

1977 (Handwritten)

BY THE COMPTROLLER GENERAL

Report To The Congress

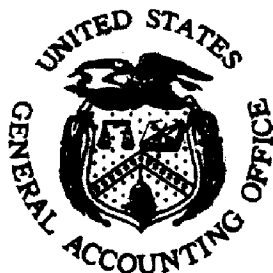
OF THE UNITED STATES

Billions Of Dollars Are Involved In Taxation Of The Life Insurance Industry -- Some Corrections In The Law Are Needed

The income of U.S. life insurance companies is taxed under a special subchapter of the Internal Revenue Code that was enacted in 1959 and tailored to the life insurance industry as it then existed. In the last 20 years major changes occurred in the industry, not only its structure but also in the products it offers. The economic environment in which the companies operate has also changed. Changes in the industry and economic conditions have made certain provisions of the Act obsolete and in need of revision.

In this report GAO examines the life insurance industry's tax situation. The industry has changed since 1959, and the tax law has not. Company income taxes are relatively small. Some of the tax law's provisions are presented. The data from 10 years of company returns are analyzed, and the effects and burdens of some alternatives to the current rules are discussed. The report concludes with three specific recommendations for changes in the law and identifies six additional issues for study by the Congress.

SUMMARY



PAD-81-1A
SEPTEMBER 17, 1981

116608
018887

NOTE TO RECIPIENTS

This summary includes the cover, digest, and table of contents of a GAO report. You may obtain a copy of the complete report by following the instructions below.

For sale by:

Superintendent of Documents
U.S. Government Printing Office
Washington, D.C. 20402

Telephone (202) 783-3238

Members of Congress; heads of Federal, State,
and local government agencies; members of the press;
and libraries can obtain GAO documents from:

U.S. General Accounting Office
Document Handling and Information
Services Facility
P.O. Box 6015
Gaithersburg, Md. 20760

Telephone (202) 275-6241

D I G E S T

The Life Insurance Company Income Tax Act of 1959 under which life insurance companies are taxed needs updating to reflect substantial changes in the industry and economy. This law was enacted in 1959, retroactive to 1958, and culminated 50 years of trial and error with alternative methods of taxation. The 1959 Act contained a number of controversial provisions, and many features of the law were written to tax the industry as it was structured in 1959 (see chapter 3):

- The industry was dominated by mutual companies (cooperative ventures) that represented only about 11 percent of the total number of companies in business but held 75 percent of industry assets and sold 63 percent of U.S. life insurance.
- Whole life insurance (a life insurance policy for the whole of life payable at death), generating large reserves and investment income, was the predominant product sold.
- The rate of inflation in the U.S. was low (0.8 percent annually compared to recent rates of 10 percent and more), and earnings rates on investments were much lower than current rates.

The Congress considered the structure of the industry in 1959 and provided special features in the Act that recognized (see chapter 3):

- the competitive balance between mutual and stock companies (mutual companies, unlike stock companies, do not have stockholders);
- the importance of fostering the survival of small life insurance companies that were by far the largest in number of companies doing business; and
- the long-term nature of the life insurance business (life insurance contracts span many years).

In the past 20 years the life insurance industry has changed considerably. These changes include (see chapter 2):

- the balance in the industry has shifted, and mutual companies no longer dominate, though they are still a major factor in the industry;
- the lines of business life companies write have shifted from whole life to term and group insurance (term life coverage is for a specified number of years and expires without cash value if the insured survives, and group insurance provides coverage to many insureds under a single policy);
- there has been a dramatic increase in the pension line of business as well as tax-deferred annuities (annuities on which income tax is postponed until a payment is made), and growth in these lines of business has yet to peak; and
- policy loan provisions have induced unanticipated demands on life company assets in recent years.

OBJECTIVES, SCOPE, AND METHODOLOGY

Because of the changes specified above, which may have rendered certain provisions of the Act inappropriate and in need of revision, GAO conducted this examination of the 1959 Act. This report provides the Congress with recommendations for changing the 1959 Act.

GAO's examination of the 1959 Act began with a study of the industry's structure in 1959 and how it had changed in 20 years (chapter 2). The nature of income of a life insurance company was examined (chapter 3). GAO studied certain specific provisions of the law (chapter 4). The subjects of reinsurance (an agreement between two or more insurance companies by which the risk of loss is shared) and the cooperative nature of mutual companies were also analyzed (chapter 5).

GAO obtained tax data on 42 of the largest life insurance companies for the 5-year period 1974-78 that provided a foundation for our analyses of the taxation of life insurance companies (chapter 6). In 1978 these 42 companies held approximately 72 percent of the industry's as-

sets and wrote about 62 percent of life insurance in force. GAO also analyzed tax data on 1,254 life companies with assets of less than \$25 million.

FINDINGS, CONCLUSIONS, AND RECOMMENDATIONS

GAO concludes that, primarily due to changes in the industry structure, its product offerings, and the effects of inflation, there are three sections in the Act that the Congress should consider changing. These sections deal with:

- the method by which the reserve deduction, that portion of current income necessary to meet future obligations, is calculated;
- the definition of taxable income; and
- the method for approximating those reserves that are computed on a preliminary term basis. (Under a preliminary term basis, a company adds less to its reserves during the early years of a policy and then makes up for the deficiency in later years. The company may elect to compute these reserves either exactly or approximately.)

Six additional issues merit the Congress' consideration. Because of time constraints and limited availability of data, GAO is unable to make specific recommendations for changes in these areas; however, because of the extensive litigation arising from some of these issues, GAO is certain that the Congress will wish to study them further in the future. The three specific changes will be presented first, followed by a brief description of the six additional problem areas.

RESERVE DEDUCTION

The method by which a life insurance company calculates its reserve deduction is crucial in determining its tax liability. This results because the higher the reserve deduction the lower the tax liability. From extensive analyses of the subject, GAO found (chapters 4 and 6):

- that due to spiraling inflation, changes in product mix, and increasing earnings rates, the current method of calculating the reserve

deduction is no longer appropriate. If the gap between the current earnings rate and the assumed rate (used in computing reserves) continues to widen, the reserve deduction will first become larger and then smaller because of the 10 to 1 approximation. (The 10 to 1 approximation adjusts reserves downward 10 percent for every 1 percent by which the interest rate earned exceeds the rate used in computing reserves.) Many large companies are approaching the maximum reserve interest deduction available under current law. Therefore, GAO concludes:

--that the portion of the Code specifying the calculation of the reserve deduction should be revised to reflect the changes in the industry over the past 20 years and the changed economic environment in which the industry operates.

Further, GAO recommends:

--that the amount of the deduction should be evaluated in light of the following considerations:

--the assumed rate used by the companies in computing reserves;

--the inflationary environment in which the industry has operated in recent years; and

--the practice approved by the Congress in 1959 of allowing life insurance companies to deduct amounts in excess of the required interest implied in the assumed rates.

Three basic alternatives to the 10 to 1 rule are discussed in this report. The alternatives are:

--substituting the required interest based on assumed rates for the 10 to 1 approximation;

--replacing the 10 to 1 approximation with a geometric approximation, which provides a larger reserve deduction in the current economic environment; and

--substituting a 4.5 percent maximum for the average earnings rate with either the 10 to 1 approximation or the geometric approximation.

GAO recommends that the Congress consider selecting one of the above alternatives to replace the 10 to 1 approximation.

TAXABLE INCOME

The importance of the method used by life insurance companies in determining their taxable income is paramount. In this area, GAO found (chapters 4 and 6):

--that the provisions of the Act which control the determination of life insurance company taxable income are no longer appropriate. The deferral of one-half of the underwriting gains (income that a company generates from insurance operations as distinct from investment income) accruing to all companies can no longer be justified, and should be revised to reflect current realities. The stated purpose of the tax deferral was to provide a cushion, particularly to small and new companies, to meet the contingencies of catastrophic losses. However, the industry's operations over the last 20 years have proven quite predictable. Stock companies are the primary beneficiaries of this provision. Among the stock companies, many larger companies already have accumulated considerable amounts of policyholders' surplus.

Therefore, GAO concludes:

--that there should be no automatic deferral of one-half the excess of gain from operations over taxable investment income for life insurance companies; however,

GAO recommends:

--that elimination of this tax deferral should be gradual and indexed to the age of the individual companies. This deferral would be 50 percent for new companies for 15 years and then phased out for them as well as for the companies already in existence for 15 years or more by decrements of 10 percent per year over a period of the next 5 years.

RESERVE REVALUATION

The method by which life insurance companies revalue reserves is important because it can significantly reduce their tax liability. This results because in revaluing the reserves

there is a direct effect on the size of the reserve deduction. In examining this area, GAO found (chapters 4 and 6):

--that the current law provides two methods of revaluing reserves (1) exact revaluation, and (2) approximate revaluation. The latter allows for permanent policies of insurance an increase of \$21 per thousand dollars of the amount at risk. Such an allowance is excessive and not appropriate as it results in unwarranted reserve deductions.

GAO concludes:

--that the above allowance of \$21 is greater than what is actuarially needed (chapter 7). A lower allowance is more appropriate today because of changes in product offerings and reserve methods prevalent in the industry.

Therefore, on the basis of actuarial analyses, GAO recommends:

--that only \$15 per thousand dollars of the amount at risk be allowed in revaluing reserves for permanent insurance plans.

