of a replacement contained in Section 3 of the Regulation: (1) the existing life insurance column of a separate signed Comparison Disclosure Statement form must be completed for each such policy providing the information required by the form with respect to existing policies, and (2) a separate signed Comparison Disclosure Statement form must be completed for the proposed policy. The latter form must summarize, to the extent possible, the information concerning the existing policies set forth on the separate forms, and must include the information required in Sections 2 through 5 of the Comparison Disclosure Statement.

	†Existing Life Insurance	Proposed Life Insurance
Tabular Cash Values		
At Present	\$ _____	\$ _____
1 Year Hence	_____	_____
5 Years Hence	_____	_____
10 Years Hence	_____	_____
At Age____(Highest age shown in Cash Value Table of existing policy)	\$ _____	\$ _____
Cash Value of any existing dividend additions or accumulations (if available from the applicant)	\$ _____	\$ _____
Amount of Loan Now outstanding, if any	\$ _____	\$ _____
Rate of Loan Interest	_____ %	_____ %
Amount of Annual Loan Interest	\$ _____	\$ _____
Date Contestable Period Expires	_____	_____
Date Suicide Clause Expires	_____	_____
Dividends**		
Is Policy Participating ?	_____	_____
Annual Dividend (current scale)	_____	_____
1 Year Hence	_____	_____
2 Years Hence	_____	_____
5 years hence	_____	_____
10 Years hence	_____	_____
Total 10 years	\$ _____	\$ _____
<u>Current Interest Rate on Dividends on Deposit</u>	_____	_____

2. Advantages of continuing the existing life insurance:

(Provide Additional Space)

3. Advantages of the proposed replacement of the existing life insurance:

\*\*Dividends are based on the 19\_ dividend scale. The dividends shown are not to be construed as guarantees or estimates of dividends to be paid in the future. Dividends depend on mortality experience, investment earnings and other factors, and are determined each year in the sole discretion of the Company's board of directors.

The Agent is responsible for furnishing required dividend information. It is recommended that he obtain this for the policy being replaced from the Company issuing the original insurance. As an alternative, however, he may show dividends on closest comparable policy, amount, age and duration from current statistical manuals (interpolating where necessary). It is to be recognized that dividend information under this alternative method, with respect to existing insurance is not likely to be as accurate as dividend information obtained directly from the Company issuing the original insurance.

In order to calculate the cost of a cash value life insurance policy over a period of years it is necessary to consider the interest which could have been earned on premium monies if they had been invested rather than paid to the insurance company. It is not sufficient simply to compare the sum of net payments (total premiums minus dividends, if any) over a period of years with the cash value at the end of the period.

## 4. Additional information:

(A) The existing life insurance cannot fulfill your intended objectives for the following reason(s):

(B) Under the proposal, the existing life insurance policy will be treated as follows:

(C) Your existing life insurance policy (can)(cannot) be changed to provide the benefits desired under the proposed new insurance. If it can be so changed, the reason(s) for proposing new insurance rather than changing your existing policy is as follows:

## 5. The primary reason for the proposed replacement of the existing life insurance by new insurance is as follows:

\_\_\_\_\_  
Date\_\_\_\_\_  
Signature of Agent\_\_\_\_\_  
Address

Source of dividend information used: \_\_\_\_\_

I hereby acknowledge that I received the above "~~Comparison Statement~~" "Disclosure Statement" and the "Notice to Applicants Regarding Replacement of Life Insurance" before I signed the application for the proposed new life insurance.

\_\_\_\_\_  
Date\_\_\_\_\_  
Signature of Applicant

## (C3) Task Force on Life Insurance Policy Lapsation

St. Louis, Missouri  
July 26, 1976

This task force was appointed by the Life Insurance (C3) Subcommittee at its meeting on December 9, 1975. The task force was charged with the responsibility of identifying specific problems involved and seeking solutions to the problem of life insurance policy lapsation. The task force has initiated contacts with the Life Insurance Marketing and Research Association in order to coordinate the efforts of the NAIC and LIMRA in the area of persistency research.

A meeting of the task force was held on July 26, 1976 in St. Louis, Missouri for the purpose of receiving a report from the Life Insurance Marketing and Research Association regarding their current activity in the area of persistency research, and summaries of measures currently used to improve life insurance persistency and conservation of business by reporting companies.

Due to the complex nature of the problem of persistency research, and the various approaches that can be taken, an early solution is not anticipated. We will welcome suggestions from any source.

The task force recommends:

1. That this report be received by the Life Insurance (C3) Subcommittee.
2. That the task force continue its efforts to define and refine the problem of lapsation.
3. That a new chairman be appointed who has the manpower and resources available to actively direct the continuing efforts of the task force.

Hon. Herbert W. Anderson, Chairman, Iowa; Hon. William H.L. Woodyard III, Arkansas; Hon. Dick L. Rottman, Nevada; Hon. Harold R. Wilde Jr., Wisconsin.

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### VARIABLE LIFE INSURANCE AND VARIABLE ANNUITIES (C4) SUBCOMMITTEE

Reference:

1976 Proc. I p. 561  
1976 Proc. II p. 639

Hon. T. F. Gilroy Daly, Chairman -- Connecticut  
Hon. Thomas A. Harnett, Vice-Chairman -- New York

#### AGENDA

1. Status report on the SEC Rule 6e-2 proceeding to modify the securities laws to accommodate VLI.
2. Discussion of the industry proposals for revision of the NAIC Model Variable Life Insurance Regulation.
3. Any other matters brought before the Subcommittee.

The Variable Life and Variable Annuities (C4) Subcommittee met at 4:30 p.m. on Monday, December 6, 1976, in the Regency Room of the Hyatt Regency Hotel in Phoenix, Arizona. Commissioner Daly, Chairman, presided, and a quorum was present.

Richard Hemmings, NAIC staff, delivered a status report on the SEC Rule 6e-2 proceeding to modify the securities laws to accommodate variable life insurance.

Paul Mason of the American Council Life Insurance presented a report in connection with discussion of the industry proposal for revision of the NAIC Model Variable Life Insurance Regulation. The subcommittee voted to receive the report.

On other matters presented before the committee, John Montgomery, Chairman of the (C) Committee Technical Task Force to Review Valuation and Nonforfeiture Value Regulation, submitted a report and recommendation that the technical task force should be authorized to draft changes in valuation and nonforfeiture value legislation and regulation for variable products corresponding to those adopted for fixed products at the time new legislation or regulations are adopted by the NAIC. This was adopted by the subcommittee and is attached.

There being no further business to come before the subcommittee, the meeting was adjourned at 4:55 p.m.

Hon. T. F. Gilroy Daly, Chairman, Connecticut; Hon. Thomas A. Harnett, Vice-Chairman, New York; Hon. William H. L. Woodyard III, Arkansas; Hon. Maximilian Wallach, District of Columbia; Hon. Johnnie L. Caldwell, Georgia; Hon. Manuel A. Chaco, Guam; Hon. H. Pete Hudson, Indiana; Hon. Fletcher Bell, Kansas; Hon. Thomas C. Jones, Michigan; Hon. Berton W. Heaton, Minnesota; Hon. Peter F. Mullaney, Rhode Island.

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To: Hon. T. F. Gilroy Daly  
Insurance Commissioner  
State of Connecticut

From: Paul J. Mason  
Chief Counsel, Securities  
American Council of Life Insurance  
Washington, D. C.

Re: Proposed Changes to NAIC Model Variable Life Insurance Regulation

Date: November 29, 1976

This is in further reference to our November 22 meeting at which we provided you with comments regarding Richard Hemmings' report dated September 9, 1976 concerning proposed changes to the NAIC Model Variable Life Insurance Regulation submitted by the American Council of Life Insurance.

It was understood that we would furnish you with a summary of our reaction to the September 9 document, which summary supplements our "Explanation of Recommended Changes to NAIC Model Variable Life Insurance Regulation" dated April 30, 1976 and forwarded to the (C4) Subcommittee on May 3, 1976. We anticipate that the enclosed summary will be discussed at the meeting of the (C4) Subcommittee on Variable Life and Variable Annuities scheduled for December 6. Bruce Nickerson and I will be available at the (C4) Subcommittee meeting to answer any questions you may have.

We very much appreciated the opportunity of discussing this subject with you in Hartford and hope that the enclosed material will be beneficial.

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ACLI Reaction to NAIC Staff Report  
on Proposed VLI Regulation Amendments

At our meeting in Commissioner Daly's office on November 22, it was agreed that the American Council of Life Insurance (ACLI) would transmit to the NAIC Central Office and to Commissioner Daly a summary version of our reaction to Richard Hemmings' September 9, 1976 memorandum entitled "Recommendations on the Industry Proposed Changes of

the NAIC Model Variable Life Insurance Regulation." Again, as stated at the November 22 meeting, these comments do not substitute for our earlier proposal entitled "Recommended Changes to NAIC Model Variable Life Insurance Regulation" dated April 30 and submitted to the NAIC (C4) Subcommittee by the ACLI on May 3, 1976. Our complete submission is obviously more detailed and also covers several items which are not separately touched upon here.

The item numbers below correspond to the item numbers of the NAIC memorandum of September 9, 1976.

#### Changes in Investment Policy (Item 2)

The ACLI's narrative explanation of its proposed change may have been somewhat ambiguous since Mr. Hemmings' "Summary of Recommendations" reflects that we were recommending an elimination of the "substantial similarity" test. Actually, we were recommending the addition of an alternative test, namely one of "consistent safeguards" and we continue to urge that this alternative be adopted.

We believe this additional test to be most workable and useful. Without such an alternative approach, companies domiciled in, for example, New York, Michigan and Colorado (which do not have a public hearing requirement for changing investment policy) could not readily operate in states which adopt the model regulation in its present form. Similarly, there are quite a number of states which have already approved variable life insurance policy forms without a regulation, relying solely upon statute and the overall powers of the Commissioner. Companies domiciled in such states might not pass the "substantial similarity" test of a state which adopted the presently existing model regulation.

#### Filings (Item 3)

It would seem appropriate, particularly if our recommendation immediately above is adopted, for the Commissioner to receive a statement from the insurer describing its actual procedures for changing investment policy.

#### Use of Sales Materials (Item 4)

A unique procedure for review of advertising of variable life insurance policies should not be required. The NAIC model regulation on advertising specifically covers the variable life insurance product. Therefore, variable life insurance should not be singled out for additional treatment.

Also, we note that the VLI Regulation's optional requirement for prior filing of variable life advertising material renders the possibility of a national campaign, particularly one using network television, an extremely difficult undertaking. This is not a requirement for fixed benefit insurance, and singling out the variable life insurance product makes it appear less like traditional life insurance.

#### Mandatory Policy Benefit and Design Requirements (Item 5)

Mr. Hemmings' analysis deals separately with (a) the lifetime coverage requirement; (b) the minimum multiples; (c) limitations on policy design, generally; and (d) an increase in nonforfeiture benefits in the event premiums exceed a certain level.

As to items (a) and (b), we believe, as stated in our earlier submission, that the existing requirements unduly restrict an insurer's ability to develop and market useful variable life insurance products.

As to items (c) and (d), ACLI's position is contained in an earlier submission.

#### Policy Reinstatement (Item 6)

The ACLI's narrative explanation of this proposed change was not clear in explaining the need for this change. The reinstatement provision in the present model regulation makes no reference to incidental insurance benefits. The ACLI proposal is intended to correct this drafting oversight in a manner which would be consistent with the reinstatement requirements for fixed benefit life insurance and would avoid unequal treatment of different VLI policyholders.

If a fixed benefit life insurance policy includes an incidental insurance benefit for which an extra premium is charged, then the statutory charge for reinstating this benefit after lapse is the amount of the overdue premiums for the benefit plus interest. The ACLI proposal would provide precisely the same charge if the benefit had been included in a VLI policy. If the ACLI proposal is not accepted, then insurers would be required under some circumstances to reinstate incidental insurance benefits at a lower charge, or even for free. We are convinced that this anomalous result was not intended, and urge that our recommendation be accepted.

18 Month Exchange Privilege (Item 7)

The NAIC and the insurance industry are in full agreement that the mathematical basis of exchange specified in the current provision produces unfair and erroneous results. No insurance department should permit, much less require, a VLI policy to include a guarantee for exchange on that basis. Even though an NAIC review of this ACLI proposal has not yet been completed, we urge that the current provision not be retained.

At least, the ACLI proposal is a workable alternative. The immediate problem is not to find the best permanent solution, but to avoid the harm that would result if the present language were not changed. If our proposal is adopted now, this damage will be avoided, while the NAIC would in no way be precluded from adopting any further revision which might be indicated upon completion of its actuarial review.

Deferred Payment of Death Benefits (Item 8)

We believe that this suggested change is an appropriate technical revision regardless of whether SEC regulation is involved. The ACLI recommendation would limit the six month deferment right to fixed benefits, and in that respect would conform more closely to the NAIC Model Variable Contract Law, which makes inapplicable to VLI certain provisions of the insurance law which do not fit variable life insurance. The six month deferment clause is part of the nonforfeiture provision of the insurance law. The model law, at Explanatory Note to Section 5, makes "inapplicable any provisions of the Insurance Law requiring . . . nonforfeiture provisions," and, at Section 5, states that a variable life insurance contract "shall contain . . . nonforfeiture provisions appropriate to such contract."

The blanket six month deferment right is inappropriate for variable benefits, since, at the time of any surrender or loan request, the levels of variable cash values will simply reflect the market value of the separate account assets at that time. In contrast, fixed benefit policies have cash values guaranteed in amount without regard to the market value of the assets supporting reserves and cash values. Thus, the forced liquidation of securities at a loss to pay fixed benefits could impact on the solvency of the company. This is the primary reason for the six month deferment provision, which clearly should not be applicable to variable cash values.

The proposed change, of course, retains the insurer's right to defer payment of variable benefits in the case of a stock market emergency, since such an emergency would prevent the determination of the amounts to be paid.

Settlement Options -- Fixed Basis Only (Item 9)

We have no comment beyond that already expressed in our earlier submissions.

Charges Against the Separate Account (Item 11)

ACLI's comments are contained in our earlier presentation.

Standards of Conduct; Conflicts of Interest (Item 12)

It would be preferable to rest upon the traditional regulation already afforded by the insurance laws of the various states and make the deletions we have earlier recommended.

Investment Advisory Services to a Separate Account (Item 13)

Same comment as immediately above.

Information Furnished to Applicants (Item 15)

We recommend the elimination of the requirement for disclosure of commissions. Although this is presently required under SEC regulations, it is not a state insurance law requirement for fixed benefit products.

Foreign Companies (Item 17)

The provision we are recommending (see our earlier submission) would afford insurance commissioners extremely useful discretionary powers. It is identical to the provision found in the NAIC Model Variable Annuity Regulation.

In those instances where a domiciliary state's laws or regulations are not precisely in line with those of a state which has adopted the model regulation, our proposed new Article X would permit the Commissioner to find that there is necessary compliance with the laws of his state so long as the domiciliary provides protection to policyholders and the public "substantially equal" to those of the model regulation.

This is not an unusual type of insurance provision and it is doubtful that insurance departments would be overwhelmed with requests for exemptions.

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TO: Hon. Jay Jackson, Chairman (C4) Subcommittee  
Hon. Thomas Harnett, Vice-Chairman  
Jon S. Hanson, Director of Research

FROM: Richard A. Hemmings

RE: PROPOSED CHANGES TO THE NAIC MODEL VARIABLE LIFE INSURANCE  
REGULATION

DATE: September 9, 1976

This memorandum is a review of the American Council of Life Insurance (formerly ALIA hereafter referred to as "Council.") recommended changes to the NAIC Model Variable Life Insurance Regulation which were first submitted to the (C4) Subcommittee at the NAIC December, 1975 meeting.<sup>1</sup> The Council prepared an explanation of changes prior to the NAIC June 1976 meeting and also revised and updated their recommendations with written submissions to the subcommittee on April 30, 1976.<sup>2</sup> Pursuant to the June 3, 1976 direction of the subcommittee, the NAIC Central Office has reviewed the Council's proposed changes. Where appropriate, dispositive recommendations are made on particular points.