There are six additional provisions of the Act that GAO feels merit further consideration by the Congress. GAO's suggestions for the six provisions concern:

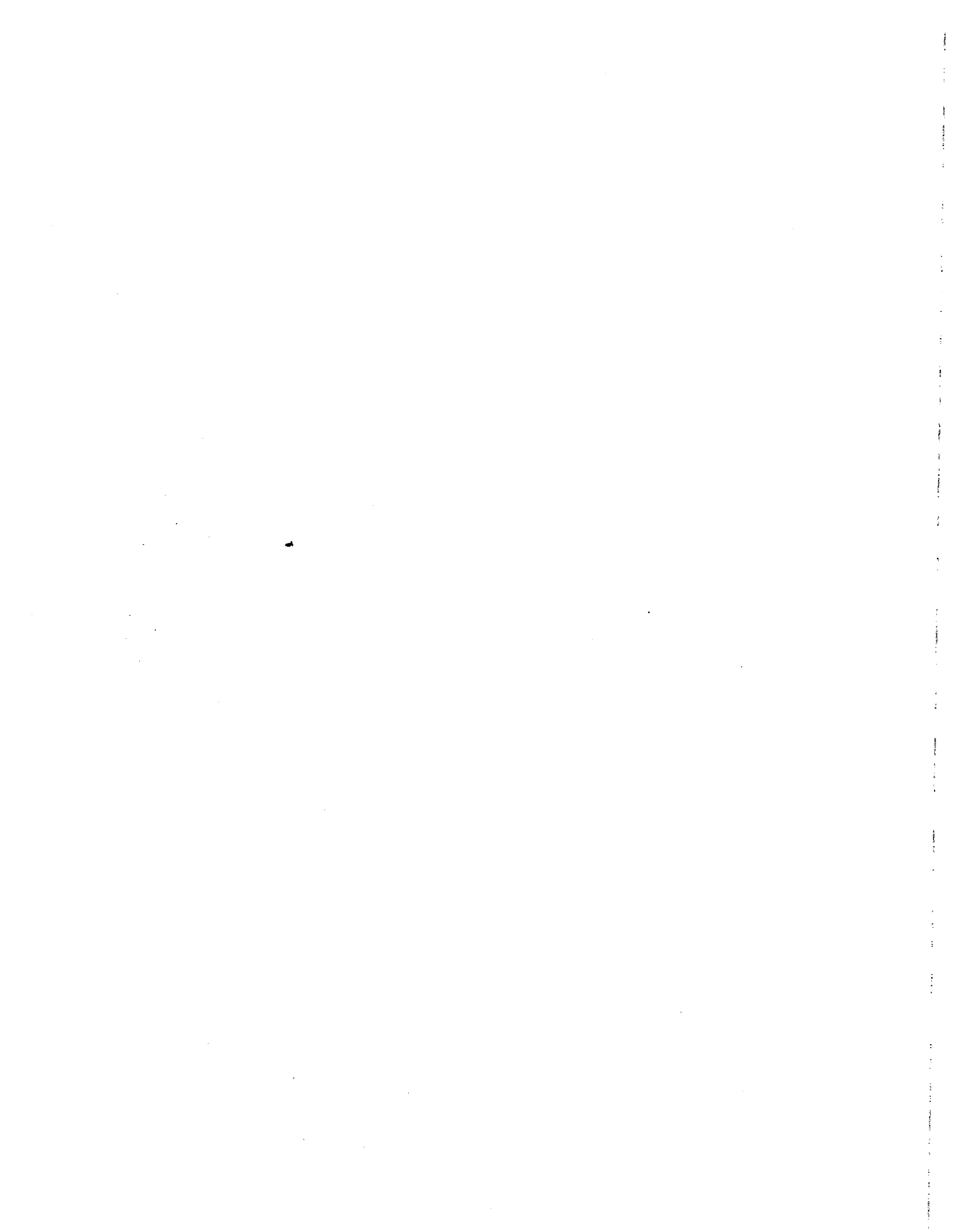
- the appropriateness of the tax treatment of investment type contracts designed to take advantage of the current high interest rates and favorable tax treatment afforded tax-deferred annuities;
- a definition of a life insurance company tightened to prohibit a company doing mostly nonlife insurance business from qualifying as a life insurance company for tax purposes;
- a clear definition of life insurance reserves;
- a modification of the portion of the Code dealing with the deduction for investment expenses to specify which expenses are deductible;
- a clearer definition of assets; and
- an examination of the use of modified coinsurance, a form of reinsurance, to avoid taxes.

AGENCY AND INDUSTRY COMMENTS

GAO received comments on a draft of this report from the Department of the Treasury, the Internal Revenue Service, and several life insurance industry trade associations. These comments were organized in the following manner: An overview covering broad issues was followed by a more in-depth discussion. Following these comments were page-by-page suggested changes. All but the page-by-page comments are reprinted. The comments dealt with a wide range of topics and changes have been made to the report in response to some of these comments.

The comments from the Department of the Treasury and IRS suggest that GAO is sponsoring overall tax relief for the industry and question whether such relief is necessary. GAO disagrees with this assertion and points out that two of the alternatives concerning the reserve deduction as well as two specific recommendations of the report would result in increased taxation. Treasury and IRS also comment on certain issues that GAO did not address in the report. Finally, Treasury questioned GAO's acceptance of the framework of the 1959 Act as a basis for its analysis.

The industry representatives disagreed with the report's recommendations and objected to GAO's conclusion that the performance of the life insurance industry has proven to be predictable. GAO's conclusion was based upon industry-wide data spanning some 50 years. These representatives also questioned the appropriateness of GAO's sample and argued that GAO's data base did not reflect the industry's overall composition. GAO disagrees with this assertion and points out that, though small in number, the sample companies would certainly reflect the revenue effects of any proposed changes in the law.



C o n t e n t s

		<u>Page</u>
GLOSSARY		iv
CHAPTER		
1	INTRODUCTION	1
	Criteria for evaluation	2
	Objectives, scope, and methodology	3
	Methodological approach	4
2	THE LIFE INSURANCE INDUSTRY IN THE AMERICAN ECONOMY: TWO DECADES AFTER THE 1959 ACT	6
	Introduction	6
	Life insurance and the individual policyholder	6
	Financial intermediation	6
	Changes in life company assets since 1952	7
	Pattern of savings with life insurance companies	7
	Shift to term insurance	8
	Changing nature of product offerings	8
	Pensions	9
	Industry composition	9
3	FEDERAL INCOME TAXATION OF LIFE INSURANCE COMPANIES	10
	Characteristics of the life insurance industry	10
	Methods of taxing life insurance company income	10
	How taxable income is established	11
	Phase I: Taxable investment income	11
	Phase II: Gain from operations	11
	Phase III: Deferred income taxes	12
	Summary	12
4	EXAMINATION OF SPECIFIC PROVISIONS OF THE 1959 ACT	14
	Policy and other contract liability requirements	14
	Reserve interest deduction	14
	Pension reserve interest deduction	15
	Phase I and Phase II interplay	16
	Preliminary term adjustment--Section 818(c)	18
	Deferred annuities	18
	Definitions under LICITA	19
5	CREDIT LIFE REINSURANCE	20
	Summary	21

6	CHANGING THE LAW: ALTERNATIVES AND EFFECTS	22
	The sample profile	22
	Sample company income and tax trends	22
	The policyholder reserve interest deduction	23
	Effect of alternative methods of computing the reserve deduction	23
	The free interest method	23
	The geometric approximation rule	24
	Substituting a 4.5 percent maximum for the earnings rate	24
	Fifty percent deferral of underwriting gains	25
	Preliminary term reserve	27
7	CONCLUSIONS AND RECOMMENDATIONS	28
	Reserve deduction	28
	Taxable income	29
	Reserve revaluation	30
	Recommendations for study of six provisions of the Act	31
	Section 805(e)--deferred annuities	31
	Section 801(a)--life insurance company defined	31
	Section 801(b)--life insurance reserves defined	31
	Section 804(c)(1)--investment expenses	32
	Section 805(b)(4)--assets	32
	Section 820--modified coinsurance	32
APPENDIX	Reserve revaluation--Section 818(c)(2)	33
TABLES		
1	Differences between net level & CRVM mean reserves per \$1,000--1958 CSO--3 1/2%--continuous functions--whole life--male	36
2	Adjustment of differences to amount at risk basis	38
3	Weights used in calculating approximate method--preliminary term adjustment	39
4	Calculation of weighted adjustment per \$1,000 amount at risk	40
5	Differences between net level & CRVM mean reserves per \$1,000--1958 CSO--3 1/2%--continuous functions--Male--Term to 65 (20 Y.T. for age 55)	42

TABLES

Page

6	Adjustment of differences in reserves to amount at risk basis--differences per \$1,000 x amount at risk per \$1 issue age	43
7	Weightings used in calculating approximate preliminary term adjustment	44
8	Calculation of weighted adjustment factors per \$1,000 amount at risk	45

GLOSSARY

- Adjusted reserves rate The lesser of current or average earnings rates (for the current and preceding four years).
- Admitted assets Assets of an insurer permitted by a State to be taken into account in determining its financial condition.
- Amount at risk Face amount of a policy less accumulated reserves.
- Annuity An annuity contract is a promise by an insurance company to pay the annuitant or a designated beneficiary a specified sum (frequently in installments) for the duration of a designated life or lives in return for a consideration which is often referred to as a premium.
- Assessable policies Policies requiring the insured pay an additional amount to meet losses greater than those anticipated.
- Assumed earnings rate The weighted average rate of earnings assumed in the calculation of reserves. This is not the rate assumed in calculating premiums.
- Current earnings rate The amount determined by dividing annual investment yield by the mean of the assets at the beginning and end of the year.
- Due and deferred premiums The balance, on December 31 of each year, of premium installments not yet due (deferred) plus premium installments due but uncollected (due).
- Endowments Endowment life insurance, as distinguished from term life or whole-life insurance, pays the face amount of the policy at the time of the insured's death or after a stated number of years, usually 20 to 30 years, whichever occurs first.
- Gain from operations All of a company's receipts (gross income) reduced by the policyholders' exclusion and certain other deductions.
- Graded premium policies On these plans the initial premium is 40-50 percent of the ultimate premium. The ultimate premium is reached by uniform additions each year for 5, 9, or 10 years.
- Graded reserves Reserves which are low initially and increase gradually until they equal net level reserves at 10-20 years.
- Industrial insurance Insurance, currently marketed as home service life, wherein premiums are primarily intended to be paid on a weekly basis, although less frequent intervals of payment may be arranged, and the payments are collected

by an agent who calls at the home or place of work of the insured.

Inside buildup That portion of life insurance company earnings which have historically been untaxed, either to the company or the individual policyholder.

Life insurance policy A contract of insurance providing for payment of a specified amount on the insured's death either to his estate or to a designated beneficiary.

Life insurance, ordinary Whole-life insurance written under a contract providing for periodic payment of premiums as long as the insured lives. Life insurance (other than group) usually in amounts of \$1,000 or more with premiums paid monthly or at longer intervals.

Life insurance, straight See Life insurance, ordinary.

Life insurance, term See Term life insurance.

Matching principle The accounting principle which dictates that expenses be matched with revenues for any given time period or accounting cycle.

Menge formula A means of adjusting the mean of life insurance reserves for the current year. The mean reserves are reduced by 10 percent for every 1 percent by which the adjusted reserve rate exceeds the weighted average rate of interest assumed in computing reserves. The life insurance reserves thus adjusted are multiplied by the adjusted reserve rate, and the product is added to the product of the mean pension plan reserves times the current earnings rate and to interest paid.

Modified coinsurance A form of indemnity reinsurance whereby the reinsured maintains the reserves on the policies reinsured and the assets held in relation thereto, and all or a portion of the investment income derived from those assets is paid to the reinsurer as part of the consideration for the reinsurance.

Mortality tables A statistical table showing the death rate at each age, usually expressed as so many per thousand.

Mutualization The conversion of a stock life insurance company into a mutual life insurance company.

Net level premium The cost of life insurance based upon pure mortality and interest from the inception of the contract until its maturity date.

Nonparticipating insurance Policies which guarantee the final cost in advance. They are called nonparticipating because they do not have dividends. Nonparticipating

policies are written by stock insurance companies, participating policies are written by mutual insurance companies. Stock companies, however, may permit their policies to participate or may issue regular participating policies.

Participating insurance Insurance on which the policyholder is entitled to share in the surplus earnings of the company through dividends which reflect the difference between the premium charged and actual experience.

Policyholders' deduction The exclusion of the policyholders' share of investment income.

Policyholders' surplus account The tax-deferred memorandum account maintained by stock companies which consists cumulatively of the deferred amounts of gain from operations and the deductions for nonparticipating policies and group life and accident and health policies.

Present value The value or discounted worth, at the time of appraisal, of an amount or amounts receivable in the future.

Reinsurance An agreement between two or more insurance companies by which the risk of loss is proportioned. Thus the risk of loss is spread and a disproportionately large loss under a single policy does not fall on one company. Acceptance by an insurer, called a reinsurer, of all or part of the risk of loss of another insurer.

Reinsurance premium The consideration paid by the ceding company to the reinsurer for the reinsurance afforded by the reinsurer.

Reserves Funds which are set aside by an insurance company for the purpose of meeting obligations as they fall due. A liability set up by an insurer for a particular purpose.

Reserve valuation The annual valuation of reserves required by the various States to reflect changes in the business on the books of the companies.

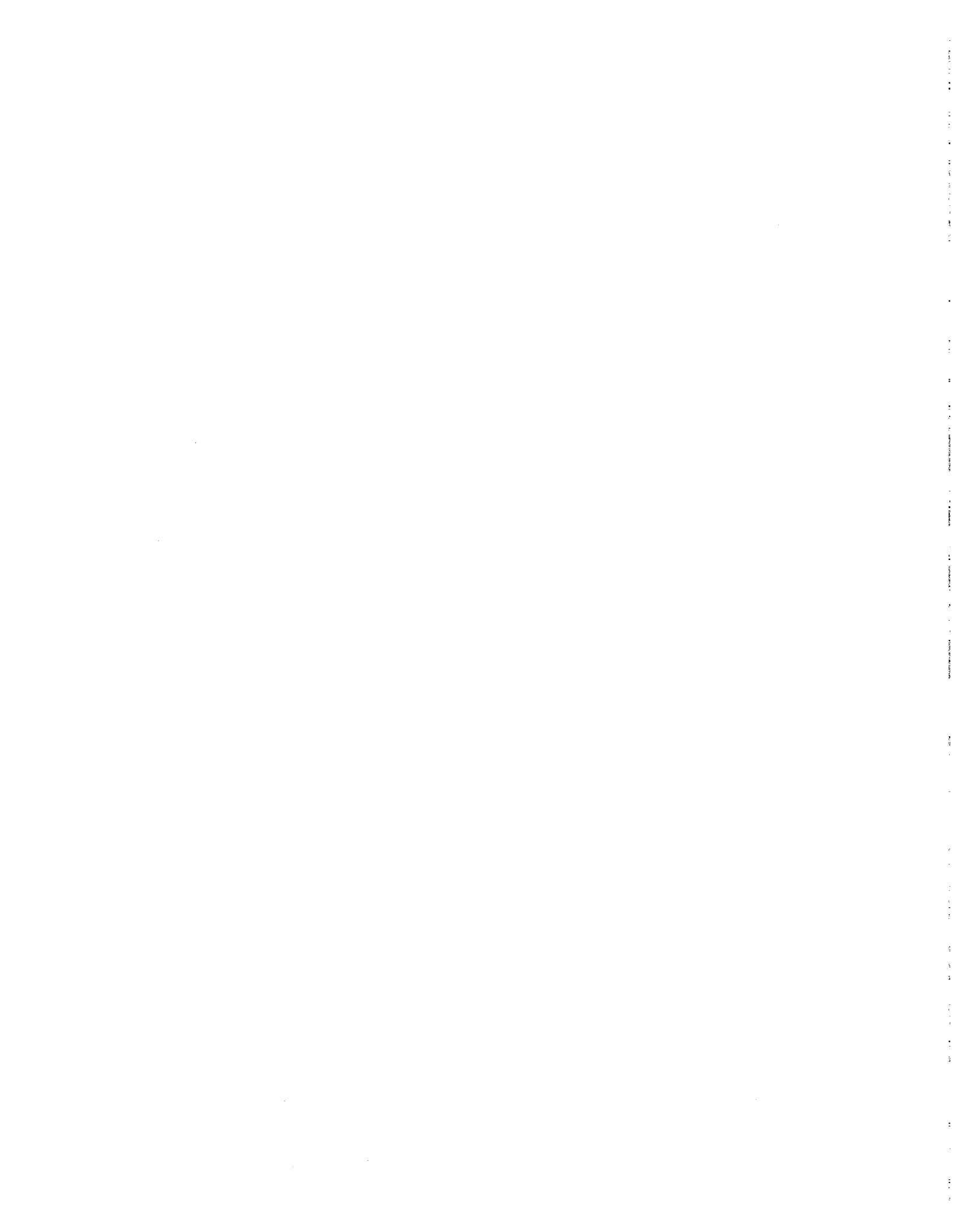
Secretary's ratio An industry-wide ratio of policy requirements to the total investment income. Each company then applied this ratio to its own investment income to determine its policy or required interest deduction.

Shareholders' surplus account The tax-paid memorandum account maintained by stock companies against which all distributions to shareholders are charged first. The account is increased cumulatively by taxable investment income and long-term capital gains (to the extent they are excluded from taxable income) and the small business deduction, tax-exempt interest deduction, and dividends received deduction.

Taxable investment income The interest earned, dividends earned, rents and royalties earned of a company less certain deductions (investment expenses, depreciation, real estate taxes and depletion) produces investment yield which is further reduced by the policyholders' share of this yield. Net long-term capital gains are added to investment yield which is then reduced by the company's share of tax-exempt interest and dividends received and the small business deduction. The remainder is taxable investment income.

Ten to one rule That portion of the Menge formula involving the 10 for 1 downward adjustment in reserves.

Term life insurance Life insurance protection during a certain number of years, but expiring without policy cash value if the insured survives the stated period.



CHAPTER 1

INTRODUCTION

Life insurance companies are taxed under provisions of the Internal Revenue Code enacted as the Life Insurance Company Income Tax Act of 1959 (LICITA). These provisions culminated 50 years of trial and error with alternative methods of taxation. The 1959 Act contains a number of controversial provisions, and, during the 20 years that have elapsed since its passage, the impact of these provisions on the industry has changed. Many features of the law were geared to the industry as it was structured in 1959, which may be described briefly as:

- mutual companies, which represented only 11 percent of the total number of life companies in business, dominated the industry;
- whole life insurance, generating large reserves and investment income, was the predominant life insurance product sold; and
- the rate of inflation was minimal (0.8 percent) compared to recent rates of 10 percent and more, and earnings rates on investments were much lower.