In the interval since the regulation was adopted by the NAIC in December, 1973, there have been some significant changes in the anticipated role of the States versus the SEC in regulation of variable life insurance (VLI). There has not been any countrywide, massive marketing effort for VLI by any company to date. The Equitable Life subsidiary EVLICO beginning in late 1975 has initiated marketing efforts in several states. The delay in marketing VLI is, as you know, partly attributable to the complex regulatory pattern that has developed as a result of the SEC's attempt to regulate the product.

At the very outset of the (C4) Subcommittee's reconsideration of the regulation, it should be understood that the current regulation was developed around the industry's proposal to the SEC to exempt VLI from the Investment Company Act. The regulation incorporates provisions that were in response to the SEC's proposal to condition the 1940 Investment Company Act (ICA) exemptions on a prior SEC determination that state VLI regulation would afford substantially equivalent investor protections.<sup>3</sup> If the NAIC were developing a VLI regulation out of this SEC context, it undoubtedly would differ materially from the current regulation in many significant respects. In the long run, this fact may suggest that a full subcommittee review of the regulation is advisable in addition to the current review of those points included in the Council's recommended changes.

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1. The December 1975 recommended changes were published in the 1976 Proceedings of the NAIC I 566-591. (Henceforth these proceedings will be cited as "Proc.")
  2. The explanation of changes dated April 30, 1976 was published in the 1976 Proc. II 641-645.

The proposed changes dated April 30, 1976 were not published intact in the Proceedings. However, a section showing how the ALIA amended its original December 1975 changes to produce the April 1976 version did appear in 1976 Proc. II 644. The changes once appeared as Attachment 1 to this memorandum, but have since been deleted.

3. Rule 3c-4, Investment Company Act Release No. 7644, January 30, 1973 and Rule 202-1, Investment Advisors Act Release No. 359, January 30, 1973.

The greatest apparent impetus to the current industry proposals for change is the withdrawal of the SEC exemptive rules.<sup>4</sup> However, the proposals in the aggregate are broad in scope and all the proposed changes are not attributable to the potential overlap of SEC and state regulation.

The following paragraphs review the Council's recommendations in the order of their appearance in the NAIC regulation unless otherwise indicated:

1. Art. III Sec. 1b Permissible Investments

The regulation provides that insurers may not deliver or issue for delivery any VLI policies unless the insurer's state of domicile requires that permissible investments be substantially the same as the state with this regulation. As a condition of doing business in the model regulation state, the domicile state must impose separate account investment restrictions substantially similar to the NAIC regulation restrictions -- e.g. no real estate, no options, no commodities etc. (Art. VI, Sec. 3). The NAIC regulation lists specific categories of permissible investments and prohibited investments.

Background

The commentary to the regulation explains that uniformity was especially necessary in the methods of changing investment policy and permissible investments. Policyholders' benefits exceeding (positively or negatively) the guaranteed initial face amount are directly related to the investment performance of the separate account.

Promulgation of the model regulation with this provision would tend to cause uniformity throughout the several states. In other words, if an insurer's state of domicile allowed investment of VLI separate account assets in real estate, that insurer could not market VLI in a state with the NAIC regulation. It was anticipated that industry would therefore tend to endorse uniform permissible investments and other standards and states would be encouraged to seek uniformity.

Proposed Change

The proposed change would eliminate the "substantial similarity" requirement and substitute for it a requirement that the actual investment policy of the insurer follow the permissible investments of the model regulation state in which it seeks to market VLI. This would allow the model regulation state to exercise its desired controls but not unfairly deny marketing to an insurer whose state of domicile happens to have inconsistent investment restrictions.

Recommendation

It is recommended, although with some reluctance, that the industry suggestion be accepted. The need for uniformity has not diminished. However, the NAIC regulation was drafted in an atmosphere of great expectations for VLI in terms of early marketing and wide spread consumer acceptance. In fact, VLI has not received the attention that was anticipated. Relatively few states<sup>5</sup> have adopted the NAIC regulation. Some of these and others have given the green light to the Equitable to market and additional states will follow. In view of the fact that insurers will be struggling into the VLI market, the fact that the NAIC regulation may be revised, and the fact that the states have not moved too precipitously in adopting the model, the most "equitable" way of dealing with the investment limitations problem appears to be to provide that each state impose its own investment criteria but not bar insurers from marketing because the insurer's state of domicile happens to provide other investment limitations.

2. Art. III Sec. 1b -- Changes in Investment Policy (Also includes Art. VI Sec. 6)

Art. III Sec. 1b works in tandem with Article VI to regulate changes in investment policy. The standard of "substantial similarity" of the domicile and model regulation states on changes in investment policy is established as another condition precedent to marketing according to Art. III.

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4. Investment Company Act, Release No. 8690, February 27, 1975; Investment Advisors Act, Release No. 439, February 27, 1975.
5. Seven states have adopted the NAIC model to date: California, Colorado, Kansas, Missouri, Nebraska, North Dakota, and Ohio.

The primary rule of Art. VI Sec. 6 is that the investment policy of the separate account cannot be changed without the commissioner's approval. Approval is deemed given after a lapse of 60 days unless refused or deemed "material" by the commissioner. If the change is deemed material, any change must be preceded by a public hearing and a determination that the change does not appear detrimental to policyholders. In the event that a policyholder nevertheless objects to the change, he would be given a conversion privilege.

#### Background

(Art. VI). The model regulation was drafted in an atmosphere of conflicting regulatory jurisdiction. Both the SEC and the NAIC were concerned with unauthorized changes in investment policy. Policyholder voting was rejected by the NAIC in favor of more meaningful protection which would consider the interests of both the VLI policyholders and other policyholders of the issuing company.

The operation of the separate account for VLI intimately relates to and impacts upon the general account. The general account must include an insufficiency reserve for the contingency that the separate account assets are less than that needed to support the guaranteed minimum death benefit. Because of the inherent close relationship of the separate account with the general account and its role as guarantor of the minimum death benefit, the (C4) Subcommittee had to assure that the investment policy and the method of change would reasonably protect the interests of fixed as well as variable benefit policyholders.

The separate account is basically an accounting mechanism to measure the level of benefits the insurer owes to its VLI policyholders. Unlike a mutual fund, the insured does not own and the insurer's obligations are not limited to separate account assets. Voting rights were consequently rejected in favor of the regulation's commissioner approval, public hearing, and conversion privilege approach.

(Art. III). In addition to requiring uniform investment restrictions throughout the states, the (C4) Subcommittee also sought to achieve uniform methods of changing investment policy. According to the regulation, methods of changing investment policy in the domicile state must be "substantially similar" to the model regulation state as a condition precedent to licensing. The uniform method of change must be assured so that policyholders of the same insurer in different states are treated equally.

#### Proposed Change

The Council is recommending deletion of the hearing requirement for material changes in investment policy. The proposal assumes that the SEC will impose voting requirements rendering the NAIC procedure unnecessary and undesirable or superfluous.

The industry proposal would rely on the commissioner's approval or disapproval of investment policy changes, the addition of voting rights, and a conversion privilege to control changes in investment policy. The rationale offered in support of the replacement of the hearing procedure by voting rights is simply that the federal securities laws will require voting rights.

The addition of language by the Council in Art. VI. Sec 6b.(3) appears to streamline and broaden somewhat the ability of the policyholder to convert to a new policy. Specifically, the proposed amendment requires that policyholders objecting to a change in investment policy be given the right to convert within 60 days of the effective date of change, rather than 60 days from notification of the commissioner's approval of an investment policy change. The reason for the revised starting date of the 60 day period is tied to mailing of the proxy statement and the desired objective of cutting down the number of necessary mailings.

#### Recommendation

The Council recommendation assumes that VLI will be regulated by the SEC. Whether the SEC regulates VLI or not, it is recommended that the Art. III requirement of substantial similarity of methods for change in investment policy in the state of domicile and the model regulation state be retained as a condition to marketing. This requirement would prohibit VLI marketing unless there were substantially similar regulatory provisions in these states. The model regulation encourages uniformity because of the need of assuring policyholders (of the same insurer) in different states that they will be treated equally. For example, it would be inequitable to provide conversion rights to some insureds objecting to investment policy changes but not others of the same insurer because of state residence.

The council recommendation to revise Art. VI, Sec. 6 should be deferred or rejected to the extent that the revisions would replace the hearing on proposed material changes in investment policy with the assumed application of voting rights. In the event that SEC regulation and imposition of voting rights is determined by the NAIC to be inevitable, the council's recommendation would then be appropriate. Hearings would appear to be superfluous if there are both voting rights and the present opportunity for dissenting policyholders to convert to fixed benefit life insurance. The change in the 60 day notice requirement appears to be acceptable.

NOTE

The Council also adds language requiring the filing of the mathematical basis for objecting policyholder's conversion in Art. VI Sec. 6, and deletes the existing conversion basis. This proposal, like that on the 18 month exchange privilege (Art. IV Sec. 3f) should be referred to an actuarial task force.

3. Art. III Sec. 2c Filings

The Council recommends the inclusion of a statement describing the procedures for changing investment policy with the materials filed for approval to do business. The change is related to the recommendations already discussed with respect to Art. III Sec. 1b and Art. VI, Sec. 6. Whether or not SEC regulation applies to VLI, the decision on this proposed change should follow that on changes in investment policy above.

4. Art. III Sec. 4 Use of Sales Materials

The regulation currently deals at some length with the use of VLI sales materials and advertising.

Proposed Change

The Council recommends a change that would preserve the present provision that prohibits sales materials that are false, misleading, deceptive or inaccurate, but would delete the definition of sales or advertising materials and the filing requirement for VLI advertising materials. The Council points out the fact that the NAIC guidelines on life insurance advertising had not been adopted at the time the VLI regulation was prepared in 1973. The life advertising rules were adopted in June 1975 by the NAIC.<sup>6</sup>

Background

The adopted NAIC rules on life advertising apply to all forms of life insurance including VLI. States which promulgate NAIC life advertising rules may determine that separate and similar rules in the VLI regulation are unnecessary. The generally applicable life advertising rules prohibit the use of terms such as "investment," "profit-sharing," and "savings" in a context that would so mislead a purchaser that he believes that he will receive something other than a policy or benefit available to other persons of the same class and equal expectation of life. The drafting comments to the VLI regulation point out that:

A specific concern of the Subcommittee . . . is potential sales of variable life insurance in a manner which might falsely portray it as a type of investment. It was clearly the subcommittee's position that variable life insurance was not an investment and should not be purchased for reasons other than primarily death protection.<sup>7</sup>

In this and other respects, the NAIC VLI regulation takes an approach somewhat similar to the generally applicable life advertising rules.

The general rules, however, do not entirely overlap the VLI regulation. Art. III, Sec. 4a of the VLI regulation requires that all VLI sales material, advertising material and descriptive literature be filed with the commissioner before use. There is no insurance department filing requirement in the general life advertising rules.

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6. Rules Governing the Advertising of Life Insurance, 1975 Proc. II 326-330.

7. 1975 Proc. I 804.

The VLI commentary explains that the filing requirement was included as an interim measure to deal with new advertising approaches that may result from VLI marketing. A particular concern was the possibility of specific VLI advertising rather than the institutional advertising which has been typical of life insurers in the past.

The backdrop of the NAIC concern over VLI advertising was the expectation that both the states and the SEC would regulate advertising of the product. State insurance departments want to assure that prospective purchasers understand that VLI is life insurance. The SEC views VLI as a security, and investment features could be emphasized in SEC advertising requirements.

The VLI advertising requirement was therefore adopted by the NAIC as a check on early and possibly detailed VLI advertising. The filing requirement was expected to be dropped once sufficient knowledge of VLI marketing techniques was available and the market had stabilized.

#### Recommendation

The only relevant event intervening since adoption of the model regulation was the NAIC's adoption of the life insurance advertising rules in 1975. In states with these rules, the definition of advertising or sales material in this regulation is no longer necessary. However, it is recommended that until sufficient experience with VLI regulation is gained, states retain the VLI advertising filing requirements in the model regulation.

#### 5. Mandatory Policy Benefit & Design Requirements: Art. IV Sec. 2

##### General Background

The original 1971 industry petition to the SEC for exemption of VLI from the securities laws<sup>8</sup> narrowed the possible definitions of VLI to one designed for purposes of obtaining the requested exemption. The industry definition limited the planned marketing of SEC exempt VLI products by requiring the following four major characteristics: (1) the policy must provide lifetime insurance coverage, (2) the policy must be issued for an initial stated amount of death benefit and must guarantee payment of a death benefit least equal to such amount, (3) the amount payable upon death of the insured in any year must be no less than a minimum multiple of the gross premium payable in that year by a person meeting standard underwriting requirements, and (4) the entire contract must be a life insurance policy subject to state insurance regulation.

These four criteria were embodied in similar form in the NAIC regulation and the first three appear in Article IV Sec. 2. Obviously, the fourth criterion is represented in the entire NAIC Model VLI Regulation as a whole. The current Council recommendation is that two of these criteria be eliminated from the NAIC regulation - the lifetime coverage requirement and the minimum multiples of gross premium which set the amount of the minimum death benefit. The council's explanation of these deletions is that they were a part of the SEC exemption proposal, Rule 3c-4, and with current dual (SEC-state) regulation they are no longer necessary.

The central purpose of the industry in limiting VLI with the four criteria was to steer a course through the regulatory concerns of the SEC and the variable annuity judicial precedents that would cast VLI as an insurance product rather than an investment. By emphasizing the insurance function of VLI, it was assumed that the SEC would recognize the distinctive characteristics of VLI as opposed to variable annuities.

To the extent that the NAIC included the industry's VLI criteria in the model regulation in order to prevent an improper or erroneous emphasis on investment characteristics, the purpose of these provisions in the regulation presumably remains valid. It is suggested that the current industry proposals be viewed in this light as well as considering what happened to SEC Rule 3c-4 and what stance the SEC assumes in the future.

The Council is recommending deletion or revision of the following several provisions concerning required benefits and design of VLI policies:

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8. Petition For Issuance and Amendment of Rules and Rulemaking Proceeding Therefore, Before the United States Securities and Exchange Commission, Washington, D.C. 20549, filed by American Life Convention and Life Insurance Association of America, November 29, 1971.

- a. Art IV 2a. This provision requires that the insurer provide coverage for the lifetime of the insured and assume the mortality and expense risk for such coverage.

Proposed Change

The Council has recommended the deletion of the "lifetime coverage" requirement for VLI on the basis that this limitation stemmed from SEC Rule 3c-4 which has been rescinded. The restriction in the NAIC Model precludes companies from writing VLI on the endowment form in the nontax qualified market as well as in the markets for tax sheltered annuities and IRA's.

Background and Recommendation

The "whole life" requirement was indeed in Rule 3c-4 and one of the limiting criteria agreed upon by the insurance industry in proposing exemptions for VLI from the Securities laws. The apparent purpose of the 3c-4 requirements which limited and defined VLI was, in part, to emphasize insurance elements as opposed to investment-type characteristics. In other words, the industry didn't want to ask for too broad an exemption because the SEC was expected to deny such a request. By limiting VLI to whole life protection policies, it was thought that the insurance function would predominate and the policy would appeal to persons interested in protection against the risk of death.