The Congress considered the industry's structure and provided special features in the 1959 Act that recognized:

- the competitive balance between mutual and stock companies,
- the importance of fostering the survival of small life companies that were by far the largest number of life companies doing business, and
- the long-term nature of the life insurance business.

In the past 20 years, the life insurance industry has changed considerably, reflecting the many economic pressures that U.S. businesses have had to face. The balance in the industry between stock and mutual companies has changed, and mutual companies no longer dominate the industry to the extent they did in 1959. This balance was a crucial factor in the House and Senate debates preceding passage of the Act. The lines of business that life insurance companies write has undergone a dramatic shift since 1959, away from whole life policies to term and group insurance. As a result of this shift away from whole life, insurance companies may become more dependent on underwriting income and less dependent on investment income which affects the way a life insurance company is taxed. There has been a dramatic increase in the pension line of business and its growth has yet to peak.

The effects of inflation on the industry are becoming more severe because of certain provisions of the Code applicable to

the industry. The most dramatic effect of inflation on the operation of LICITA is embodied in the determination of the policyholder reserve interest deduction. As nominal earnings rates rise in conjunction with inflation, the life insurance reserve interest deduction at first becomes larger, then becomes smaller when earnings rates exceed a certain level. Many companies are approaching the maximum reserve interest deduction available under current law. A fall in the reserve interest deduction results in a rise in the firm's tax liability.

However, as with other financial intermediaries, the life insurance industry is somewhat shielded from the ravages of inflation. The bulk of life companies' liabilities arise from long-term contracts of fixed dollar amounts that are unaffected by inflation. On the other hand, to the extent life companies' assets are invested in long-term, fixed dollar issues, the value of these investments is eroded by inflation.

As for the policyholders, inflation has eroded the savings element of whole life policies. The low guaranteed rates on policy loans attached to these policies has induced unanticipated demands on life company assets. Inflation also renders term insurance more attractive because it offers higher coverages at a lower cost when compared to whole life policies.

The tax consequences of these changes are becoming greater with the passage of time, and the Congress has in the past expressed great concern over the vulnerability of various industries to such changed industry positions. Several provisions of the Act have given rise to much litigation, and the equity of some of these provisions remains in doubt even today.

CRITERIA FOR EVALUATION

The examination of any tax law must be considered in light of its equity and efficiency. An income tax is considered equitable if comparable firms with equal incomes are taxed equally. Efficiency concerns the allocation of resources. For a tax to be efficient, it must not adversely alter the pretax allocation of resources in the economy. The manner in which annual life insurance company income is measured may create some inequities arising from certain deductions and allowances. The type of corporate organization (stock or mutual) can also affect the equity of LICITA depending upon the role of the policyholder in the mutual.

In examining LICITA, special provisions that may distort the allocation of resources must be addressed. ^{1/} Principal among the tax-induced distortions is the effect LICITA has on company investment policies. For example, the way earnings from tax-exempt securities are prorated between the policyholder and the

^{1/}These issues are discussed at length in chapter 4 of the full report.

company may have discouraged insurance companies from purchasing such securities. Furthermore, since capital gains are taxed favorably, companies are encouraged to purchase deep discount bonds. Also, large companies taxed primarily on investment income endeavor to arrange their business transactions to generate underwriting gains rather than investment income. Further, the income tax-exempt status of a portion of permanent policy proceeds favors life insurance over alternative forms of individual savings.

Our examination of LICITA begins with changes in the industry over the past 20 years. Most of these changes have direct tax consequences. The examination of changes in the industry is followed by an explanation of this very complex portion of the Code, including a brief history of Federal taxation of the industry and a discussion of the nature of life insurance company income. Following this is an examination of specific provisions of the Act and credit life reinsurance companies are then discussed. The report concludes with a discussion of various alternative changes to the Act that the Congress may find useful in any future discussion of the taxation of the life insurance industry.

OBJECTIVES, SCOPE, AND METHODOLOGY

This report provides the Congress with:

- an overview of the life insurance industry and changes in the industry since 1959,
- a detailed analysis of certain specific provisions of the Act in light of the changed industry conditions, and
- an examination of the revenue impact of certain proposed changes in various key provisions of the Act.

The framework of the 1959 Act has been accepted for the purposes of this study, though acceptance should not be construed to mean endorsement. Among the topics that are not considered within these pages are:

- the propriety of allowing companies a current deduction for additions to policyholders' reserves rather than postponing the deduction until benefits are paid, as some commentators have suggested;
- the extent to which the omission from the individual income tax base of amounts credited by the company to policyholders' reserves (the "inside buildup") should affect the structure of company-level taxation;
- the possibility of attributing company earnings to policyholders and taxing them at the individual level as a substitute for company-level taxation;

- the question of whether special offsets should be allowed during an inflationary period against taxes imposed on returns to capital, whether the recipients are life insurance companies, other companies or entities, or individuals;
- the propriety of bending tax policy to respect the "competitive balance" (the term normally used) between stock companies and mutual companies within the life insurance industry; and
- the relevance today of certain social and economic objectives that were expressed in the 1959 Act.

Some points relating to these omitted topics are raised in the comments we received on a draft of this report from the Department of the Treasury, the Internal Revenue Service, and industry representatives.

The literature available on the life insurance industry was reviewed and recognized experts in the area of life insurance taxation were consulted. Discussions were also held with the staff of the Joint Committee on Taxation, and their guidance and interest were most helpful. The life industry trade association, the American Council of Life Insurance (ACLI), and the National Association of Life Companies (NALC) were also most helpful. A.M. Best & Company, the principal reporter of life insurance industry data, was a valuable source of information. Much data on taxation of the industry was provided by the Internal Revenue Service. We obtained tax data for 42 of the largest life insurance companies for the 5-year period 1974-78 which provided a foundation for our analyses. Sample size was limited by the number of companies whose returns were available for the entire period. In 1978, these 42 companies held approximately 73 percent of the industry's assets and wrote about 62 percent of life insurance in force. While small in number, this sample represents a large portion of the industry's assets, premiums received, new business written, and insurance in force; and the revenue effects of any changes in the law would certainly be reflected in the returns of these companies. We also analyzed tax data for a sample of small life companies.

Methodological approach

This review was conducted in two phases. First, a survey of the industry was made to determine what issues were paramount, what data were appropriate to analyze, and what information would be most useful to the Congress in its legislative process. In August 1979, GAO hosted a conference of industry representatives and recognized tax experts. Additional meetings were held with industry representatives, the ACLI, the NALC, leading academic experts on life insurance, and industry executives.

During the implementation phase of our work we performed extensive analyses of taxpayer returns for categories of life companies segregated by asset size and form of organization.

This was done to ensure that all life company categories were fairly represented. In addition to taxpayer returns, a variety of data from other sources was examined to ascertain that our taxpayer analyses were as accurate as possible. Our recommendations reflect the results of the analyses performed.

CHAPTER 2

THE LIFE INSURANCE INDUSTRY IN THE AMERICAN ECONOMY: TWO DECADES AFTER THE 1959 ACT

INTRODUCTION

By any measure, the life insurance industry is a major component of the domestic economy. In 1978, 86 percent of American families owned life insurance at an average level of coverage per insured family of \$40,800. U.S. life insurance companies received life insurance premiums, annuity considerations, and health insurance premiums that year in the amount of \$78.8 billion which represented 5.4 percent of disposable personal income in 1978. Their net investment earnings in the same year totaled \$25.2 billion.

An important measure of industry size is the amount of life insurance in force, i.e., the face value of all outstanding policies. This amount represents the total of all potential policyholder claims against an insurer--the amount a company would have to pay in benefits should all of its policies suddenly mature. Total life insurance in force was nearly \$2.9 trillion at the end of 1978, \$288 billion more than a year earlier.

LIFE INSURANCE AND THE INDIVIDUAL POLICYHOLDER

Life insurance provides a number of important advantages for policyholders and their families. Principal among these are the role of life insurance as an estate creator, as a provider of security, as a saving medium, and as a credit mechanism.

FINANCIAL INTERMEDIATION

Through their insurance policies, millions of individuals have accumulated savings while providing security for their family's financial position. These premium dollars are pooled by insurers who cycle these funds back into capital markets in the form of investments. This process is conventionally labeled "financial intermediation." Financial intermediaries act as middlemen between suppliers of capital--savers, depositors, investors, shareholders, policyholders, or beneficiaries--and investors in real assets.

Among financial intermediaries, life insurance companies rank third by asset size. As of March 1979 commercial banks were by far the largest intermediary with \$1,332.5 billion in assets, followed by savings and loan associations with \$539 billion. The life insurance industry was third with \$399 billion, followed by private pension funds, mutual savings banks, State and local government employee retirement funds, other insurance companies, and credit unions, whose assets were substantially less. Life companies as a group have demonstrated a relatively

stable pattern of growth in comparison to most intermediaries. Noninsured or trustee pension funds, those pension plans not administered by life companies, have exhibited the most rapid growth and now rank as the fourth largest intermediary.

Changes in life company assets since 1952

The magnitude and structure of life company investment portfolios have changed substantially since 1952. Although life insurance has experienced a decline relative to other savings media, life companies continue to exercise a major influence on capital markets. In 1978, life insurers accounted for 54.8 percent of all new funds raised in the corporate bond market and 6.2 percent of total new mortgages. Over the 27-year period, 1952-1978, the total financial assets of life companies experienced a more than 5-fold increase, from \$71.5 billion at the end of 1952, to \$378.3 billion as of December 31, 1978. During the same time period, assets of banks increased 6 times, pension plans 20 times, and savings and loans 20 times.

Pattern of savings with life insurance companies

Over the past three decades, two significant developments have affected the demand for life insurance as a savings medium:

- competition among financial intermediaries for consumer savings has sharply increased; and
- life companies have faced increasing demands for policy loans as yields have increased in alternative savings channels.

Savings through life insurance has declined relative to other outlets for consumer savings. Life insurance savings are defined to include both changes in reserves on life policies and life company administered pension reserves. Based on this measurement, savings flows through life companies have ranged as a percentage of total financial asset acquisitions from a high of 16.8 percent in 1954 to a low of 8.6 percent attained in 1972.

Much of the diminished role of life insurers in consumer financial asset accumulation stems from a pattern of reduced savings through life insurance reserves. Savings through life insurance fell by 66 percent as a proportion of total asset acquisitions between 1952 and 1978, the share of asset acquisitions accounted for by insured pension plans actually increased by 48 percent over this same period. Insurer gains in the pension area reflect a general movement of household savings into pension accounts during the post-World War II years. Total non-governmental pension reserves, encompassing both insured and non-insured plans, accounted for 4.6 percent of total annual savings by individuals in 1946 and 14.2 percent in 1978.

Two associated phenomena appear to largely account for the reduced role of insurance as an outlet for household savings. One is the recent trend toward greater specialization of financial intermediaries. Intermediaries are increasingly providing instruments designed specifically for the performance of certain functions, e.g., as pension accounts have experienced rapid growth, the demand for life insurance as a means to accumulate savings for retirement has declined. Where insurance had previously provided both protection and retirement income, these functions are increasingly performed by two distinct vehicles--a pension plan for savings and a term life insurance policy for protection.

Shift to term insurance

Although life insurance (through the sale of permanent insurance) has declined as a savings medium, it continues to remain a prime method for protection against uncertainties. This pattern has been reflected in substantial shifts in consumer demand for insurance since the enactment of LICITA in 1959. Twenty years ago life insurance companies were predominantly sellers of permanent life insurance. It contains an important savings element since a portion of the premiums paid early in the duration of a policy is allocated to reserves.

In recent years, however, an increasing portion of policies issued are term life. A term policy, in contrast to permanent life, provides coverage for a limited period only and expires without cash value in the event that the insured party survives the contracted coverage period. To maintain term policies, lower reserves are required than ordinary life policies with the same face values.

Introducing variable life insurance represents the industry's effort to improve the attractiveness of the life product and to compete more effectively with other investment forms providing higher returns. Unlike traditional fixed-benefit insurance that guarantees a specific death benefit or annuity, variable insurance offers variable benefits and values dependent on the insurer's return from their investment portfolios. Normally a minimum death benefit is guaranteed. The concept of variable insurance is to provide policyholders a yield that is approximately indexed to changes in market rates of return.

CHANGING NATURE OF PRODUCT OFFERINGS

With the increasing diversity of company offerings, the distinctions between the life insurance sector and other financial institutions have become blurred. Life insurance premiums have declined in their percentage contribution to the industry's premium receipts while health, annuity, and pension plan premiums have expanded. Accompanying product line diversification has been a movement toward "one stop selling," facilitated by the collaboration of insurance companies with property, casualty, and other sister or subsidiary companies. Life companies have become

increasingly able to meet most of their customers' insurance needs.

From a level of 22.7 percent of total life insurance in force in 1952, group life has grown to its current level of 43.3 percent. Such growth has had important implications for the channeling of consumer savings since the majority of group insurance purchased is 1-year renewable term with no savings element. To the degree that group life insurance reduces the demand for savings-type insurance, savings flows through life insurance will be less than they would have been otherwise.

Pensions

The administration of pension plans has become an important part of the life insurance business. Private pension plans have become a very important channel for private savings. Between 1952 and 1978 pensions, including both plans administered by life insurance companies and noninsured plans, have accounted for an average of 13.1 percent of individuals' annual savings, attaining a peak of 16.1 percent in 1960.

Pension plan reserves represent a sizable fraction of total insurance company reserves. In 1978 they totaled \$119 billion, more than six times their size in 1959. They amounted to about 62 percent of savings by individuals through life insurance.

INDUSTRY COMPOSITION

Although the largest life companies continue to be organized as mutuals, stock life companies as a group have grown faster than mutuals. Mutual companies differ from stock companies because they have no stockholders; instead, policyholders are technically the owners of these enterprises. In terms of admitted assets in 1979, 15 of the 20 largest life companies were organized as mutuals. If insurance in force is the measure of company size, mutuals provided \$1,568 billion or 51 percent of the total life insurance in force in 1978. Mutuals are only 8 percent of the total number of life companies, but they provide more than half of all life insurance in force.

It is evident that in recent years stock companies have grown more rapidly than mutual companies. The number of life companies increased more than 33 percent from 1959-78, and the bulk of these companies were stocks. During this period the number of mutual companies remained nearly constant.

CHAPTER 3

FEDERAL INCOME TAXATION

OF LIFE INSURANCE COMPANIES

CHARACTERISTICS OF THE LIFE INSURANCE INDUSTRY

The Life Insurance Company Income Tax Act of 1959 was designed to tax the industry in a way that recognized its basic characteristics. Experience with several taxing formulas during the 50 years prior to the Act made it evident that a permanent taxing formula must recognize three basic and distinct features of the industry.

First, the income of life insurance companies is difficult to measure on an annual basis. The companies write long-term policies that create commitments lasting into the future, and they contend that what appears to be income in one year may, in fact, be required to meet future needs. The life insurance industry maintains that this concept of reserves for future contingency payments is necessary.

Second, the industry contains two kinds of life insurance companies. The owners of mutual life insurance companies are also the policyholders, and, therefore, the companies are cooperative-type ventures. The owners of stock companies are the stockholders, and these companies are therefore analogous to other noninsurance corporate entities. In recognizing these two distinct types of companies, special provisions were included in the Act to avoid disrupting the competitive balance between them.

Third, a fundamental tax policy problem exists in trying to decide what share of investment income should be set aside to meet policyholders' future claims and what should be considered the "company's share." The Congress developed the concept that the life company and its policyholders were partners sharing investment income and expenses. Just as the members of a partnership share in the profits and losses of the venture, so the Congress believed the company and policyholders should share proportionately each investment income and expense item.

METHODS OF TAXING LIFE INSURANCE COMPANY INCOME

An insurance company typically has two primary sources of income, underwriting income and investment income. Underwriting income consists of mortality gains (fewer people died than the mortality table used predicted) and loading gains (the annual cost of operations was over-estimated). Investment income includes interest earned, dividends received, rents, royalties, and other items of income (e.g., net short-term capital gains, commitment fees and bonuses, etc.).

Because of these two types of income, the Congress has in the past wrestled with various conceptual approaches to adopt in taxing the life insurance industry. These approaches were the total income approach, the free investment income approach, and the net investment income approach. The total income basis treated all forms of income and all lines of insurance uniformly. Life insurance companies were taxed as any ordinary corporation under the general provisions of the tax code. Under the free investment income approach life companies were taxed only on the excess of net investment income above amounts required to be set aside to meet obligations to policyholders. The net investment income basis taxed the industry on net investment income without a deduction for reserve additions. However, the tax rate was set at a level designed to produce tax revenues as though the tax were levied on free investment income. The present tax law represents a combination of these approaches.

HOW TAXABLE INCOME IS ESTABLISHED

The formula for computing taxable income is divided into three phases; a detailed explanation of each phase and an illustrative case example is presented in appendix I of the full report. All life insurance companies are permitted three types of deductions in arriving at taxable income:

- those that are allowed any other corporate entity;
- those that reflect the basic characteristics of the industry; e.g., policyholders' dividend deductions, nonparticipating policy deductions, etc.; and
- those intended to help new and small companies.

Phase I: Taxable investment income

Taxable investment income is computed by prorating investment yield between the company and the policyholders. Only the company's share is taxable.

Phase II: Gain from operations

Gain from operations is the sum of income from investments and underwriting gains less the special deductions. Simply stated, Phase II determines the taxable underwriting gain that is half of the excess of gain from operations over taxable investment income determined in Phase I.

The other half of the excess of gain from operations over investment income is tax deferred. This deferred amount is taxable when it is distributed to the shareholders or when it exceeds certain limits.

Phase III: Deferred income taxes

Insurance companies may defer a part of the tax on their underwriting income. The law provides that stock companies, unlike mutual companies, must establish two accounts: a shareholders' surplus account and a policyholders' surplus account. These two accounts are not balance sheet items; they are maintained for tax purposes only.

The shareholders' surplus account is a tax-paid account while the policyholders' surplus account consists of the deferred portion of gain from operations plus amounts deductible under the special provisions of the Act (e.g., nonparticipating contracts, group life insurance, etc.).