The concern evident in the industry's SEC proposal regarding an "insurance" emphasis was shared by the NAIC in drafting the model regulation:

Because of the Subcommittee's concern with variable life insurance improperly and erroneously emphasizing an 'investment' nature, they determined for the time being to limit policies to those which provided coverage for the whole of life.<sup>9</sup>

The NAIC was obviously concerned with the insurance vs. investment marketing appeal and industry marketing efforts wholly apart from Rule 3c-4. It is therefore recommended that any consideration of deletion of Article IV 2a. await a clarification of the state and federal regulatory roles and a review of the NAIC regulation as a whole in light of the final regulatory stance of the SEC. In the event that litigation on the issue of SEC jurisdiction continues to be contemplated or is pursued, it is strongly urged that this provision be retained.

- b. Art IV 2d. The model regulation in this subsection sets forth a table of multiples that correspond with age classifications that are to be used in determining minimum guaranteed death benefits. The gross premium times the minimum multiple specifies the minimum death benefit.

Proposed Change

The ALIA recommends that the NAIC delete the minimum multiple provision because it was part of the now repealed Rule 3c-4 and because it does not permit sales of some forms of limited pay VLI and endowment for the nontax qualified, tax sheltered annuity and IRA markets.

Background and Recommendation

With regard to both Section 2a and 2d, the commentary to the model regulation discloses that, at least in part, these provisions were included to prevent SEC regulation of products that, implicitly, would be subject to federal control. In other words, the NAIC regulation paralleled the related provisions of Rule 3c-4 so that VLI would not be written in a manner that would subject some VLI products to dual regulation. Certainly, with the demise of Rule 3c-4 and SEC's authority ready to be exercised over all VLI products, the question of inclusion of Rule 3c-4 provisions should be reopened.

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9. 1975 Proc. I 807.

The reason the "minimum multiples" were included in the SEC proposal is clear in a reading of the ALC-LIAA 1971 Submission to the SEC:

Without this requirement, the investment element could be greatly increased either by charging premiums which are much higher than is customary and allowing excess amounts, plus the investment results, to emerge in the form of increased benefits or by providing that the premiums under a lifetime policy are to be paid over a comparatively short period.<sup>10</sup>

The minimum multiples were part and parcel of the industry's effort to convince the SEC that the investment element of VLI that would be marketed under the exemption was subordinate to insurance protection.

The NAIC, however, was never convinced, in this context, that "high cash value" policies or policies not subject to minimum multiples would, "because of their increased cash value, be transformed into anything other than insurance or should lead to a different type of regulation."<sup>11</sup>

In the event that the SEC maintains jurisdiction over VLI, there is virtually nothing to suggest that the minimum multiples are crucial to state regulation of VLI. If the SEC is ultimately persuaded or forced to withdraw from VLI regulation, the minimum multiples, or a similar concept, may be useful from a practical standpoint in avoiding any further federal regulatory encroachment. In any event, the minimum multiple provision of the model regulation should be reviewed in light of the current regulatory situation. In the event that litigation with the SEC is pursued by the states, retention of the minimum multiple requirement would provide an additional limiting characteristic for VLI that tends to deemphasize the investment element.

c. Article IV, Section 2e

This subsection controls the form of variable life insurance that may be offered and requires that the excess investment performance (amount by which the net investment return exceeds (+ or -) the assumed investment return) be applied to provide policy benefits in a design defined by this provision. Section 2e limits the possible array of VLI designs to those that apply the excess investment performance in the form of adjustments to the amount of insurance. Two alternative designs are set forth, commonly referred to as the New York Life design and the Equitable design.

Background

The requirement of Article IV, Section 2e was included in the regulation at the same time as the lifetime coverage, minimum death benefit and level premium requirements. The (C4) Subcommittee on May 17, 1973 adopted a series of resolutions identifying provisions to be included in the new variable life insurance regulation. Resolution No. 2 included a requirement that:

investment earnings in excess of the assumed earnings must be used to purchase either fully paid up Variable Life Insurance additional amounts or to purchase additional Variable Life Insurance Amounts based on the same level premium payment method as the basic insurance policy.<sup>12</sup>

The same resolution also set forth other VLI design requirements that were a part of Rule 3c-4 and also appear in the model regulation, at Article IV, Section 2 (e.g. lifetime coverage).

Although the precise reasons for inclusion of Section 2e are not detailed in the commentary to the regulation or in other historical materials in NAIC files pertaining to the regulation, there appear to be two interrelated explanations for the provision. First, the (C4) Subcommittee sought to provide a variable life regulation that would provide for a period of development of VLI products during which insurance departments could gain experience in regulating the product and identify areas in need of detailed external control. In order to achieve this objective, it was thought desirable to limit the array of possible VLI designs to a manageable variety.

10. Petition for Issuance and Amendment of Rules at 16.

11. 1975 Proc. I 806.

12. The resolutions were not published in the Proceedings at that time.

Second, during the period in which the regulation was drafted, it was widely accepted that there would be:

two major theories regarding the method in which the companies could accommodate the variation in benefits caused by fluctuations in the investment experience of a separate account.<sup>13</sup>

The inclusion of the 2e requirement recognized the prevailing belief that:

While an infinite number of variable life insurance designs are possible, it appears that the two most common designs will be the ratio design (described by actuaries of New York Life in their landmark paper on this subject) and the paid up design (designed by Howard [sic] Walker, then of Equitable Society, in his discussion of that paper).<sup>14</sup>

The 2e provision has been somewhat controversial in that there exists some industry concern that useful innovation will be hampered. This is not a new concern nor does it now appear to be any more crucial from the industry's viewpoint than in the past.

#### Proposed Change

According to the Council, amendment of the regulation is desirable so that a commissioner would have discretion to approve new VLI designs. This would provide the means for introducing new policy design variations if found acceptable to the commissioner.

#### Recommendation

While the industry proposal to amend Section 2e is not particularly objectionable, neither is the apparent rationale in favor of the change particularly persuasive. Marketing of VLI products cannot be said to be in anything other than an early embryonic stage. The interest of the NAIC and individual states in limiting the variety of VLI product designs remains valid. Meaningful regulatory experience is yet to be gained.

Robert Routier, then Associate General Council for the American Life Convention (a predecessor of the Council) reviewed the prospects for VLI in a paper for the ALC in 1972.<sup>15</sup> Mr. Routier examined the industry's criteria for defining VLI (pursuant to the request to the SEC to exempt VLI) and the possible variations permitted thereunder. He assumed that designs would be limited to the New York Life and Equitable forms. He concluded his review of those items with the statement that "the criteria which at first would appear to be quite restrictive do, in fact, allow maximum potential for policy design variations." On the two basic benefit designs, he said:

a number of variations can be made . . . for example, the calculation of benefit changes can be made on a daily, monthly, quarterly, or annual basis. A further variation on the NYLIC design that has already been established in the Aetna Variable Life Insurance Company's proposed fixed premium VLI policy is the elimination of the premium adjustment factor from the benefit calculation.<sup>16</sup>

The states' interest in Section 2e stemmed largely from the expectation that regulatory experience was desirable prior to consideration of a great array of complex VLI designs. This concern is probably also applicable to individual insurers. Both the regulators and issuers of VLI products will be plowing new ground.

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13. Robert Routier, Variable Life Insurance, 1972 American Life Convention Proceedings, at page 12.

14. Hanson and Knowlton, Variable Life Insurance: An Opportunity for Progress and Profits, Best's Review, Life and Health Ed., May 1973 at 16.

15. See f.n. 13 Supra.

16. Id. at 13.

There may be some problems common to insurers entering the VLI field and under-estimating the complexities of administering the product, underpricing administrative costs with the ultimate impact on profits. If insurers enter the market with VLI products that are more complex than they later find to be workable, it would be difficult to back track because of the commitment to the complex design and its long range problems.

For these reasons, it seems preferable for a company first entering the variable life field to enter it with a product design that is as simple as possible. After several years of experience with a simplified product, a company will be in a position to decide whether or not it wants to undertake the handling of a more complex product.<sup>17</sup>

Like the insurers they regulate, it may be desirable for individual states to limit an already complex insurance product to designs that are somewhat simplified and manageable from the regulators' viewpoint in terms of anticipated varieties. As noted above, the current NAIC regulation does allow significant potential for policy design variations.

The jurisdictional disputes between the states and the federal government on VLI and the federal scrutiny of other life insurance practices and state regulation highlight the fact the states must proceed with some caution in regulating this controversial new insurance product. Absent a more substantial showing of need to expand the design limitations of Section 2e it is recommended that the current provision be retained without change.

d. Article IV Section 2j

Section 2j is a complicated provision that was designed to provide policyholder protections against the possibility of an insurer's acquisition costs being too high resulting in premiums unreasonable in relation to benefits. In effect, the provision requires greatly increased nonforfeiture benefits when premiums in excess of conditional maximums are charged.

Background

In promulgating the exemptive rules 3c-4 and 202-1 the SEC articulated its intent to monitor the development of state regulation in several enumerated areas. One of these was the expectation that states would so regulate VLI as to include protections against excessive management, administrative and sales expenses.<sup>18</sup> The SEC clearly implied that the Rule 3c-4 exemption was conditioned upon the development and implementation of state regulation that would provide "substantially equivalent relevant investor protections" This implication was later proposed as a formal requirement under which the SEC would expressly condition the VLI exemption on a prior approval of the state regulatory design.<sup>19</sup>

Partly or perhaps primarily in response to the SEC's monitoring role, the NAIC sought to include provisions in the Model Variable Life Insurance Regulation that would address sales, administrative, and management charges. Article IV, Section 2j is part of the answer finally adopted by the NAIC.

The current provision replaced a proposal that was unanimously opposed by the insurance industry.<sup>20</sup> The previous provision required a refund of a specified portion of the premium in the event of a first year lapsation. The articulated purpose of this provision was to (1) provide an additional layer of consumer protection; (2) limit sales expenses, and (3) reduce lapse rates. This multifaceted purpose developed around concerns of high lapse rates, loss of first year premiums (excessive forfeiture) on an early lapse, control of "front-end" charges, and promoting increased persistency.

17. Best's Review, Life and Health Ed., May, 1973 at 88.

18. See ICA Rel. No. 7644, Jan. 31, 1973.

19. ICA Rel. No. 8000, Sept. 20, 1973.

20. See attachment 3 to this memorandum.

The insurance industry challenged the refund provision as being unworkable and counterproductive and instead recommended provisions which ultimately were largely adopted by the NAIC.

The industry proposal sought to resolve to the satisfaction of the NAIC and insurers the concerns that were evident in the refund requirement. As adopted, by the NAIC the industry suggestion called for: (1) a "10-day free look" provision (now in Art. IV, Sec. 3a) that provides a policyholder with an opportunity to reconsider his purchase for a reasonable period and (2) a mechanism to increase the minimum cash values substantially in the event that an insurers premiums exceeded certain specified maximums.<sup>21</sup>

The suggested cash value increase mechanism is Article IV, Section 2j of the adopted regulation. The industry perceived this provision largely as a response to the sales load limitations in the 1940 Investment Company Act. In industry submissions to the SEC as well as those of the NAIC, it was explained variable life insurance does not lend itself (in the same way as mutual funds) to direct regulation of management, administrative, and sales charges. This is so because, unlike a mutual fund, the cost of providing immediate death protection is blended with the costs of other benefits, sales, and administrative expenses in determining a level premium.

In order to meet the "substantially equivalent regulation" expectations of the SEC, it became apparent that there would have to be some form of regulation of the entire premium. Quoting from an industry source

If a regulation is to be written that purports to deal with protection against excessive charges and at the same time is to recognize the indivisibility of the premium, I do not see how the regulation can avoid dealing with the level of premium charges. This is the conclusion that was reached by the Actuarial Committee of the ALIA, and their conclusions are reflected in the [NAIC] Model Regulation which requires that a company that chooses to charge premiums in excess of certain specified premiums (related to Rule 3c-4), would have to provide cash values in excess of those otherwise required under the law.<sup>22</sup>

The maximum premium limitation was proposed and adopted as an alternative to direct rate regulation which is alien to life insurance regulation in the United States.

According to the industry explanation, Section 2j was based upon the minimum multiples appearing in Rule 3c-4 and Article IV, Sec. 2d of the NAIC regulation and serves to

adjust the maximum premiums implied by the minimum multiples . . . to make such maximum premium "plan specific."<sup>23</sup>

The effect of the provision would be to greatly increase minimum cash values if the premium (for standard lives) exceeded the actuarial equivalent of premiums implied in the minimum multiples.

#### Proposed Change

The council has suggested deletion of Section 2j and supports the recommendation with four reasons:

21. First introduced in "Statement by Industry Advisory Committee on Article VI, Section 21," an attachment to an unpublished industry advisory committee report dated August 6, 1973. See attachment 4.
22. See attachment 5, an unidentified letter.
23. Attachment 4.

1. The provision presents an extremely complicated and cumbersome regulatory program;
2. This approach is inconsistent with determining cash values for fixed benefit life insurance;
3. There is no comparable requirement for fixed benefit life insurance; and
4. The model regulation otherwise requires VLI cash values and nonforfeiture benefits to be consistent with those of fixed benefit life insurance.

#### Recommendation

It is recommended that the subcommittee's consideration of the maximum premium limitations of Section 2j be deferred pending resolution of the current questions on regulatory jurisdiction.

Although the maximum premium limitations were drawn from the minimum multiples in Art. IV Sec. 2d, the subcommittee's disposition of the recommendations on these two provisions is not interdependent. As noted in a 1973 letter from Connecticut General's General Counsel,

"We believe the philosophy underlying their [minimum multiples] initial development -- prevention of too -- heavily investment oriented products -- is entirely separate from their interpretation as meaningful maximum premiums."<sup>24</sup>

The philosophy underlying the premium limitations was instead the provision of a means for controlling the level of the entire premium. While the minimum multiple's control of limitation on the investment nature of VLI products could have an obvious and direct impact on a contest of SEC jurisdiction, the significance of this provision is more subtle.

A number of factors can be identified that tend to presage the eventual deletion or revision of this subsection. First of all, it is highly questionable whether the states presently have statutory authority to impose this form of rate regulation on the variable life insurance business. Another obvious concern is the complex nature of this premium control and the potential difficulty of providing effective regulatory oversight. Further, the maximums were conservatively set and the industry advisory committee which recommended them acknowledged that

we are not sure . . . [of] the extent to which the gross premiums implied under the multiples in Rule 3c-4 will be limiting to companies for the plans on which the multiples are based.<sup>25</sup>

Perhaps of greater significance is the fact that the model regulation does provide meaningful regulation of the insurer's charges against the separate account. This in combination with other provisions (e.g. minimum multiples Art. IV, Sec. 2d and the required crediting of the full net investment return, Art. IV, Sec. 2f, etc.) assures that the enhanced investment characteristics of VLI relative to fixed benefit products are effectively regulated above and beyond the normal concerns of traditional life insurance regulation. Put another way, the application of the maximum premium controls on top of these other controls in the model which are effective and more intimately related to the operation of the separate account can accurately be said to be no more relevant to VLI than any other form of life insurance. So why should premium rate controls be retained for VLI while they are not applied to other forms of life insurance?

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24. (Aug. 6, 1973 letter from Charles Stamm, III, General Council, Connecticut General Life Insurance Company to Paul Altermatt, then Chairman of the NAIC Subcommittee on Variable Contracts (C4)).

25. Attachment 4.

Perhaps no clear, compelling answer is possible. However, a couple of additional considerations suggest that at least deferral of this question is appropriate. For one thing, there has been recent concern and attention paid to competition within the existing life insurance business.<sup>26</sup>

The NAIC, for example, has developed and adopted the Model Life Insurance Solicitation Regulation which facilitates cost comparison.