SUMMARY

In tracing the history of the life insurance industry's taxation, two difficulties stand out: (1) what items should be included as income to the companies, and (2) how reserve additions should be reflected in the tax base. Reserve additions, within certain limitations, are allowed as a deduction from taxable income, and the Congress has decided to tax all life companies on gain from operations. The tax formula accomplishes four major objectives that can be discerned:

1. All companies are taxed on gain from operations rather than on taxable investment income. Prior to passage of the Act, companies with large underwriting income and small investment income (e.g., specialty companies issuing only credit life and/or credit accident and health insurance policies) escaped the Federal income tax.
2. Tax is deferred on half of the excess, if any, of gain from operations over taxable investment income. The rationale was that companies with underwriting income in excess of taxable investment income should continue to pay tax on taxable investment income plus only a partial tax on underwriting income, the balance of the tax being deferred.
3. The deferred amounts are taxed if and when the need for deferral ceases.
4. A floor on the calculation of gain from operations is provided to prevent it from falling below taxable investment income less \$250,000. This was necessary because policyholders' dividends were deducted in determining gain from operations. For large stock and mutual companies this deduction would have brought gain from operations down to a minimal figure far below the taxable investment income base. To counter this, a limit was placed on the deductibility of policyholder dividends.

For all practical purposes this limitation kept large life companies on the same tax base as the prior law, but with a \$250,000 additional deduction from taxable investment income.

CHAPTER 4

EXAMINATION OF SPECIFIC

PROVISIONS OF THE 1959 ACT

POLICY AND OTHER CONTRACT LIABILITY REQUIREMENTS

In arriving at taxable investment income, life companies begin with gross revenues. From these revenues they deduct investment expenses to derive investment yield. Three important deductions are made from this yield: (1) the reserve interest deduction, (2) the pension reserve deduction, and (3) the interest paid deduction. These three deductions are actually parts of a deduction considered necessary to meet policyholder requirements. The interest paid part of the deduction consists of interest on indebtedness incurred by the company as well as any interest on policyholder accounts not involving life contingencies, e.g., interest paid on dividend accumulations, premiums paid in advance, supplementary contracts not involving life contingencies, etc.

Reserve interest deduction

Currently, the Menge formula may be considered one of the most controversial provisions of LICITA. The Menge formula defines taxable investment income as the excess of total investment income (net of investment expenses) over a new type of reserve interest deduction. This new reserve interest deduction was designed to approximate what the deduction would be if the company held reserves at its average earned rate and applied this average rate to the approximate reserves. Because the actuarial tables used to calculate reserves are prepared using assumed rates of interest (e.g., 3.0 percent, 3.5 percent, etc.) it would be impractical to actually recalculate the reserves on a rate that not only would be difficult to calculate but would also change each year. This is where the "10 to 1" rule came in. Based on old actuarial studies, it was found that for each 1 percent increase in the rate assumed in calculating the reserves there was an approximate reduction of 10 percent in the amount of the reserves. The formula therefore provided for reducing the reserves by 10 percent for each 1 percent by which the average earned rate exceeded the assumed reserve rate. To this reduced reserve amount the 5-year adjusted reserves rate was applied and the result is the company's reserve interest deduction.

The relationship between the reserve deduction that is allowed under the 10 to 1 approximation and the interest deduction based on the assumed rate is a portion of a parabolic curve, starting from 100 percent when the two rates are equal and increasing to a maximum (halfway between the assumed rate and 10 percent) and then decreasing to 100 percent again when the adjusted earnings rate equals 10 percent. However, the curve does not stop there. For adjusted earnings rates in excess of 10 percent, the reserve deduction allowed by the Menge formula actually becomes less than 100

percent of the required interest until it disappears entirely, if and when the adjusted earnings rate exceeds the assumed rate by 10 percent or more. Many large life insurance companies are approaching the peak of the curve. Add to this the change in the mix of business sold, with term becoming much more important, and it becomes apparent that the formula is not a permanent answer to the problem of determining the proper policyholder reserve interest deduction.

At least two developments affecting the operation of the 10 to 1 rule have occurred in the industry. One was the advent of the dual interest rate policy. The other development was that some life companies have begun to offer their policyholders the right to elect to convert their life policies to a higher face amount with no additional premium.

Pension reserve interest deduction

At the time the 1959 Act was being considered, the Congress agreed with the industry that special treatment was needed for pension reserve interest. The industry made the argument that they were at a disadvantage compared with self-insured plans having assets held by bank trust departments. The companies pointed out that they were taxed on interest earned by pension reserves while banks were not. They also made the point that it was small businesses that needed insured plans. In accepting these arguments, the Congress made special provisions in LICITA for qualified pension reserve interest as follows:

- the 10 to 1 rule for adjusting reserves would not be used for pension reserves; and
- the current earnings rate would be used instead of the 5-year average rate (the current rate is higher than the 5-year average when interest rates are rising).

These special provisions for pensions worked fairly well until the early 1960s when pension buyers became interested in having their funds invested in common stocks. At this point the law, as well as insurance regulations, were changed to permit companies to set up separate accounts and get the benefit of the full interest deduction as well as realized capital gains, provided the policies in the separate account did not guarantee any investment results. Again, the equality of tax treatment between insurance companies and trustee plans was established.

With the passage of time the interest available on long-term bonds became such that the companies were no longer competitive without using the new money or investment year approach. However, companies that did not segregate pension plans could deduct only their current earnings rate (on the whole portfolio).

By either eliminating mortality guarantees or limiting them to not more than, say 5 years, the companies are able to treat the total interest allowed on the pension funds as interest paid--either interest on indebtedness or amounts in the nature of interest. To the extent that this was done, companies were able to get a tax deduction for the full amount of interest credited to the pension funds. However, certain types of pension contracts necessarily provide annuity guarantees, such as individual contract pension trust plans. For these contracts, companies still have to treat the reserves as pension reserves and, even though the 10 to 1 adjustment is not used, they still get the benefit of only their current portfolio rate. To the extent that they must allow more interest than this to stay competitive, the excess can be lost as a tax deduction.

PHASE I AND PHASE II INTERPLAY

A typical life company can find itself in at least four common tax situations. These are:

- taxable income equals taxable investment income less \$250,000 (Phase I);
- taxable income equals taxable investment income plus half of the excess of gain from operations over taxable investment income (Phase II positive);
- taxable income equals gain from operations, where gain from operations is less than taxable investment income by more than \$250,000 (Phase II negative); and
- taxable income equals gain from operations where gain from operations is less than taxable investment income by less than \$250,000 (corridor).

From the above it is evident that the tax situation a company finds itself in can vary considerably, and management decisions take account of this. For example, a mutual company taxed on taxable investment income less \$250,000 can ordinarily receive no tax deduction for expenses that cannot be considered investment expenses. Therefore, this company would endeavor to allocate its expenses so that it receives the greatest possible tax deduction. Sometimes this allocation of expenses can be accomplished by using a subsidiary that is assigned to certain types of work, and the subsidiary, finding itself in one of the other tax situations, can use these expenses against its gain from operations. A company taxed in Phase I could encourage expansion of nonparticipating lines of business, generating lower reserves and higher underwriting gains. In this way, the company would seek to convert an additional dollar of investment income into an additional dollar of underwriting gain.

Another way in which taxes among the various phases have been shifted is through the use of reinsurance. That reinsurance transactions are a necessary and integral part of the insurance business is recognized; however, a question arises as to whether or not there is a real shifting of risk from the reinsured company to the reinsuring company.

One type of reinsurance is called coinsurance, in which the ceding company pays to the reinsuring company a part of the premium the ceding company receives from the policyholder. The part of the premium the ceding company pays to the reinsuring company is proportionate to the part of the policy reinsured. In return the reinsuring company assumes all obligations under the reinsured portion of the policy to pay claims, cash values, dividends, etc. A variation of this type of reinsurance is called modified coinsurance. Under this type of reinsurance the ceding company reinsures part or all of a specific group of policies but retains the assets held against the reserves (unlike regular coinsurance). It pays a premium based on the amount of investment income it earns on the assets retained. Without Internal Revenue Code Section 820, modified coinsurance could have resulted in the ceding company paying tax on the investment income it earned and the reinsuring company would also have paid on this amount as underwriting income. Section 820 was adopted so that the two companies involved could elect to have the modified coinsurance taxed in the same manner as regular coinsurance and thus avoid any possible double taxation.

In recent years, the possibilities of tax saving through modified coinsurance have been recognized by many life insurance companies. The practice is no longer confined to pension business. It appears that more and more companies are ceding modified coinsurance to shift income from a taxable Phase I basis to a nontaxable Phase II basis. ^{1/} It is apparent that the use of

^{1/}For example, "Prudential Insurance Company of America, the nation's largest insurance company, paid \$380.2 million in federal income taxes in 1979. Last year, despite the growth of its business, Prudential's tax bill plummeted to \$120 million, less than one-third of the 1979 total . . . The tax magic is accomplished through transactions . . . known as 'modified coinsurance.' Richard V. Minck, . . . [an executive of the] industry's chief trade group . . . says he believes that the tax loss to the federal government from [modified coinsurance transactions] runs in the billion or billion-and-a-half range." Daniel Hertzberg, "Life Insurers Cut Federal Income Taxes Using Special Reinsurance Arrangement," Wall Street Journal, May 20, 1981, p. 14. For a further discussion of the use of modified coinsurance to reduce Federal income taxes, see Herbert E. Goodfried, "Odd Men Out," Barron's, January 12, 1981, p. 28.

modified coinsurance by many companies has effectively thwarted the three phase system of taxing total life insurance company income.