Moreover, the background against which this provision was developed may suggest that it might be desirable in the event of a court contest on jurisdiction with the SEC. To backtrack slightly, this provision is at least partly attributable to the SEC's desire to see state regulation provide substantially equivalent protections in the area of control of sales, administrative and investment changes (among others). The NAIC pointed out to Senators Hart and Proxmire during the SEC proceedings the fact that the type of controls in the 1940 Investment Company Act would not effectively meet this objective:

An insurer could render imposition of the 1940 Act limitations ineffective by merely increasing those elements of the gross premium, e.g. mortality assumptions, over which the 1940 Act has no control.<sup>27</sup>

The 1940 Act . . . concept of limiting cost items in order to reduce the cost to the consumer is irrelevant unless all cost items are controlled. Forcing commissions down does not necessarily force premiums down since the insurer can still charge the same amount taking the excess as profit. Thus, the [NAIC] model regulation focuses on the entire premium.<sup>28</sup>

Although as a matter of law the SEC undoubtedly has no authority to regulate the entire VLI premium because of the inclusion of purely insurance charges, it has as a matter of fact proposed to do precisely that in Proposed Rule 6e-2.<sup>29</sup> Obviously, the SEC has recognized that control of the entire premium (like Section 2j of the model) is necessary to effectively control (without regard to competition) sales, administrative and investment charges.

While this may not be a particularly relevant consideration when looking at the pure VLI jurisdictional arguments under the McCarran Act and the Securities Laws, it could well have an effect on a court if it sees investment characteristics of VLI that lack SEC type controls in existing or proposed state regulation.

In summary, two points suggest deferral of the proposed deletion of Section 2j. One is the increased scrutiny of life insurance marketing and efforts to promote more effective competition. Second is the effect which this provision may have in the event of litigation on SEC jurisdiction. If the court tends to look at VLI with the bifurcated view of the SEC, the perceived and so-called investment element may tend to lead to the conclusion that control of the entire premium is necessary. If it is not provided by state regulation, this may enhance the posture of the SEC.

#### 6. Policy Reinstatement: Art. IV Sec. 3c

The regulation provides for reinstatement of VLI policies within two years of default upon written application and evidence of insurability accompanied by payment of the greater of: (1) both overdue premiums and outstanding indebtedness at the maximum policy loan interest rate applicable in the state; or (2) 110% of the increase in cash value resulting from reinstatement.

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26. Insurance Industry Pricing Study, U.S. Senate Subcommittee on Antitrust and Monopoly, 1974; also see Senator Hart's "Consumer Insurance Information and Fairness Act," S.2065, 94th Congress, 1st Session.

27. Unpublished letter of January 11, 1974 by James M. Jackson, then Chairman of the NAIC Variable Life Insurance Subcommittee, to Senators Phillip Hart and William Proxmire, U.S. Senate, at 6.

28. *Id* at 8.

29. Proposed Rule 6e-2 at paragraph b(13)(i), ICA Rel. No. 9104.

### Background

Reinstatement is specifically required by the regulation as a policy provision for VLI contracts. It is intended here to fulfill the same purpose as reinstatement provisions in other life insurance forms.

The one significant difference is the requirement that a policyholder, instead of paying overdue premiums and indebtedness, pay 110% of the cash value increase if it is greater than the aggregate amount of overdue premiums and indebtedness. If the cash value increase is not greater, then the traditional reinstatement rule would apply -- i.e. payment of overdue premiums at interest.

The purpose of this variation on the usual reinstatement rule is to prevent policyholder speculation against the insurer. In the variable life context, a policyholder could lapse and wait for up to two years to see the results of the separate account investment performance. Without the 110% cash value requirement it is possible that the policyholder would reinstate and be put into a better position than he was prior to the policy lapse -- a result inconsistent with the purpose of reinstatement provisions.

### Proposed Change

The change suggested is a recasting of the reinstatement policyholder payment requirement in order to allow insurers to collect overdue premiums on incidental insurance benefits in addition to the payment by the insured of 110% of the cash value increase. As explained by the Council, the rationale for this change is that "if the cash value collection were applicable, there would be no specific collection for the overdue premiums on incidental benefits."<sup>30</sup>

### Recommendation

The Council's explanation of this change is not persuasive. If the cash value collection applies, not only is there no specific collection for overdue incidental benefit premiums, neither is there any specific collection of premiums for primary benefits, indebtedness or anything else except increased cash value. The challenge of this provision seems to be cast in terms of the insurer not getting on reinstatement what it would otherwise have gotten if the policyholder did not default in payment of premiums. In this light, the explanation is not plausible. The insurer, by definition under the cash value collection provision, would be entitled to an amount greater than all overdue premiums and indebtedness.

The apparent objective is to further raise the barrier to speculation against the insurer. However, no explanation of this objective is provided and therefore it is recommended that the Council's proposed change be rejected.

### 7. 18 Month Exchange Privilege, Art IV. Sec. 3f

Section 3f attempts to provide a reasonable basis for a VLI policyholder to convert his policy to a fixed benefit form of life insurance without unfairly incurring acquisition costs and current questions of insurability. This provision was included in recognition of the complexity of the VLI product and the resulting possibility that an applicant may not understand at the time of issue exactly what he has purchased. In this light, this provision stands with other provisions of the regulation, such as the requirement for standards of suitability (Art. III Sec. 3) and the free look requirement (Art. IV Sec. 3a), which together operate to ensure that policyholders have an opportunity to evaluate the product and conform their decision for a reasonable time after purchase to their insurance needs.

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30. 1976 Proc. II 642.

The exchange is subject to the following conditions:

1. The new policy must bear the same date of issue and issue age as the original VLI policy;
2. the new policy is issued on any plan of permanent insurance offered by the insurer or an affiliate on the date of issue of the variable life insurance policy and premium rates in effect on that date for the same class of insurance;
3. the policy includes such riders and incidental insurance benefits as were included in the original policy if such riders and incidental insurance benefits are issued with the fixed benefit policy. If the conversion results in an increase or decrease in cash value, such increase or decrease will be payable to the insurer or the insured as the case may be;
4. The insurer must apply as an advance premium on the new policy any excess of the accrued premium on the original variable life insurance policy from the date of issue to the date of request for exchange over the corresponding accrued premium on the new fixed benefit policy, except that any portion of such excess which is less than a regular mode premium on the new policy may either be applied as an advance premium or refunded in cash at the option of the insurer; and
5. The insurer shall not require evidence of insurability for this exchange.

#### Background

This provision like a number of others in the regulation was developed partly in response to the SEC's expectation that state regulation should provide relevant investor protections as a condition to the VLI exemptive Rule 3c-4. Unlike the SEC's redeemability requirement for periodic payment plans (a characterization which the SEC extends to VLI),<sup>31</sup> life insurance cannot equitably be made to be freely redeemable.

The 1940 Investment Company Act does contain a redeemability requirement during the first 18 months of a periodic payment plan contract within which time a purchaser may surrender his contract and be paid the value of his account plus any sales charges in excess of 15% of the gross payments made. The 18 month exchange privilege in the model regulation was developed partly as an alternative to the redeemability concept of the 1940 Act.

#### Proposed Change

The Council proposes to revise Section 3f in order to make it workable. As currently drafted the provision may operate inequitably and produce a windfall upon exchange in certain circumstances. The proposed amendments would eliminate the specified mathematical basis of the exchange and instead require a filing of the mathematical basis of exchange used with the commissioner. In addition, rather than providing a choice among fixed benefit plans to which a VLI policyholder may convert, the amendment would require only the offering of "a substantially comparable plan of permanent insurance."

#### Recommendation

The minutes of the Variable Life Insurance Subcommittee meeting of December 3, 1974 explain the subcommittee's position on the current section 3f:

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31. ICA Rel. No. 9104 Dec. 30, 1975 - Proposed Rule 6e-2 Relating to Separate Accounts Formed By Life Insurance Companies To Fund Certain Variable Life Insurance Contracts.

After lengthy deliberation, the subcommittee adopted several technical amendments . . . . The subcommittee recognized potential problems in former Article IV Section 3(g) (as amended, 3f). Therefore the chairman directed the actuarial members of the subcommittee to study the ALIA amendments proposed to remedy this situation and to make further suggestions so that the subcommittee will be in a position to act accordingly.<sup>32</sup>

Furthermore, the adopted regulation itself notes that this section is "AWAITING PROPOSED TECHNICAL AMENDMENTS." In the interim since the 1974 meeting, Robert A. Lomicky, New York Insurance Department, has reviewed the exchange privilege provision for the benefit of the (C4) Subcommittee in a memorandum attached to the minutes of the subcommittee meeting of June 9, 1975.<sup>33</sup> Mr. Lomicky therein discusses the deficiencies of the current provision.

Apparently, an NAIC actuarial review of the ALIA proposal for change of this provision has not yet been completed. Therefore it is recommended that the subcommittee refer the Council's recommendation for revision of Section 3f to an actuarial task force as contemplated by the subcommittee in December, 1974, subject to the further direction to report back prior to the next Regular Meeting of the NAIC in December, 1976.

#### 8. Deferred Payment of Death Benefits, Art. IV Sec. 3o

The regulation in this section requires a mandatory policy provision to the effect that payment of variable death benefits in excess of the minimum death benefits, cash values, policy loans or partial withdrawals or surrenders may be deferred for up to six months (or longer if either the New York Stock Exchange is closed for trading or the SEC declares that a state of emergency exists).

#### Proposed Change

According to the Council, as presently worded the six month deferral provision would improperly apply to payment of variable benefits, while the NYSE closing and SEC emergency provisions would improperly apply to benefits which are not based on the separate account.

#### Background

Section 3o was intended to provide a cushion against periods of financial difficulty when there may be a run against an insurer that could jeopardize remaining policyholders and unduly present financial difficulties to the insurer.

The Standard Nonforfeiture Law is the source and this provision was included in the VLI regulation for largely the same reasons that it applies to other forms of cash value life insurance. As explained by one authority, the Standard Nonforfeiture Law

permits a company to postpone payment of the cash surrender value for a period of six months after demand therefore and surrender of the policy. This delay clause was given statutory sanction in order to protect the companies against any losses that might otherwise arise from excessive demands for cash during an extreme financial emergency such as occurred in 1933.<sup>34</sup>

Originally, this provision was viewed as a carryover from regulation of fixed benefit life insurance in most states and provided a straight forward deferral privilege for the insurer that would allow delay in payment of cash values, policy loans, or partial withdrawals for up to six months. The NYSE closing and SEC emergency provisions were originated in industry comments. During the drafting process, this provision was further refined.

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32. 1975 Proc. I 752.

33. See 1975 Proc. II 457-460.

34. McGill, Life Insurance, Revised Ed. 1967 at 317.

Currently, the Council proposes a change that would render the six month deferral period inapplicable to payments which depend on the investment performance of the separate account (e.g. cash values). The explanation attributes this to the fact that the current provision "would improperly apply to payments of variable benefits."<sup>35</sup> No further explanation is provided.

Presumably, dual regulation of VLI by the SEC and the states is the reason for the noted impropriety. Section 22(e) of the 1940 Investment Company Act prohibits investment companies from suspending or postponing the date of payment or redemption of securities for more than 7 days. To an extent, the proposed Rule 6e-2 for variable life insurance would provide some relief to the Section 22(e) requirement. Proposed Rule 6e-2 (at (b)(11)(ii))<sup>36</sup> exempts the separate account from Rule 22(e) to the extent necessary, *inter alia*, to comply with insurance laws and regulations subject to the condition that the "board of directors of the separate account" determine that this is "reasonable, fair, and not discriminatory to the interests of the affected contractholder . . ."<sup>37</sup> It is assumed that the term "board of directors of the separate account" means a separate account committee that would be elected by the policyholders. However, it is not clear that the SEC is fully prepared to recognize a mandatory policy provision reserving a six month deferral period as fair and reasonable with respect to the interests of the affected policyholder. EVLICO, the only insurer to be exempted currently from provisions of the 1940 act for purposes of marketing VLI, has not included a six month deferral provision as contemplated in the NAIC regulation in its contracts filed with approved by the SEC. The six month deferral period apparently was of concern to the SEC and was among specific questions directed to the NAIC during proceedings on exemptive Rule 3c-4.<sup>38</sup>

The commentary to the model regulation explains that

without this provision, the commissioner might be in the position of being able to protect the policyholders in a liquidation only to the extent of the reserves in the general account, again illustrating the danger of dual authority over this accounting mechanism.<sup>39</sup>

#### Recommendation

Unless the subcommittee decides to accept dual regulation of VLI by the SEC and the states, it is strongly recommended that this provision be retained without change. The only purpose served by its amendment would be to make the model regulation compatible with anticipated SEC regulation. This change, obviously, would be at the expense of the purposes for inclusion of the deferral requirement which are articulated above.

#### 9. Settlement Options -- Fixed Basis Only, Art. IV Sec. 3p

The current provision requires that settlement options be provided on a fixed benefit basis only. According to the commentary, the sole purpose for inclusion of this subsection was to allay any questions of dual regulation that might arise as a consequence of the inclusion of variable settlement options.

#### Proposed Change

The Council would eliminate this provision in order to avoid the requirement that a policyholder desiring an SEC regulated variable annuity settlement first surrender the variable policy and then purchase a separate variable annuity. This objection cites the needless expense associated with this form of replacement.

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35. See Attachment 1 at 8.

36. ICA Rel. No. 9104, Dec. 30, 1975.

37. *Id.*

38. NAIC Comments In Response to SEC Questionnaire, filed with the SEC Aug. 14, 1974, 1975 Proc. I 932.

39. 1975 Proc. I 819.

### Recommendation

Continuance of this provision in the event of dual SEC-state regulation would be unnecessary, and in that event its deletion is recommended. However, this provision should be retained pending the outcome of the NAIC's and individual state's interest in litigating the question of jurisdiction with the SEC.

The (C4) Subcommittee was not convinced that variable settlement options would result in SEC attempts to regulate this portion of VLI operations, but they nevertheless included this provision rather than risking any possibility of dual regulation under the Rule 3c-4 exemption scheme. The subcommittee's concern remains relevant if the issue of SEC jurisdiction is pursued.

#### 10. Policy Loans - Art IV Sec. 4b

As adopted, the model regulation includes a detailed policy loan provision. The Council has proposed a revision that would conform the VLI regulation to existing life insurance regulation in one additional respect.

### Proposed Change

The Council's proposal would modify the language at the beginning of the policy loan section to mandate the availability of loans only after a specified period during which premiums have been paid. This period is to be set in the regulation according to state law - e.g. Illinois and New York provide a three year period for other forms of cash value life insurance.

Supporting this revision, the Council offers language in the Model Regulation's commentary which emphasizes the subcommittee's observation on the similarity of VLI to other forms of life insurance and the desire to draft the policy loan requirements for VLI so as to resemble as nearly as possible regulatory requirements for other life insurance.

### Recommendation

It is recommended that the Council's proposed change be accepted. The apparent purpose served by inclusion of the additional language is the same that applies to other forms of life insurance. In the early months of a new cash value policy there will normally be little or no cash value upon which policy loans can be based. No persuasive regulatory concern would normally be served as a practical matter by requiring the availability of policy loans in the early months of a policy. The additional language, like existing regulatory provisions for fixed benefit policies, is permissive.

One additional caveat, however, may be relevant in the VLI situation. Assuming there is dual SEC-state regulation of VLI, it is clear that insurers will be either forced or strongly encouraged to provide substantial early cash values. This result is a consequence of the sales load requirements of the 1940 Investment Company Act that the SEC intends to apply in a modified format as detailed in the SEC's proposed Rule 6e-2.<sup>40</sup> As expressed in this rule the definition of sales load for VLI starts with the gross premium and specifies the permissible charges or amounts that may be subtracted to identify the sales load. The insurer needs to subtract amounts large enough to come within the sales load limitations. First on the list of items to be subtracted is the first year cash value or cash value increases in subsequent years. Commissions to agents and other sales or promotional expenses are not included in the definition. The sales load cannot exceed both an average of 9% over 20 years and 50% in the first year. The redeemability provision also tends to encourage early cash values. Together, these provisions make it difficult for insurers to comply with SEC rules without creating substantial early (including the first year) cash values.

To the extent that relatively high, early cash values exist, it becomes less relevant to forestall the applicability of the state requirement for availability of policy loans. This suggests that the additional language should be reconsidered in the event of dual regulation. Nevertheless, the Council's proposed change would be consistent with an insurance versus investment characterization of VLI. To this end, the amendment would lessen the possibility of a policyholder looking on the short run nonforfeiture benefits, specifically policy loans, as being of predominant interest over the death benefit. Also relevant on this point is the insurer option in Section 4b to use the term "partial withdrawal provision" rather than the term "policy loan."

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40. ICA Rel. No. 9104, Proposed Rule 6e-2 at paragraph (b)(13)(i).

11. Charges Against the Separate Account, Art. VI Sec. 7a(4) and Art. VI Sec. 1d

Art. VI Sec. 7a(4),(5)

At Sec. 7a of Art. VI, the regulation specifies permissible charges that may be deducted from the separate account. These include (1) taxes, (2) brokerage fees, (3) the tabular cost of insurance, (4) charges for investment management expenses, (5) mortality and expense guarantees, and (6) any amounts in excess of those required to be held in the separate account (surplus). The provisions put in issue by the Council's proposed change are Section 7a(4) and (5), the maximum investment management charges and mortality and expense guarantees.

In accordance with these provisions, insurers may not deduct more than ½% for mortality and expense guarantees plus .75% graded down to .30% for investment management. The gradations provide for smaller investment management charges as the total value of separate account assets increase.

Proposed Change

The Council has proposed that the specific maximum percentage of assets that may be deducted for investment management and mortality and expense guarantees be deleted. In lieu of the specified limitations, the Council suggests disclosure of the applicable charge in the policy.

Three reasons are offered in support of the change:

- (1) Specific charges are not appropriate;
- (2) Specific maximum charges were not included in the Variable Annuity Regulation; and
- (3) the effect of the disclosed charges will be apparent to consumers in illustrations of different hypothetical gross rates of investment return. More specifically, the higher the asset charge, the lower will be the illustrated death benefits and cash values.

Background

The limitations on asset charges were included in the regulation primarily as a means of avoiding subtle distinctions in policy benefits that would not be readily apparent for most VLI purchasers comparing one VLI policy with another. The intention of these limitations was to place greater emphasis on competition in the premium where price-benefit comparisons are more feasible for policyholders. In short, the subcommittee's concern with cost comparison led to the inclusion of the asset charge limitations.

Early drafts of the Model Regulation contained a flat 1½ percent "asset charge" against the assets allocated to the separate account. Various insurers intended to fund everything from premium taxes to investment management fees to brokerage fees to a substantial amount of profit from this source. "Charges" against investment income are not unusual in calculating fixed benefit life insurance dividends. Thus, it was not unreasonable to assume that such charges would appear in variable life insurance since they serve as a means to more equitably apportion some costs associated with the operation of the policy. However, for the reasons described in the commentary to the regulation, the subcommittee determined to strictly regulate this area. This Section was not the result of any illusion that it would reduce the cost of variable life insurance, except perhaps through competition resulting from increased disclosure.

At the time of the early drafts of the model regulation, various insurers sought to impose a total asset charge of from .5% to over 2%. It was at this time that the subcommittee noted the apparent relationship between premium levels and "asset charges" and determined to act. Not surprisingly, they found that insurers which had a high "charge" against the separate account could afford to set its premiums on a relatively low level.

It would be next to impossible for a prospective purchaser to determine the true comparative cost to him of a percentage charge against separate account assets. In other words, the difficulty of comparing the cost of a policy with high premiums and a low separate account charge with a policy with low premiums and a high charge would be formidable at best. The high premium policy might well be a better buy, all other things being equal. The premiums for a policy with high charges against the separate account may be almost deceptively low since much of the cost of the policy would be reflected only in the calculation of the net investment return. Further, a charge in excess of actual or reasonably estimated costs tends to discriminate against long duration policyholders as their cash values increase.

High charges against the separate account tend to decrease the policy's ability to increase benefits while simultaneously increasing the chances of decreasing benefits and increasing the cost of the initial face value guarantee. As separate account asset charges increase, there is a concomitantly greater level of gross investment return necessary to sustain or increase policy benefits.

In light of these concerns the subcommittee determined to impose severe limitations on these charges. The intention of this Section is to allow only those expenses which could be justified as more reasonably related to the operation of the separate account than to premium income and to require all other expenses to be derived from premiums.

The intention for and argument behind this limitation was in no way based on the assumption that by doing so the total cost of variable life insurance will in any way be reduced. The subcommittee fully recognized that it will cost X dollars to run a policy of a given benefit design regardless of whether that money comes from the asset charge or the premium. It is recognized that less flexibility in the asset charge will force companies issuing variable life insurance to place more of their costs including profit in their premium. The theory is that the cost to the policyholder is much more visible in the premium than it is in an asset charge to which he finds it almost impossible to relate. The subcommittee determined, in effect, that it is inherently misleading to show a low premium and a high asset charge. If, in fact, the premium for variable life insurance is forced realistically to the point where there may be an unreasonable relationship to the premiums for fixed life insurance, the policyholder is entitled to be able to see this relationship. The subcommittee hoped that by setting asset charges at a very low level that the maximum charge would become, in effect, almost a universal charge and that cost differences would be reflected in premiums which were more easily comparable. With the strict limitation, variation would at least be reduced if not eliminated.

#### Recommendation

It is strongly recommended that the specific asset charge limitations for investment management and mortality and expense guarantees be retained. The reasons expressed above for the inclusion of these provisions have not been altered by intervening events.

The Council urges that the impact of varying asset charges "will be quite apparent" because of hypothetical benefit illustrations of death benefits and cash values over a period of years. It was precisely for the contrary reason that the asset charge limitations were included in the model regulation.

The theory underlying this provision is that the cost to the policyholder is much more visible in the premium than is an asset charge to which policyholders will not easily relate. The most obvious, though not necessarily accurate, basis of comparison of policies of the same initial or minimum face value is the premium. Without the asset charge limitations there is a danger that it will be inherently misleading to show low premiums and high asset charges, despite projections of hypothetical future values. For these reasons, the subcommittee's objective of eliminating the distortion caused by wide variations in asset charges should continue to be met by retaining the current provision.

It is being argued by the Council that adequate disclosure is sufficient to make the subtle effects of low versus high asset charges reasonably evident to purchasers and policyholders. In the event that there is sentiment within the subcommittee to accept the proposed deletion of the asset charge limitations, it is suggested that the disclosure implicit in the hypothetical illustrations be made more explicit by supplemental, conspicuous disclosure requirements. For example, as the asset charge increases, a higher gross investment rate must be returned to maintain or increase benefits relative to low asset charge policies. An explicit disclosure of this result might take the following form:

The death benefit of this policy will not increase above the initial face value unless the investment experience of the Separate Account exceeds \_\_\_ %.

Art. VI Sec. 1d

Subsection d is in a Section dealing with the establishment and administration of separate accounts. This particular subsection limits the ability of an insurer to establish more than one separate account for VLI. The Council has proposed the deletion of the last sentence of subsection d which follows: "The creation of additional separate accounts to avoid lower maximum charges against the separate account is prohibited."

In the event that the Council's proposed deletion of Art. VI Sec. 7a (maximum asset charge limitations) is accepted, this provision would become irrelevant and should then likewise be deleted. However, it is recommended that this provision be retained along with the current asset charge limitations.

12. Standards of Conduct, Art. VI Sec. 8 and Conflicts of Interest, Art. VI Sec. 9 (See also Valuation of Assets, Art. VI Sec. 5b)

Section 8 Standards of Conduct

In this Section on standards of conduct (Sec. 8) the model regulation provides the minimum standards of duty and care which are owed to policyholders by the insurer. According to the last sentence of Section 8, the standards must contain certain items specified in Section 9, Conflicts of Interest. The Council recommends deletion of this last sentence because of changes recommended in Section 9b.

Section 9 Conflicts of Interest

Section 9a

Section 9a incorporates by reference any provisions of the state's insurance laws applicable to the officers and directors with respect to conflicts of interest. The final sentence of this subsection provides that "The Board of Directors of the insurer shall be responsible for all acts concerning the separate account."

Proposed Change (Sec. 9a)

Although Section 9a makes reference to a "separate account committee", the Council's use of the term has somewhat different connotations than intended in the model regulation. As explained by the commentary and the model regulation this term was intended to include any form of internal management group responsible for the operation of the separate account.<sup>41</sup> For example, if an insurer did not form a VLI subsidiary but rather formed a new committee within its board of directors, this would be the type of group or committee referred to by the regulation. The Council, on the other hand, uses the term "separate account committee" to refer to those persons who would be selected by policyholders through exercise of their voting rights. With SEC regulation the separate account would normally be under the general supervision of the separate account committee in order to comply with the 1940 Act.

With this explanation in mind, the purpose of the Council's proposed change is clear. In order to comply with the voting requirements of the 1940 Act, the committee elected by the policyholders must have supervisory control over the separate account. The last sentence of Section 9a, however, "was meant to preclude policyholder voting for the management of variable life insurance operations."<sup>42</sup>

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41. 1975 Proc. I 837.

42. Id. at 838.

### Recommendation

The inclusion of the provision requiring the board to be responsible for all acts concerning the separate account was in other words, intended to preclude any delegation by the board to any other group, including policyholders. This was in recognition of the inseverable nature of the separate account from the insurer and its general account. Therefore, in order to market VLI in literal compliance with both the securities laws and state regulation under the model regulation, it would apparently be necessary to eliminate the sentence as proposed by the Council.

Should an individual state with the model or the NAIC choose to litigate the matter of VLI jurisdiction with the SEC, it is recommended that Section 9a not be revised. The provision usefully illustrates the regulatory conflict that may attend dual regulation of VLI. If the matter of dual regulation is conceded by the NAIC, then it would be appropriate to accept the Council's proposed change in order to make state and federal regulation compatible.

### Art. IV Sec. 5b

The Council has recommended the addition of language to recognize the existence of separate account committees. This subsection deals with valuation of separate account assets in the event that trading ceases in an asset held by the separate account. Currently, the provision puts the responsibility of valuation on the board of directors. The Council would add, alternatively the committee of the separate account in order to comply with the 1940 Investment Company Act. Disposition of this proposed change should follow the decision on Section 9a, above.

### Section 9b, c, and d

Subsection b requires advance approval by the commissioner for certain transactions that present potential conflict of interest situations. Subsection c provides clarification of the fact that the enumerated practices in subsection c are not prohibited by subsections a and b. Subsection d preserves the commissioner's power to approve transactions otherwise prohibited under subsection b if they are found to be fair and equitable.

### Proposed Change

In order to avoid conflicting standards for separate accounts and other general regulatory requirements applying to the life insurance business, the Council proposes to delete all of subsection b, most of subsection c, and all of subsection d. The subcommittee is asked to recognize that the states have exercised other existing authority to prevent conflicts with all types of separate accounts for this reason, these new additional and complex rules are said to be unnecessary.

### Background and Recommendation

The language present in Section 9b, c, and d of the regulation was by and large included in ALIA recommendations of May 25, 1973 to the subcommittee.<sup>43</sup> To some extent these provisions were developed in response to exemptive Rule 3c-4 and the SEC's desire to see state regulation provide material protections to purchasers substantially equivalent to the related protections that would be available under the Investment Company Act.

Although parts of Section 9 were drawn from Section 17 of the Investment Company Act dealing with Transactions of Certain Affiliated Persons and Underwriters, the model regulation goes beyond securities law requirements to address the conflicts of interest question in a manner appropriate to VLI. Unlike securities law concepts, the model regulation is concerned not only with protection of VLI policyholders but with equitably balancing their rights with those of fixed benefit policyholders. In this sense, the emphasis of the VLI conflict of interest protections in the model is materially different than in a securities law context.

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43. 1975 Proc. I 553.

Of particular concern to the subcommittee in drafting the regulation was the need to prevent possible abuses in joint transactions:

It appears to the subcommittee that there are a number of possible abuses in joint transactions, whether involving purchases of securities or some of the investments. To avoid these abuses, we recommend that in addition to the normal conflict of interest rules, it be a general standard that the VLI separate account must participate on a basis not less favorable than the participation of the general account, other separate accounts, or other insurer affiliates. We construe this standard to require essentially that the costs of the transaction follow the benefits. For example, where an order is only partially filled and, rather than divide the shares pro rata, it is decided to place all shares in one entity, that entity should bear the cost. In general, the separate account should never occupy a disadvantageous position vis-a-vis other affiliates. Put another way, the insurer should never favor the general account or any affiliate over the VLI separate account.<sup>44</sup>

These concerns with joint transactions are specifically addressed in Section 9b(4) and c(2).

Despite the fact that these conflict-of-interest provisions do not seem to be crucial to the model regulation, no particularly persuasive reason has been advanced for their deletion. First of all, the NAIC is not prepared to acknowledge the inevitability of permanent SEC regulation of VLI. Secondly, the orientation of these Section 9 provisions is cast in terms of protecting all the insurer's policyholders, fixed and variable, rather than the VLI contractholder alone as in the securities law perspective. Finally, the Council has not documented in any respect how the present VLI conflict of interest standards in the model regulation would, conflict with other state conflict of interest standards. Consequently, it is recommended that the present provisions be retained.

13. Investment Advisory Services to a Separate Account, Art. VI, Sec. 10

The model regulation includes provisions dealing with investment advisory services provided to the separate account. Since a separate account is not a distinct entity, it cannot contract with an investment advisor. Consequently, this section is not applicable to an insurer's internal investment management but rather applies to outside investment management services that may be utilized by an insurer for the separate account. These provisions include filing requirements regarding the investment advisor, qualifications of the advisor, a requirement that the investment advisory contract be in writing and subject to termination on 60 days notice, and disapproval power vested in the commissioner for an investment advisory contract.

The Council is proposing deletion of part of this section and the addition of language to recognize that the investment advisor may be an investment manager under the 1974 Employee Retirement Income Security Act (ERISA) rather than an advisor registered under the 1940 Investment Advisors Act. This latter recommendation appears to be a housekeeping change that is entirely acceptable.

The proposal for deletion of Section 10 material is not altogether clear. The explanatory comments filed with the subcommittee point out that Section 10 is a

lengthy and detailed provision... [which] finds its counterpart in the Investment Advisors Act of 1940... and was included... to provide "substantially equivalent protections." Deletion of the detailed requirements is recommended.<sup>45</sup>

In general the precise recommended changes throughout the model are detailed in the council's submission of a complete text of the regulation with deletions in brackets and new material underlined. The presentation of detailed changes includes only one deletion from Section 10, namely subsection a(3) which sets forth the requirement that the investment advisory contract be in writing and subject to cancellation on 60 days notice. From the explanatory comments, it appears that further, unspecified deletions are advised.

44. (Unpublished Memorandum of May 8, 1973 to the Variable Life Insurance Subcommittee from NAIC Counsel, Bruce Clements).