PRELIMINARY TERM ADJUSTMENT--
SECTION 818(c)

It is clear that the Congress in 1958 and 1959 was cognizant of the differences between reserves held on a preliminary term basis and reserves held on the net level premium basis. In an attempt to aid small and new companies, the Congress provided all companies the privilege to elect to revalue reserves on an approximate basis which put them closer to the net level basis for tax purposes. A smaller, new company would prefer to hold its reserves on the preliminary term basis for annual statement purposes (because it produces a larger surplus than the net level basis) but would elect to convert its reserves to the net level basis for tax purposes (because it results in a higher reserve deduction).

In effecting this revaluation, the Congress permitted life companies to use either an approximate method or an exact revaluation method. How life companies revalue reserves is important because it can significantly reduce their tax liability. This results because in calculating the revalued reserves there is a direct effect on the size of the reserve deduction. The approximate revaluation allows an increase of \$21 per thousand of the amount at risk for permanent plans of insurance. Such an allowance is not appropriate as it results in unwarranted reserve deductions.

DEFERRED ANNUITIES

The taxation of earnings associated with deferred annuities presents several issues that we feel deserve careful study. Deferred annuities are contracts that defer the "pay out" of the annuity to some future time. These contracts may be either single premium annuities with a lump sum paid by the annuitant to the company at the beginning of the contract or they may be annual premium deferred annuities with periodic payments made to the company during the "pay-in" period. As with permanent life insurance, there is a deferral of at least part of the tax on interest earned on the funds during the pay-in period. During the past decade, there have been indications that deferred annuities were being sold as investment contracts, perhaps with no idea of ever using the contracts' annuity feature. In addition, the Securities and Exchange Commission is interested in regulating the marketing of these contracts if they are primarily investment vehicles rather than annuities.

A common type of annual premium deferred annuity now being issued is called the flexible premium annuity. Under this contract, premium payments, with a few restrictions, may usually be made on an unscheduled basis, both as to time of payment and amount of payment. The State laws on minimum required reserves stipulate a 4.5

percent maximum interest rate for annual premium life insurance and annual premium deferred annuities, but allow 7.5 percent for reserves for all single premium immediate annuities and single premium deferred annuities, if issued on a group basis. We understand that the flexible annuities, mentioned as being part of the decreasing term-deferred annuity package, are in some cases considered to be a series of single premium deferred annuities with each premium payment under the flexible contract considered to be purchasing a separate single premium policy. It is our further understanding that by means of a master trust arrangement the contracts are considered to be group single premium deferred annuities and thus qualify for the 7.5 percent reserve interest rate rather than the 4.5 percent applicable to annual premium deferred annuities and annual premium life insurance. This can have a considerable effect on the amount of the reserve deduction allowable for tax purposes.

DEFINITIONS UNDER LICITA

One of the greatest difficulties of operating under LICITA has been the lack of clear and explicit definitions in a number of areas. In general, most of these difficulties have arisen because of changes either in the industry or in interpretations of the Act. In addition to the definition of a life insurance company, it appears that the greatest difficulties involve the definitions of assets, life insurance reserves, and investment expenses.

CHAPTER 5

CREDIT LIFE REINSURANCE

Credit life insurance is term insurance, generally decreasing in amount as a loan is repaid. It protects the borrower's family, as well as the lender, against the unpaid debt that may be left at death. It is commonly a part of consumer contracts. Life companies generally issue credit insurance through lenders such as banks, auto dealers, finance companies, credit unions, and retailers, who in turn make arrangements with borrowers. It is only one of several kinds of insurance sold through lenders in connection with their loan and charge account businesses. Others are credit accident and health, which cover payments if the borrower becomes disabled, and credit property insurance, which covers the loss of or damage to the items a consumer buys on credit.

While doing mostly nonlife business, Arizona's approximately 400 credit reinsurance companies, representing almost 25 percent of all life companies, have qualified for major tax advantages meant for companies doing mostly life insurance business. Under Section 801 of the 1959 Act, an insurance company is considered a life insurance company for Federal tax purposes if its life insurance reserves, including noncancellable accident and health (A and H), are more than 50 percent of its total reserves. Arizona credit reinsurance companies have maintained nonlife reserves below the 50 percent level by having another company hold their nonlife reserves even though they assume all substantial insurance risks on such policies.

The legality of this was litigated all the way to the Supreme Court, in United States v. Consumer Life Insurance Company (430 U.S. 725 [1977]) and, in a dissenting opinion, Mr. Justice White, joined by Mr. Justice Marshall, wrote:

The Court today makes it possible for insurance companies doing almost no life insurance business to qualify for major tax advantages Congress meant to give only to companies doing most life insurance business. I cannot join in the creation of this truckhole in the law of insurance taxation. . .

This rule would permit an A&H insurance company to qualify for preferential treatment as a life insurance company by selling a few life policies and then arranging, by means similar to those employed here, for a third party to hold the A&H premiums and the corresponding reserves. Under the majority's rule, these reserves held by the third party to cover risks assumed by the A&H company would not be attributed to that company; its total reserves for purposes of Section 801 would consist almost entirely of

whatever life insurance reserves it held; and the company would satisfy the reserve-ratio test. [footnote omitted] I cannot believe that Congress intended to allow an insurance company to shelter its nonlife insurance income from taxation merely by assuming an incidental amount of life insurance risks and engaging another company to hold its reserves. . .

The majority observed that it was merely interpreting the legislation enacted by the Congress and that if changes are in order, it is the job of the Congress and not the Court to make them.

SUMMARY

Credit reinsurance companies writing predominantly nonlife insurance business have qualified for tax advantages intended for companies writing predominantly life insurance. These companies represent approximately 25 percent of all life insurance companies. Lenders (banks, finance companies, and auto dealers) have established their own reinsurance companies to capture a larger share of the credit insurance business. Under Section 801 of the Code, an insurance company will qualify as a life insurance company for tax purposes if its nonlife reserves are less than 50 percent of total reserves. Credit reinsurance companies have maintained their nonlife reserves below the 50 percent level by arranging for another company to hold their nonlife unearned premium reserves, even though they assumed all risk on the policies for which the premiums had been paid. The IRS has contested this in several court cases which eventually reached the Supreme Court in United States v. Consumer Life Insurance Company. The Court's ruling in favor of Consumer Life was largely due to the fact that Section 801 did not appear to prohibit this practice.

CHAPTER 6

CHANGING THE LAW: ALTERNATIVES AND EFFECTS

THE SAMPLE PROFILE

To study the effect of any changes in the tax law on revenues, the tax returns of 42 of the largest (by asset size) U.S. life insurance companies were analyzed. Sample size was limited by the number of companies whose returns were available for the 5-year period 1974-78. The Internal Revenue Service provided these returns. While small in number, this sample represents a large portion of the industry's assets, premiums received, new business issued, and insurance in force. The revenue effects of any changes in the law would certainly be reflected by these companies. We also analyzed taxpayer returns for categories of life companies segregated by asset size including a detailed analysis of 1,254 life companies with assets of less than \$25 million. This was done to ensure that all life company categories were fairly represented.

Sample company income and tax trends

To study trends in both income and Federal income taxes, we analyzed the tax returns of our sample companies for 1974-78. We used gain from operations as the measure of annual income, since this is the tax base. Gain from operations represents a total income approach that attempts to make taxation of life insurance companies comparable to other corporations. While this income measure may not be precise, it does reflect income after a deduction for the increase in reserves as well as deductions reflecting the costs of doing business. For purposes of our analysis, the special deductions allowed life insurers (i.e., policyholder dividends, group A and H, and nonparticipating deductions) are not subtracted from gain from operations. Also, this income measure does include all policyholder dividends, some of which reflects redundant premiums. Even with these flaws, gain from operations should reflect growth trends in the life insurance industry.

Life insurance companies' income has risen since 1975. The rate of growth was especially rapid for stock companies, although the level of mutual company income was, of course, much higher. This may in part reflect the failure to deduct the redundant premium portion of policyholder dividends.

Using gain from operations (as specified here) as the tax base in calculating effective tax rates, no discernible pattern of growth in the effective tax rates on income for the industry can be drawn. Further, when examining the trends of effective rates for individual companies over the same period (1974-78), no substantive pattern of growth is observed. While the effective income tax rate on mutual companies is generally somewhat lower, due primarily to the inclusion of policyholder dividends

in income, the differences in effective tax rates between stock and mutual insurers appears relatively insignificant.

If the life insurance industry tax burden is compared to the income tax burden on the banking industry, it would appear that banks have significantly reduced their tax burden in terms of tax as a percentage of all company assets. Life insurance policyholders pay little if any tax at the individual level on their investment in insurance. Bank customers, on the other hand, do pay tax at the individual level on their investments in bank deposits.

THE POLICYHOLDER RESERVE INTEREST DEDUCTION

As demonstrated in chapter 4, the 10 to 1 rule operates in a manner to initially increase and then decrease the reserve interest deduction as the difference between the actual and assumed earnings rates widens. In recent years, because of rising interest rates, investment earnings have been climbing steadily. Consequently, the gap between the actual earnings rate and the assumed rate has also been widening. The assumed rates, because of State statutes, normally have a low ceiling (currently 4.5 percent for ordinary life insurance reserves). In the case of some large companies, this gap between the actual earnings rate and the assumed earnings rate has widened to a point where the reserve deduction may have reached the maximum and begun to fall. A fall in the reserve deduction implies that tax liabilities rise at an increasing rate. Thus, the marginal tax rate on investment income rises as the increasing interest rates widen the spread between the actual and assumed rates.