45. See Attachment 1 at 12-13.

### Recommendation

Most of the provisions in Section 10 would not be crucial to state regulation whether or not dual regulation of VLI becomes firmly implanted. Whatever the outcome of current jurisdictional questions, it is recommended that the model retain the filing requirements for investment advisory services in Section 10a(2)(A) to (C) and the power of the commissioner to disapprove an investment contract "if he deems continued operation thereunder to be hazardous to the public or the insurer's policyholders."<sup>46</sup>

The specific deletion of Section 10a(3) (writing requirement and insurer's 60 day cancellation) is proposed by the Council with the explanation that the provision is another specific SEC requirement that is adequately covered elsewhere in the regulation.

Although the provision concerning cancellation on 60 days notice does not appear elsewhere in the model regulation, its deletion does not appear to be objectionable. The insurance commissioner's interest in protecting the public from an unfair or hazardous investment advisory contract is still served by other portions of the regulation in Section 10b, which allows the commissioner to terminate an advisory contract after a hearing on 60 days notice.

In summary, it is recommended that the Council's specific proposals for change appearing in the revised text of the model regulation on Section 10 be accepted.

### 14. Information Furnished to Applicants, Art. VII

#### Background

Article VII includes a series of disclosure requirements that are designed to provide the insured with an accurate portrayal of this insurance product. The primary concern of the subcommittee was that the insured realize that VLI is an insurance product (rather than some other investment vehicle) and that the prospect be provided with enough information with which to make an informed judgment as to whether the purchase of any particular policy is consistent with the needs he perceives.

At the time the model regulation was drafted, it was assumed that the SEC would be heavily involved with VLI disclosure under the 1933 Securities Act and its prospectus requirements. The model regulation in addition to the anticipated securities law requirements, specifies disclosure of the principal features of the policy, the investment policy of the separate account, a history of the net investment return of the account, commissions, fees and charges, methods of valuing assets, tax consequences of a VLI policy, limitations of illustrations of future benefits, and a statement clearly emphasizing the insurance nature of the product.

Noting the assumed application of the 1933 Securities Law, the commentary to the model regulation goes on to point out that if the SEC were eventually found to lack VLI jurisdiction, then:

the Model Regulation would have gone further in the area of disclosure. If the jurisdiction of the SEC under the 1933 Act is found not to exist, immediate further activity . . . is contemplated.<sup>47</sup>

#### Proposed Change

Deletion of most of Article VII is recommended by the Council because of the overlap and possible conflict with SEC requirements.

The Council also proposes to revise the introductory requirement of delivery and written acknowledgment of disclosure materials to reflect merely the need to deliver an SEC registered prospectus or materials required to be furnished under ERISA if that law is instead applicable. The latter ERISA language is new.

46. Model regulation, Section 10b.

47. 1975 Proc. I 840.

### Recommendation

The Council's additional language relating to ERISA disclosure requirements is a minor housekeeping change that is not objectionable. However, the commentary to the model regulation is largely dispositive of the Council's Article VII proposed deletions. In the event that litigation of the SEC jurisdiction issue is pursued, it is clear that subcommittee expected not only to retain the current provisions but to further supplement them if the SEC were found to lack jurisdiction. If dual regulation continues, the regulatory impact on Article VII would properly be viewed as substantially similar to the situation when the regulation was developed. It is recommended that the current provisions be retained.

Among the most fundamental concerns of state insurance regulators with development of VLI products is the emphasis in marketing efforts that will be conceived to promote the product. The NAIC's position in SEC proceedings and the position of the subcommittee in drafting the VLI regulation is perspicuous on the point of insurance versus investment characterization. In response to an SEC questionnaire, the Chairman of the NAIC Variable Life Insurance Subcommittee in 1974 explained that:

sale [of VLI] as a security would be misleading to the public. For this reason we are deeply concerned that the commission's present requirements that variable life insurance be sold in the accompaniment of a prospectus may have the effect of misleading the public . . . .<sup>48</sup>

Obviously, dual regulation of VLI would result in marketing the product with an SEC prospectus. If the mere existence of a mandatory prospectus lends an undesirable investment aura, the need of additional insurance disclosure regulation is self evident.

### 15. Reports to Policyholders, Art. IX Sec. 2

Article IX lists statements that are required to be furnished annually to VLI policyholders. In Section 2, this includes:

- (1) a summary of the separate account financial statement;
- (2) net investment return;
- (3) portfolio list;
- (4) disclosure of charges, taxes, fees;
- (5) portfolio turnover rate;
- (6) any change in investment policy;
- (7) identity of broker;
- (8) a list of officers and directors; and
- (9) controlling owners of the insurer.

### Proposed Change

The council urges deletion of all of Section 2 because the "requirement is burdensome and unnecessary."

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48. NAIC Comments in Response to the SEC Questionnaire, filed Aug. 14, 1974, 1975 Proc. I 986.

### Background

Again it must be emphasized that the model regulation was drafted in a period in which it was assumed that SEC disclosure requirements in the 1933 Securities Law would apply. The rescission of the Rule 3c-4 exemption and the applicable SEC disclosure requirements have no new bearing on revision of Article IX.

The model regulation was designed to provide VLI policyholders with as much relevant information as possible at a time when it is useful and in a manner that avoids vastly increased administrative costs. Accordingly, the model regulation allows mailing of the Section 2 information with an annual statement of death benefits, cash values, and indebtedness required in Section 1. It was contemplated that all of this required information could be furnished with the premium notice, providing the insured with information at a time which enables him to make an informed decision on continuing the policy and allowing the insurer to make a single mailing.

Any discussion concerning what is "adequate" disclosure must recognize that any standards for disclosure will be somewhat subjective. There is virtually no limit to the variety and quantity of information that might be provided. The objective of the subcommittee in drafting the model regulation was to require that enough information be provided to the VLI policyholder or prospect so that he may make an informed judgment about the policy. It was recognized that:

Submerging the prospective purchaser [or policyholder] with information can as a practical matter thwart the purpose of disclosure as well as failing to provide sufficient information.<sup>49</sup>

The subcommittee did attempt to limit information that must be provided to that which would be understandable, relevant, and useful.

### Recommendation

The insurance industry has had ample opportunity to provide input on the inclusion and content of Article IX, Section 2. Various objections were voiced in the past during the drafting of the regulation. However, no new intervening circumstances since the adoption of the regulation would lead now to a different result. It is therefore recommended that Section 2 of Article IX be retained.

#### 16. Foreign Companies Article X

This Article is proposed by the Council as an addition to the model regulation. The entire provision follows:

If the law or regulation in the place of domicile of a foreign company provides a degree of protection to policyholders and the public which is substantially equal to that provided by these regulations, the commissioner, to the extent deemed appropriate by him in his discretion, may consider compliance with such law or regulation as compliance with these regulations.

The use of the word "foreign" is assumed to mean insurers domiciled in another state. According to the Council:

Use of this provision . . . would afford the commissioner useful flexibility to handle presently unforeseen problems through the exercise of sound discretion.<sup>50</sup>

### Recommendation

While the proposed additional language is not objectionable from the standpoint of literally altering the intents and purposes of the model regulation, it may on a practical basis be undesirable. This provision gives formal recognition to a procedure to waive the requirements of the model regulation when the commissioner finds "substantially equal" regulation in the state of domicile. This may introduce the unwanted question of what is "substantially equal", and eventually inundate the commissioner's office with requests for exemptions under the new Article X.

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49. 1975 Proc. I 840.

50. See attachment 1 at 14.

In addition, it may tend to defeat the worthy purpose of promoting uniformity in regulation of variable life insurance. As noted in comments on the proposed changes of Article III Section 1, the subcommittee anticipated a high degree of uniformity from state to state in VLI regulation, especially in the areas of permissible investments and methods of changing investment policy. The regulation was drafted in such a way as to stimulate uniform adoption by the several states. Because the means to achieve this objective may arguably produce "unfair" results in the case of individual insurers, no doubt, an insurer domiciled in a state with a regulatory scheme that precludes the insurer's marketing in a model regulation state would seek relief under Article X. There may develop a resulting pattern of relying on the Article X exemption to the substantial detriment of the model regulation's uniformity objective. For these reasons it is recommended that the Article X addition be rejected.

In the event that some form of Article X is ultimately determined to be acceptable to the subcommittee, it is urged that the proposed Article X type relief be considered alternatively on a section by section basis. That is, where the Council can articulate foreseeable problems of compliance with a scheme of VLI regulation because of state to state variations or situations where Article X relief is otherwise desirable, something equivalent to Article X could be provided for that particular situation by inclusion of similar language in the particular provision of the model. This at least would seem to be a more reasonable regulatory posture than the suggested provision which would say, in effect, that the entire model regulation may or may not apply depending on some imprecise and arbitrary standard to judge how the insurer is regulated elsewhere.

ATTACHMENT 2

RESOLUTIONS TENTATIVELY ADOPTED\*

Variable Annuities and Other Contracts (C4) Subcommittee  
 Hartford, Connecticut  
 May 16th and May 17th, 1973

Resolution No. 1

Resolved that:

- a. No person may sell or offer for sale in this state any variable contract unless such person is an agent and has filed with the commissioner, in a form satisfactory to him, evidence that such person holds any license which may be required for solicitation or sale by any federal securities law.
- b. Any examination administered by the Department for the purpose of determining the eligibility of any person for licensing as an agent shall, after the effective date of this regulation, include such questions concerning the history, purpose, regulation, and sale of variable contracts as the commissioner deems appropriate.

Resolutions No. 2 and No. 3

Resolved that:

The variable life insurance policy offered for approval must meet the following tests:

- a. Coverage is to be provided for the lifetime of the insured with the mortality and expense risk borne by the insurance company.
- b. Gross premiums are to be a level amount for the duration of the premium payment period.
- c. The policy must provide a minimum face amount at least equal to the initial face amount as a death benefit, and some fixed or minimum level of nonforfeiture value for each thousand dollars of face amount.
- d. The amount payable upon the death of the insured will be no less than a minimum multiple of the gross premium payable in that year (exclusive of that portion allocable to any incidental insurance benefit) by a person who meets standard underwriting requirements, as shown in the following table:

<u>Issue Ages</u>	<u>Multiples</u>
0 - 5	80
6 - 10	71
11 - 15	63
16 - 20	55
21 - 25	47
26 - 30	40
31 - 35	33
36 - 40	27
41 - 45	21

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\* As further amended in Washington, D.C. on June 5, 1973.

<u>Issue Ages</u>	<u>Multiples</u>
46 - 50	15
51 - 55	13
56 - 60	11
61 - 65	9
66 - 70	8
71 and over	7

- e. Variable life insurance policies may provide that investment earnings in excess of the assumed earnings must be used to purchase either fully paid-up variable life insurance additional amounts or to purchase additional variable life insurance amounts based on the same level premium payment method as the basic insurance policy.

Resolution No. 4

Resolved that:

A policy whose variable benefits are based on the asset values of a separate investment account of the insurance company must include a brief description and designation of the separate account. The policy shall state that such separate account is:

- a. Used only for variable life insurance policies.
- b. Only available to cover liabilities of the insurance company to the extent the assets of the separate account exceed the liabilities of the separate account arising under the variable insurance contracts whose reserves are invested in the separate account, and
- c. Valued at least monthly.

Resolution No. 5

Policies may be issued on a participating or nonparticipating basis. If issued on a participating basis, the policy must offer the option of a cash payout of any dividend amount. In addition, the policy may offer the following options:

- a. The amount of the dividend may be credited against premium payments due,
- b. The amount of dividend may be applied to purchase paid-up amounts of insurance on either a fixed or variable basis, or
- c. Dividend payments may be accumulated in a fixed deposit account with at least a specified minimum rate of interest.

Resolution No. 6

Resolved that:

Any charges to be levied directly against the separate account must be set forth in the policy, and the treatment of any expenses directly associated with the purchase, sale, and maintenance of assets shall be described in the policy.

The policy must contain an adequate description of all factors reflecting the investment results of the separate account which are used in adjusting any variable values under the policy. The policy must further indicate which specific policy values will fluctuate on the basis of the separate account experience.

Resolution No. 7

Resolved that:

- a. The policy must include a grace period of at least 31 days from the premium due date and must be written so that policy values are not affected if the premium is paid within the grace period.
- b. A provision that the policy will be reinstated at any time within \_\_\_ years from the date of default, unless the cash surrender value has been paid or unless the period of extended insurance has expired, upon the application of the insured and the production of evidence of insurability, including good health, satisfactory to the insurer and the payment of an amount not exceeding the greater of (i) all overdue premiums and the payment of any other indebtedness to the insurer upon said policy with interest at a rate not exceeding 6 per centum per annum compounded annually, or (ii) 110% of the increase in cash surrender value resulting from reinstatement.
- c. The policy must include a description of the basis for computing cash surrender values under the policy. Such cash values may be expressed as either (a) a schedule of cash value amounts per one thousand dollars of total face amount at each attained age (or policy duration), or (b) a combination of one cash value schedule as described above for each one thousand dollars of original face amount and a second schedule applicable to any additional amounts of insurance under the plan at each age. A company must include language in the policy to permit deferring payment of the cash value for up to six months while an emergency is deemed to exist by the insurance commissioner of the state in which the insurance company is incorporated.

Resolution No. 8

Resolved that:

The method of calculation and application of any factors used to adjust variable values under the policy must be fully described.

The policy must include the actuarial basis on which policy reserves are computed including the interest assumption which must be the same as the assumed interest rate used for purposes of adjusting variable values under the policy.

Resolution No. 9

Resolved that:

The first page of the insurance policy or the first page and cover combined must contain:

- a. A prominent statement that the death benefit may be variable or fixed under specified conditions,
- b. A prominent statement that cash values may increase or decrease in accordance with the experience of the separate account,
- c. The minimum death benefit is at least the initial sum insured,
- d. The rule or reference to the policy provision for determining the variable amount of insurance payable at death, and
- e. The items currently required for fixed benefit life insurance policies.

Resolution No. 10

Resolved that:

The policy shall provide nonforfeiture options on both a fixed and variable basis on one or more of the following forms:

- a. Reduced paid-up insurance, and
- b. Extended term insurance.

Resolution No. 11

Resolved that:

A policy must contain either a policy loan provision or a partial withdrawal of cash value. (Further study will be given to this item.)

Resolution No. 12

Resolved that:

Any settlement options stated in the policy shall be provided on a fixed basis.

Resolution No. 13

Resolved that:

Policy riders providing double indemnity coverage, accidental death and dismemberment coverage, or other supplementary benefits may not be offered on a variable basis.

Resolution No. 14

Resolved that:

The policy must include the entire insurance contract.

The policy must designate which officers of the insurance company are empowered to make an agreement or representation on the company's behalf. The policies must include language indicating that statements by the insured, or on his behalf, shall be considered as representations and not warranties.

The policy must include definition of the owner of the insurance contract.

Any restrictions or requirements as to the designation, or change of designation, of a beneficiary shall be set forth in the policy. Provision shall also be made for disbursement of benefits in the absence of a beneficiary designation.

The policy must include any conditions or requirements concerning the assignment of the insurance policy.

The policy must describe any adjustments in policy values to be made in the event of misstatement of age or sex of the insured.

The policy may include an exclusion in the event of suicide within two years of the policy issue date.

Policy will include provision that it is incontestable by the insurance company after two years from the issue date.

Resolution No. 15

Resolved that:

Two "reports" are required. The first type of report would be a notice to each policyholder advising him of the amount of his cash value and death benefit as of a date reasonably close to the policyholder's anniversary date. Such notice could be integrated into the premium billing and the cash value and death benefit could not be computed as of a date more than 30 days prior to the policyholder's anniversary date. In addition to the cash value, death benefit and the premium due, this "report" or notice should include such items as the amount of any partial withdrawal, the interest charge and the amount of any optional payments.

The second report would furnish the policyholder, on an annual basis, a complete picture of the performance of the separate account. Such report would include a complete list of the holdings of the separate account with its current (as of the end of the calendar year) market or face value. The report should set forth the gross investment rate, including capital appreciation and depreciation, income and the net investment rate or rates. In addition, the asset charge expressed as a percentage of the assets of the separate account should be stated. Each annual report after the first should contain a comparison of the performance of the separate account during the current period with the performance in prior periods. Such comparison should, after the necessary time has elapsed, contain a comparison for at least five years.

Resolution No. 16

Resolved that:

The concept of an Attributed Fund, as detailed below, is adopted, subject to further review.

Attributed Fund

1. Purpose - the attributed fund as of the beginning of any valuation period is the fund which is invested in the Separate Account as of the beginning of the valuation period, upon which the changes in the policy values (death benefits and cash values) are determined subsequent to the completion of such period, based upon the investment performance of the attributed fund in the Separate Account during such period. The attributed fund must be determined separately for each policyholder.
2. Valuation Period - the period over which the investment performance of the attributed fund in the Separate Account is measured, for purposes of determining changes in the policy values (death benefits and cash values). This period may not exceed one year.
3. Minimum attributed fund - the attributed fund as of the beginning of any valuation period must at least equal the sum of
  - (1) the valuation net premium for such period based upon the initial amount insured, and
  - (2) the terminal reserve as of the end of the immediately preceding valuation period based upon the amount insured for the following valuation period.
  - (3) Both valued in accordance with the contract provisions and the commissioner's Reserve Valuation method at interest not in excess of the rate in the minimum reserve valuation standard and 1958 CSO mortality.
4. All variable life insurance policies must be credited with the full amount of investment income at the net rate of yield earned on the attributed fund during each valuation period.
5. The contractual provision concerning the changes in amount of death benefit shall be derived from an equation reflecting the foregoing requirements, except for reasonable and necessary approximations acceptable to the insurance commissioner or superintendent.

## ATTACHMENT 3

To: Members of the Variable Contracts (C4) Subcommittee  
 From: James M. Jackson, James Hunt, Jon S. Hanson  
 Re: NAIC Variable Life Regulation: Refund of Premium Provision  
 Date: September 18, 1973

The Variable Contracts (C4) Subcommittee is currently considering including in the model variable life regulation the following provision.

"(If the policy is surrendered within 12 months of the issue date) the policyholder will then receive an amount equal to the sum of 50% of the gross premium paid and accrued to date of surrender and 100% of all unaccrued gross premium paid to date of surrender."

This provision has generated considerable controversy. Unanimous industry opposition was expressed by the participants during the August 8 open hearing. In lieu of this provision, the industry submitted an alternative proposal which is discussed below. As a consequence, the Chairman appointed this task force to prepare for consideration of the subcommittee the following:

1. the objectives underlying the adoption of this provision,
2. a review of the pros and cons with respect to each objective, and
3. consideration of the industry proposal (or some modification thereof) in lieu of or in addition to the premium return provision.

This memorandum is in response to that direction with items (1) and (2) being treated together.

OBJECTIVES AND EVALUATION

1. Additional Measure of the Consumer Protection

The imposition of the requirement that a specified portion of a premium be refunded in the event of a first year lapsation provides an additional measure of consumer protection not currently available.

Pro Argument

- (1) Cash values in the initial years are either nonexistent or relatively small due to the high incidence of expense in the policy's first year. The requirement of a substantial return of premium if the policyholder surrenders during the first year provides a significant additional benefit. The loss of most<sup>1</sup> of the first year premium upon surrender, especially if the agent missold the policyholder, is felt by some to be an excessive forfeiture. This becomes a matter of even greater concern when viewed in the context of the high first year lapse rate experienced by many companies.
- (2) First year lapse rates can be quite high (e.g. 50% on monthly premium business issued at young adult ages). It can be argued that some measure of responsibility for high first year lapse rates should be assumed by the insurer and its agents, especially to the extent that the lapse experience represents missold policies. A refund of some proportion of the premium not required to cover insurance protection prior to the lapse serves as a tangible acknowledgment of such responsibility.

1. The policyholder benefited from that portion of the premium needed to provide death benefit protection up until the time of surrender.

Con Argument

The appropriateness of mandating this additional benefit is not free from dispute. (1) Such a provision brings into question the basic structure of the standard nonforfeiture laws. If these laws are defective, the problem should be attacked directly rather than circuitously through the model variable life insurance regulation. (2) Unless the addition of the return of premium benefit results in no increase premium nor reduction in dividends and/or cash values (see *infra*), a substantial portion of the cost of the return of premium benefit will be borne by those policyholders who continue their coverage. This in turn raises such subsidiary questions as (a) the value of the benefit versus the increased cost, (b) a determination of whether the value is great enough to warrant mandating the benefit by law, and (c) the funding of the benefit by nonusers thereof. (For a discussion of the increased cost implications see the Hunt-Conley Memorandum, August 8, 1973 to the (C4) Subcommittee.) (3) It might be argued that the sharp difference of treatment of policyholder terminating in the 12th and 13th months is inequitable.

2. Limitation on Sales Load

The SEC ruling exempted separate accounts underlying variable life insurance policies from the Investment Company Act of 1940 on the basis that state regulation would be developed, which is "substantially equivalent in material respects to those relevant sections" of the 1940 Act. A variable life insurance policy is said to be a periodic payment plan. The 1940 Act contains requirements and prohibitions concerning sales loads. These provisions are grouped in Sec. 27 which includes the following.

- (1) The maximum sales load is 9% of total payments. (Sec. 27 (a)(1)).
- (2) No more than 50% of any of the payments in the first year may be deducted for the sales load. (Sec. 27 (a)(2)).
- (3) Notwithstanding 1. and 2., the purchaser may surrender his certificate at any time within the first 18 months and receive (1) the value of his account and (2) the amount of sales load which is in excess of 15% of the gross payments made. (Sec. 27(d)) Written notice of these refund rights is required in certain instances. (Sec. 27(e)).
- (4) The purchaser has the right to withdraw (and notice thereof) within 45 days and receive a refund of the value of his investment and all charges (Sec. 25(f)).

These provisions were designed to assure (a) that a purchaser will immediately have at least some of his gross payments invested for him and (b) that a purchaser who terminates at an early date will not be unduly penalized by disproportionate sales charges in early years.

The proposed return of premium benefit is akin to Sec. 27(d) which can be described as an 18 month, sales load refund provision.<sup>2</sup> In contrast, the percentage amount of the premium refund depends upon the time of surrender, grading from 100% for an immediate surrender to 50% for a surrender at the end of the premium paid-to-date (end of first year in the event an annual premium is paid).

Pro Argument

1. The refund of premium provision responds to the SEC mandate concerning sales loads as a condition for the continuance of the exemption.
2. This provision could lead to a decreased front end load.

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2. Upon termination between 45 days and 18 months, the management company may keep 15% of the gross payments made. This would mean, assuming a 50% load in the first year, that only 70% of the load would be returned if surrender took place during the first year. The 2nd year load would be less and, correspondingly, the percentage would grade off from 70% end 1st year to 58% end 18 months (assuming 5% second year load).

Con Argument

1. If the purpose of this provision is to meet the SEC criteria, certain questions are raised. (a) To what extent are the SEC requirements pertaining to sales load "relevant" to the concept of loading as used in life insurance? An argument has been made that such requirements are irrelevant. If this is true (a position not accepted by the staff of the SEC), responding in this manner is unnecessary. (b) If the 1940 Act requirements are deemed "relevant," is the refund of premium provision "substantially equivalent" to Sec. 27(d) specifically and/or the other load limitations generally. Although the answer may be yes as to Sec. 27 (d), the same is less likely to be true as the other limitations.<sup>3</sup> Thus, it can be argued that in the context of the SEC ruling the objective of limiting the sales load through the return of premium provision is either unnecessary or is insufficient.
  2. The view that the refund of premium benefit will drive the sales load down rests upon the assumption that price competition in life insurance will preclude the increase in premium rate to cover the cost of the benefit. Will the dominant insurer choose to cover the cost of the benefit by reducing commissions or by spreading the first year commission over two or more years so that the present value of commission is the same as or less? Will insurer charge back commissions on terminations?<sup>4</sup> If the answers are yes, high first year commission insurers may be compelled to reduce commissions to be competitive. The contrary view holds that imposing controls on only one element of the price structure will do little to benefit the policyholder from a cost standpoint. For example, restricting commission levels, albeit indirectly by imposing an additional benefit, would not preclude the insurer from changing other elements in the premium (e.g. mortality, expense or interest assumptions) to recoup the cost of the additional benefit. In the absence of limitation on the total price charged (as distinguished from controls over separate elements of the price), unless one assumes effective competition, the addition of the refund of premium requirement could result in an increased premium borne primarily by the continuing rather than lapsing policyholder. Furthermore, to the extent the gross premium increases, the dollar amount of commission payable will also increase which is contrary to the stated objective.
  3. To the extent commission levels are forced down vis-a-vis those for conventional life insurance, VLI will be less readily available to the public.
3. Increase Persistency
- The reduction of early lapsation, especially in the first year when lapses are high, would benefit both companies and policyholders.

Pro Argument

The requirement for a refund of premium (in effect high early cash values) should generate a disciplinary effect on insurance company operations. Insurers with relatively high cash values in the early years are particularly sensitive to early lapses. The lapse experience of insurers with high early cash values has been very favorable, although this may have been the result of the particular market to which such policies have been offered, as of spread commission schedules. The imposition of the refund of premium benefit may induce stronger company internal controls to lessen agent sales to policyholders to whom such sales should not have been made in the first place. A greater emphasis on determining suitability of the variable life policy for the particular policyholder should result in fewer lapses and lower cost for all policyholders.

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3. According to an SEC staff report, although sales compensation may not materially exceed the 9% maximum limit under the 1940 Act, sales compensation in variable life insurance, as proposed in current registrations, when combined with other sales related expenses may exceed the permissible load level. The front end load provision also would not be met. However, the 45 day free look provision may be reconcilable with the current time lag between the date of application for an insurance policy and the date it is finally accepted by the company.
  4. Even if commissions are charged back, the insurer will not recoup its underwriting costs.

Con Arguments

1. Mandating a refund of premium benefit renders the first year lapse more palatable to the policyholder. The availability of the refund might encourage or better enable agents to replace and twist existing policies, although it is argued that twisting ought to be dealt with separately.
2. In the event of a market decline during the first year, the policyholder might be tempted to take his refund and not be burdened with the result of the poor initial investment performance. An answer suggested to meet this latter problem would be to adjust the amount of required refund downward to reflect adverse investment results.
3. Will the saving attributable to improved lapse rates, if any, be sufficient to outweigh the increased cost due to the return of premium benefit?

In short, the case for mandating a premium refund rests on the objectives of (1) providing a valuable additional measure of consumer protection, (2) limiting the sales expense and (3) reducing lapses. The question as to whether such requirement will, in fact, achieve one or more of these objectives raises conflicting viewpoints. The purpose of this memorandum is not to pass on the merits of this question but rather to summarize some of the relevant factors so as to assist the subcommittee in its deliberation.

THE INDUSTRY PROPOSAL

In lieu of the 50% refund provision in the first year, the industry proposes a three part response to the "substantially equivalent" language of the 1940 Act.

1. Ten Day Free Look - The policyholder would have ten days to examine his policy upon delivery thereof; if he wished to return it, he could receive a refund of the full premium paid.

Comment: This is analogous to the 45 day provision in Section 25(f) of the 1940 Act. If a binding receipt were issued at the time the application was taken, then the 10 day period would be increased to 10 days plus the time the insurer took to deliver the policy. (One company which features the 10 day free look in life insurance products says that it takes from a week, in the case of a clean app, to a month and a half, where attending physician statements must be obtained, to deliver the policy.) Further, the life insurance company would provide free insurance during this whole period, a risk not assumed by a mutual fund. It could be argued that the provision of a 10 day plus free look and free life insurance during such period is "substantially equivalent" protection when compared with Section 25(f).

2. Extended Insurance Proposal - The policyholder who lapsed in the first year, but not within the 10 day plus free look period, would receive "free" insurance for as many months (not to exceed three) as he had paid premiums.

Comment: This is proposed in response, presumably, to Section 27(e) of the 1940 Act (18 months refund provision). That is, Section 27(e) suggests that there is a secondary period of time during which the insurer (in this case) must assume a portion of the responsibility for early termination. The industry would provide something of value, in lieu of a cash refund, during this secondary period which the industry suggests be 12 months rather than 18 months.

The advantage of this approach would be administrative simplicity and a cost significantly less than any refund provision - less because (a) there is a three months limit, and (b) the risk of death is less than the rate charged therefore (see below).

On the assumption that premiums would have to be increased to cover any refund provision, this approach would keep premiums lower.

The disadvantages are that (a) anyone lapsing probably feels little need for insurance and might not consider the extended insurance to be something of value, and (b) the insurer is giving away some of its raw material, so to speak, which costs it almost nothing. For example:

Age	<u>Annual Premium, Lapse during first year</u>			
	Approx. Premium	Proposed Refund, 50%/100%	Value of three mos ETI	
			1958 CSO 3½% CET	1955-1960 Select Mortality
25	\$150.	\$150 to \$75	\$ 6.47	\$1.49
40	240.	\$240 to \$120	11.09	3.20
55	400.	\$400 to \$200	40.82	9.74

<u>Quarterly Premium, Lapse end 3 mos.</u>				
25	39.	19.50	6.47	1.49
40	62.	31.20	11.09	3.20
55	104.	52.00	40.82	9.74

<u>Monthly Premium, Lapse end 1 mo.</u>				
25	13.	6.50	2.16	.50
40	21.	10.50	3.70	1.07
55	35.	17.50	13.61	3.25

Notes: (1) Premiums are for \$10,000, Life form.

(2) 1955-1960 Select Mortality rates obtained from Select Basic Table for males (interpolated), TSA 1962 Reports, P. 46. Such mortality rates reflect the underwriting process whereas CET rates not only do not reflect underwriting but are loaded for contingencies and anti-selection. No anti-selection would be present on first year lapse as only healthy lives would drop coverage. Perhaps there would be "pro" -- selection.

3. Limitation on excessive sales, management, and administrative charges

In response, presumably, to Sections 27(a) (1) (9% aggregate sales load limit) and 27(a) (2) (50% 1st year sales load limit), the industry proposes to reduce the permissible acquisition expense allowance in the standard nonforfeiture law (the effect of which would be to raise minimum early cash values substantially) if premiums exceeded those found in Rule 3c-4 of the 1940 Act.

Comment: To the extent the maximum premiums were realistic, the device of reducing the expense allowance should be effective in keeping premiums below the limit. The advantage of such an approach would be to place a ceiling on all elements of the rates for life insurance. If effective, such ceilings would be responsive to the 1940 Act limitations.

Below is a table showing how the maximums appear in relation to actual gross premiums contained in the seven disclosure statements filed with the SEC:

Age	Maximum Premium	<u>Per \$1,000 for \$10,000 Whole Life Policies</u>						
		<u>Actual Gross Premiums from SEC Registrations</u>						
		Aetna	Federal	First Variable	IDS	LN	Trav.	VALIC
25	\$19.56	\$15.53	\$14.61	not	\$15.02	\$15.80	\$16.60	\$16.23
40	\$30.82	\$25.69	\$24.53	given	\$24.33	\$25.36	\$27.80	\$25.50

From the table, it might be concluded that the level of maximum premiums might be so much higher than prevailing gross premium levels as to constitute no "substantially equivalent" protection.

It would, of course, be possible to promulgate lower maximum premiums. In any event, if the maximum premium approach were used, it should result in premiums which vary by single ages. Age bracketing produces too large variations from one bracket to the next.

## ATTACHMENT 4

Statement by Industry Advisory  
Committee on Art. VI, Sec. 21

August 6, 1973

The SEC decision of January 30 of this year exempting variable life insurance from the Investment Company Act of 1940 also urged the states to promulgate regulations that will provide material protections to purchasers substantially equivalent to the relevant protections that would be available under the Investment Company Act. One of the more difficult areas facing both the state insurance regulators and the life insurance industry is to provide protection against what the SEC referred to as "excessive management, administrative and sales charges."

Variable life insurance, like fixed life insurance, involves a pooling of funds in order that the beneficiaries of persons who die in the early policy years will be able to receive amounts considerably in excess of their proportionate share of the funds. This is a quite different situation from the situation that exists under mutual funds or during the deferred period of a variable annuity, where each purchaser pays a specific sales and administrative load and the balance is invested for his account and his account alone.

Thus, variable life insurance does not lend itself in the same way as mutual funds and variable annuities to a direct regulation of management, administrative and sales charges. Consequently, a response to this problem is a very difficult one and for this reason the life insurance industry has not until now been able to come up with a satisfactory proposal in this area.

In Article VI, Section 21, of the proposed NAIC Model Variable Life Insurance Regulation there is a requirement that during the first policy year the policy may be surrendered and the policyholder would receive an amount equal to 50% of the accrued premiums to date of surrender and 100% of all unaccrued premiums for the balance of the period for which premiums were paid. While we believe we understand the reasons the NAIC Variable Annuities and Other Contracts (C4) Subcommittee is setting forth this proposal, we sincerely believe that such a requirement would make the successful marketing of variable life insurance extremely difficult if not impossible. We believe such a proposal would lead to "twisting" and would have the effect of raising the cost to persisting policyholders, thereby adding to the problem of excessive management, administrative and sales charges. In Appendix A, attached, we discuss in greater detail the serious problems we see with Article VI, Section 21.

We believe that the (C4) Subcommittee in setting forth this proposed section may have had concern in three areas, for each of which we have a proposal.

First, there may have been a feeling that a person buying a variable life insurance policy should have an opportunity to reconsider his decision for a reasonable period after he has the policy in his possession. Consequently, we are proposing a so-called "10-day free look" whereby the policyholder may return the policy to the company within ten days after its delivery and receive all his premiums back. Specifically, we propose adding a new section to Article VI to read as follows: "The policy may, at any time within 10 days after its receipt by the policyholder, be returned by delivering it or mailing it to the company or to the agent through whom it was purchased. Immediately upon delivery or mailing, the policy will be deemed void ab initio, and any premium paid on it will be refunded."

Second, there may have been a feeling that if a policyholder, after paying premiums for a short period, finds himself financially unable or unwilling to continue his insurance, his policy should not simply lapse without value. We do not believe that he should be permitted to get his money back under such circumstances, since he failed to take advantage of the 10-day free look provision. We do feel, however, that such a policyholder should receive some additional insurance for the premiums he has already paid. Consequently, we are suggesting that, depending on how long premiums were paid, up to 90 days additional fixed insurance be granted as set forth in a proposed new section in Article VI as follows:

In event of default in payment of a premium due no later than the end of the first policy year, if the death of the insured occurs within a period after the due date of such premium equal to the period for which premiums have been paid, but no more than three months, there shall be paid a death benefit equal to the excess, if any, of the death benefit in effect immediately prior to default over any cash value or other nonforfeiture benefits otherwise due or paid.

Third, there undoubtedly was some feeling that protection against excessive management, administrative and sales charges must be provided. As indicated earlier, we believe Article VI, Section 21, would lead to higher charges for persisting policyholders and therefore is counter-productive to this intent. We fully concede that it would have been desirable for the life insurance industry to have come up with a proposal in this area at an earlier date. However, as you can probably realize, this has been an extremely difficult area and it is only now that we are prepared to make a proposal to handle the problems of excessive management, administrative and sales charges.

Specifically, in this third area we are proposing to adjust the maximum premiums implied by the minimum multiples set forth in SEC Rule 3c-4 and also in Article VI, Section 4, of the NAIC proposed Model Variable Life Insurance Regulation to make such maximum premiums "plan specific." This adjustment would be made on the basis of 1958 CSO mortality and 3½% interest using net actuarial functions to insure consistency.

To avoid direct rate regulation which we believe is not in the interest of either state regulators or the life insurance industry we have set forth our proposal as an adjustment to the minimum cash values required under variable life insurance policies, an approach which is self-enforcing and which is in the traditional form of life insurance regulation. Incidentally, we note that the standard nonforfeiture provisions that had been set forth in the present Model Variable Contract Regulation in Article VI, Section 4(c), have been omitted from the proposed Model Variable Life Insurance Regulation and we assume that this was not intended. Consequently, we are recommending that the second paragraph of Article VI, Section 4(c), of the present Model Variable Contract Regulation be carried over into Article VI, Section 10(c), of the proposed new Regulation. To implement our third proposal, we propose adding to the standard nonforfeiture provisions a provision that would increase minimum cash values very substantially in the event a company's life insurance premium for standard lives exceeds the actuarial equivalent of the 3c-4 premiums, plus an extra dollar per thousand for the smaller policies with a face amount under ten thousand dollars. This would be accomplished by reducing the initial expense allowance inherent in the Standard Nonforfeiture Law by the full actuarial present value as of the date of issue by the amount by which any premium exceeds that permitted by the age-specific multiples. At age 25, for example, on the whole life plan the initial expense allowance provided under the Standard Nonforfeiture Law is \$28 per \$1,000 of coverage. If a company charged only \$1 more per \$1,000 than the actuarial equivalent 3c-4 premium, this initial expense allowance would be reduced by the full present value of the extra dollar, which equals \$25, and thus the initial expense allowance would be reduced to only \$3. This we believe would have an extremely inhibiting effect on excessive premium rates while avoiding the necessity of reviewing individual rates that would come with direct rate regulation. The text of our proposed modification is set forth in Appendix B, attached.

It might be well at this point to review the background under which the 3c-4 multiples were developed. The intent of the life insurance industry in proposing these multiples to the SEC was to exclude from the Rule contracts with a substantial investment element. Thus, the multiples were based on premiums for the life paid up at age 65 plan for issue ages up to age 50, the 15-pay life plan for issue ages 51 to 70, and the whole life plan for issue ages 71 and over. It was our belief in proposing these multiples that such plans did not contain too substantial an investment element and that questions could be raised as to whether plans issued on a higher premium basis were predominantly intended for investment purposes. In order to keep variable life insurance under Rule 3c-4 on a basis comparable to current fixed-dollar life insurance, these multiples were based upon the highest participating premiums for fixed dollar life insurance policies of \$10,000 face amount issued to male lives among the 25 largest mutual companies. At that time and still today, it was not known whether premiums for variable participating policies would be higher than those for fixed, although it was known that for variable nonparticipating policies, premiums would have to be higher than for fixed nonparticipating policies. Such higher nonparticipating premiums would be needed because the interest element usually used to reduce the premium under fixed nonparticipating policies would instead be used to provide higher benefits under variable nonparticipating policies.

Thus, we are not sure even today the extent to which the gross premiums implied under the multiples in Rule 3c-4 will be limiting to companies for the plans on which the multiples are based. However, we do feel that on balance these multiples will probably be sufficient to guard against excessive management, administrative and sales charges for the plans upon which they were based.

The actuarial adjustment of these multiples, to make them plan specific, would produce premiums for other plans of insurance that are consistent with those in SEC Rule 3c-4. Perhaps in time it will be found that these premiums are too high or too low, as experience with variable life insurance emerges. At the present, we believe these multiples to be fair because of the additional expense we believe will be associated with variable life insurance both because of the additional administrative complexities and the cost of complying with the various federal and state requirements that are not applicable to fixed life insurance. We do suggest, however, that if this proposal is adopted, there be a provision that it be reviewed at the end of 1977 concurrently with the provision for the reserve and minimum death benefit guarantees set forth in Article VI, Section 19.

## APPENDIX A

## Comments on Proposed Art. VI, Sec. 21

This proposed regulation would require that on lapse or surrender of a policy during the first policy year, there would be refunded to the policyholder 50 percent of the gross premiums paid and accrued to the date of lapse or surrender, and 100 percent of all unaccrued gross premiums paid if the policy is surrendered prior to the premium paid to date.

1. If this requirement is imposed, companies may be forced, as a practical matter, to prohibit the operation of a life insurance policy on a variable basis until the first policy year has been completed and premiums have been paid for at least part of the second policy year. This result would arise from the companies being unable to allocate any part of the first year's premium to the separate account, since, in the event of a down-turn in the market during the first policy year, the company would be subject to having to pay a surrender value on the basis that no market losses would be charged to the withdrawing policyholder.

2. A 50 percent refund of premium to the lapsing policyholder is certain to be conducive to a higher first year lapse rate. This would work counter to the efforts being made on the part of regulators and the industry to encourage persistency of business.

3. The requirement would constitute an open invitation to "twisting." The purchaser's ability to receive a refund at the end of the first year of 50 percent of the first year's premium would encourage agents to urge replacement of the existing policy by a new policy. Assume, for example, that the annual premium for an existing policy is \$250.00, and a new policy issued at an age one year later is \$260.00. The insured could easily be persuaded to replace the existing policy on the ground that instead of paying \$250.00 for the ensuing year's coverage he could have it for \$135.00 (i.e., \$260.00 minus half of the \$250.00 premium previously paid).

4. Because of relatively heavy turnover of agents, the proposed regulation would force life insurance companies to choose between the alternatives of losing commissions where the policy has lapsed and the agent has terminated, or of holding up the payment of first year's commissions until the completion of the first policy year. The second alternative would seriously impair the marketing of variable life insurance.

5. The proposed regulation could act as an inducement to the surrender or lapse of insurance during or at the end of the first year because of a decline in the market. The policyholder would be influenced to start fresh with a new policy, not burdened with the results of the poor investment return in the separate account since purchase of the policy. This would be particularly true if there is a down-turn in the market shortly after issue and the policyholder could demand virtually all his premium back. The regulation would thus encourage "playing the market" and would be counterproductive to the design and sale of variable life insurance as insurance and not as an investment contract.

6. Companies would have to set up reserves for this additional benefit with the result that the sale of variable life insurance would create an even heavier drain on surplus than is the case for fixed-dollar life insurance. This would severely hamper the ability of even the largest companies to write variable life insurance and could preclude smaller companies from being able to sell variable life insurance at all.

7. Finally, this proposed regulation runs counter to the intent of the existing model law and model regulation, that cash values and other nonforfeiture requirements under variable life be reasonably related to the nonforfeiture laws applicable to fixed life insurance, with appropriate recognition of the variable nature of the benefits. There is nothing in the nature of variable life insurance that suggests for variable life this radical departure from existing nonforfeiture statutes applicable to fixed insurance.

## APPENDIX B

## Proposed Modification of Art. VI, Sec. 10(c)

Insert before last paragraph of proposed Article VI, Section 10(c), the second paragraph of Article VI, Section 4(c), of the present Model Variable Contract Regulation, with the following added at the end of the second sentence: " , increased for certain variable life insurance policies as in (d) below."

Add a new Section 10(d) as follows:

If the gross premiums for any individual variable life insurance policy delivered or issued for delivery in this state produce an excess of (i) over (ii) as defined in (e) below, the present value as of the date of issue of the adjusted premiums used in determining the minimum cash values required by Section \_\_\_ of the Insurance Laws of this State (Standard Nonforfeiture Law) shall be decreased by such excess by decreasing each adjusted premium by a uniform percentage.

Add a new Section 10(c) as follows:

The excess of (i) over (ii) referred to in (d) above shall be determined as of the date of issue on the basis of the mortality table and maximum rate of interest permitted by Section \_\_\_ of the Insurance Laws of this State (Standard Nonforfeiture Law) and;

(i) is the present value of the gross premiums for the policy, decreased by one dollar per thousand of equivalent uniform amount for policies with an equivalent uniform amount of less than ten thousand, payable on an annual basis (exclusive of those portions of the gross premiums allocable to any supplementary insurance benefits) by a person who meets standard underwriting requirements and;

(ii) is the present value of the maximum premium rates per thousand of insurance under Rule 3c-4 of the Investment Company Act of 1940, payable at the beginning of each policy year to attained age 65 of the insured for issue ages below age 51, for fifteen years for issue ages 51 to 70 and for life for issue ages above age 70, multiplied by (iii), where

(iii) is the ratio of (a) the present value of the benefits under the policy, to (b) the present value of an insurance of one thousand for the whole of life.

The maximum premium rates under Rule 3c-4 of the Investment Company Act of 1940 are as follows:

<u>Issue Ages</u>	<u>Premium Rate</u>	<u>Issue Ages</u>	<u>Premium Rate</u>	<u>Issue Ages</u>	<u>Premium Rate</u>
0 to 5	\$12.50	26 to 30	\$25.00	51 to 55	\$ 76.92
6 to 10	14.08	31 to 35	30.30	56 to 60	90.91
11 to 15	15.87	36 to 40	37.04	61 to 65	111.11
16 to 20	18.18	41 to 45	47.62	66 to 70	125.00
21 to 25	21.28	46 to 50	66.67	71 & over	142.86

For purposes of this section any portion of the premium set aside to support a guarantee that any surrender value shall not be less than a specified amount or for any other benefit that the commissioner shall deem to be excludable, shall not be included.

Renumber NAIC proposed Section 10(d) as 10(f) and Section 10(e) as 10(g).

## ATTACHMENT 5

[Unidentified Letter, no date]

Since the SEC, in granting the exemption under Rule 3c-4, stated that it expected the states to adopt regulations with respect to variable life insurance that would among other things provide protection against excessive management, administrative and sales charges, I do not see how the NAIC could have avoided addressing itself to this question in writing the Model Regulation. They have done so in a manner consistent with industry recommendations and consistent with earlier representations made by the industry to the SEC in memoranda and at the VLI hearings in Washington.

On February 1, 1971, the ALC and ALIA sent a letter to Mr. Solomon Freedman, then Director of the Division of Corporate Relations of the SEC, responding to a set of questions raised by Mr. Freedman. Question No. 5 read as follows: "What portion of the premium for a variable benefit policy will be allocated to sales and administrative expenses? Will the sales and other charges be deducted proportionately from each year's payment or will there be front-end loading?" The response to this question stressed the indivisibility of the life insurance premium, as contrasted with the ability to split the periodic payment for mutual funds or for a variable annuity contract into the portion used for expenses and the portion credited in the form of shares or units. We pointed out that under a life insurance policy, whether fixed or variable, all premium payments and investment earnings are used in the aggregate to cover expenses and benefits related to the class of policies. Here is a quotation from our letter of February 1, 1971 to the SEC:

Therefore, it can be seen that under a life insurance policy, whether fixed or variable, there is no simple relationship between the amount of premium paid in any year and the cost to the insurance company of claims and expenses in that year. The policyholder pays level premiums and receives full immediate protection regardless of the incidence of disbursements by the company for benefits and for sales and administrative expenses. The cost of providing coverage against the risk of death, which rises each year as the policyholder grows older, and the cost of providing for the varying, but typically decreasing, expenses are blended in the determination of the level premium.

If a regulation is to be written that purports to deal with protection against excessive charges and at the same time is to recognize the indivisibility of the premium, I do not see how the regulation can avoid dealing with the level of premium charges. This is the conclusion that was reached by the Actuarial Committee of the ALIA, and their conclusions are reflected in the Model Regulation which requires that a company that chooses to charge premiums in excess of certain specified premiums (related to Rule 3c-4), would have to provide cash values in excess of those otherwise required under the law.

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