EFFECT OF ALTERNATIVE METHODS OF COMPUTING THE RESERVE DEDUCTION

Several alternative solutions have been discussed for replacing the 10 to 1 rule used in determining the reserve interest deduction. The three analyzed here are:

The free interest method

The reserve interest deduction under the 10 to 1 rule is divorced from the interest required (assumed) to meet future obligations. Consequently, the first option is eliminating the 10 to 1 rule and substituting for it the required interest. The required interest is computed by multiplying the assumed interest rate by the level of reserves. This formula would result in a 36 percent increase in 1978 tax liabilities (from \$2,112 million to \$2,869 million) for the 42 sample companies. Further, the marginal tax rates on investment yield fall and could never reach the anticipated heights possible under the 10 to 1 rule; that is, the maximum marginal tax rate under this alternative can rise up to the maximum statutory rate but cannot exceed that rate.

The geometric approximation rule

An alternative approximation has been suggested that reduces the rapid rise in marginal tax rates on investment yield. This suggested approximation uses a term from a geometric progression to calculate the policyholder reserve deduction. It assumes that for a difference of "n" percent between the actual and assumed earnings rates the level of reserves decreases by 0.9 to the nth power. For example, an earned rate 2.0 percent higher than the assumed rate adjusts reserves to 81 percent (0.9 squared multiplied by 100 percent) of actual reserves. These adjusted reserves are then multiplied by the actual earnings rate to obtain the reserve interest deduction. It has been contended that this geometric approximation is an alternative method of adjusting reserves in a manner more consistent with the actual earnings rate, considering the current gap that exists between the assumed and actual earnings rate.

To illustrate the effect of substituting the geometric rule for the 10 to 1 rule, the total tax liability of the 42 sample companies for 1978 was calculated using this formula. For 1978 the use of the geometric rule would have reduced the 42 companies' tax liabilities by a total of 7.0 percent, from \$2,112 million to \$1,964 million. Under this alternative, industry tax liabilities would decrease immediately and then not rise as rapidly as they would under the current law if earnings rates continue to rise and the gap between assumed and actual rates continues to widen.

Substituting a 4.5 percent maximum for the earnings rate

The first alternative, which grants a deduction only for assumed reserve interest and eliminates the 10 to 1 rule altogether, taxes income of life companies that is not currently taxed. On the other hand, the alternative of using the geometric approximation permits a larger reserve interest deduction. Between these two extremes some other arbitrary measure for the reserve interest deduction may also be considered. One such measure, a 4.5 percent maximum, which can be substituted for the adjusted reserves rate in the current 10 to 1 rule, would result in a deduction that falls between the two extremes.

Using the 4.5 percent rule and adjusting reserves by the 10 to 1 method

Basically, this alternative permits each company to adjust reserves to a 4.5 percent basis. Though the selection of 4.5 is arbitrary, as any specific number selected would be, this assumed rate is the maximum rate permitted in most States for ordinary life insurance. Under this method, the reserve interest deduction is obtained by substituting the 4.5 percent for the earnings

rate in the 10 to 1 rule for reserve adjustment and then applying the 4.5 percent rate to adjusted reserves. For the 42 companies examined that year, tax liabilities would have increased from \$2,112 million to \$2,322 million or 10 percent, assuming the 10 to 1 rule was retained for the adjustment of reserves to the 4.5 percent rate.

Using the 4.5 percent rule
and adjusting reserves with
the geometric approximation

If desired, either the 10 to 1 rule or the geometric rule could be used to adjust reserves to the 4.5 percent rate with each producing similar results. If reserves were adjusted to the 4.5 percent rate using the geometric rule, tax liabilities for the 42 companies in 1978 would have increased to \$2,308 million or 9.0 percent. It makes little difference if either the 10 to 1 or the geometric rule is used to adjust reserves since the difference between 4.5 percent and the assumed rate for each company is small.

Although this method of calculating the reserve interest deduction still provides for a deduction in excess of assumed reserve interest, it does offer the following advantages:

- If the assumed rate rises to 4.5 percent, this method of calculating the reserve interest deduction becomes equivalent to the free interest approach.
- Each company uses its own assumed rates, actual reserves, and investment yield in calculating the deduction thereby preserving the individual company's incentive to remain conservative and earn the highest rates.
- A need to calculate the current earnings rate for this purpose would no longer exist; and because the determination of assets would be unnecessary, the controversy surrounding the inclusion of due and deferred premiums need not be reopened for this purpose.
- The marginal tax rate on investment yield levels off at the statutory corporate rate of 46 percent.

FIFTY PERCENT DEFERRAL
OF UNDERWRITING GAINS

The deferral of half of the excess of underwriting gains over taxable investment income is of principal benefit to stock companies, although in the early years of the law's existence some mutual companies may have taken advantage of this provision. Along with this deferral additional deductions can be made for group life and A and H and nonparticipating contracts. These

have also helped stock companies considerably in deferring taxes on part of their operating income.

Over time the industry's performance has proven predictable. Mortality experience, operating expenses, premium receipts, and investment yields have all been favorable.

"The [rate] ... of mortality has been going down. This improvement has been phenomenal. During the past decade, the mortality of medically insured risks has been improving at about 2.1 percent a year.

Age Adjusted Death Rate Per 1000

1930	12.5
1940	10.8
1950	8.4
1960	7.6
1965	7.4
1970	7.1
1975	6.4
1977	6.1

... Operating expenses as a percentage of premium (15.7%) have stayed fairly level." 1/

In periods of abnormal claims, life companies have found their incomes more than sufficient to meet unanticipated events. At the depth of the Great Depression in 1933 the cash inflows of 45 large companies, holding 85 percent of all life insurance company assets, were nearly double the total of that year's disbursements. Of course, the experience of individual companies may have been less favorable.

We analyzed the returns of the stock companies in our sample to ascertain the size of their policyholders' surplus accounts. On December 31, 1976, the total policyholders' surplus accounts for these 18 companies stood at \$1,648,359,717. This represented 3.1 percent of their assets at that time. A year later on December 31, 1977, the total of the accounts had grown to \$1,837,410,272 of 3.2 percent of assets. If this amount had been taxed currently as it was being built up, the tax would have been approximately \$900 million. We realize, of course, that the deferral of 50 percent of the "spillover" is not the only amount that is used to build up the policyholders' surplus--the special deductions have also contributed to the build up of the fund.

The same returns of the 18 stock companies show that as of December 31, 1976, the shareholders' surplus accounts amounted to

1/Melvin L. Gold, "The Future Course of the Life Insurance Industry," Best's Review Life/Health Insurance Edition, vol. 81, (April 1981) p. 20.

\$2,248,881,818 or 4.2 percent of assets, and as of December 31, 1977, they were \$2,620,202,335 or 4.5 percent of assets. The figures shown, in our opinion, indicate that the larger companies, with their moderately large shareholders surplus accounts, do not need the extra cushion provided by the deferral portion of the policyholders' surplus account. Even with this removed they would still have the benefit of the special deductions.

Preliminary term reserve

As noted previously, the Congress, in an attempt to aid new and small companies, included in LICITA a provision allowing companies that established reserves on a preliminary term basis to convert these reserves to the net level premium basis. This provision was appropriate in 1959 when most large companies established reserves only on the net level premium basis, and generally small (mostly stock) companies established reserves using the preliminary term basis. This situation has changed and now many large companies are using preliminary term basis for new business. These companies are now electing under Section 818(c) to convert these reserves to the net level premium basis, using for the conversion the 21-5 method discussed (in appendix). Rather than using the 21-5 approach, it would be more accurate today to use \$15, a little more than two-thirds of the figure now specified in the law, to approximate additions to preliminary term reserves for permanent life policies. For term policies with a duration of 15 or more years, the continuation of the \$5 per \$1,000 amount at risk called for in the current law appears appropriate.

CHAPTER 7

CONCLUSIONS AND RECOMMENDATIONS

As indicated earlier in this report, we performed extensive analyses not only of the industry as a whole but of a sample of 42 of the largest life insurance companies. We also conducted numerous interviews with industry representatives, Government officials, academic and actuarial experts, and a variety of other experts on insurance. Our conclusions and recommendations are based on the cumulative results of our work.

We have concluded that there are three specific issues of particular importance that the Congress should consider changing:

- the method by which the reserve deduction is calculated,
- the definition of taxable income, and
- the method of calculating the revaluation of reserves.

There are six additional portions of the Act that merit the consideration of the Congress. Because of time constraints and limited availability of data, we are unable to make specific recommendations for changes in these areas; however, because of the extensive litigation arising from these issues, we feel certain that the Congress will wish to study them further. The three specific changes will be presented first, followed by a brief discussion of the six additional problem areas.

RESERVE DEDUCTION

A substantial portion of a life company's current earnings is put aside in reserves to meet future obligations. The method by which a life company calculates its reserve deduction is crucial in determining its tax liability.

GAO found

Due to the inflationary spiral, changes in product mix, and increasing earnings rates, the current method of calculating the reserve deduction is no longer appropriate. If the gap between the current earnings rate and the assumed rate continues to widen, the reserve deduction will first become larger and then smaller because of the 10 to 1 approximation.

GAO concludes

The portion of the Code specifying the calculation of the reserve deduction should be revised to reflect the changes in the industry and the economic environment over the past 20 years.

GAO recommends

The 10 to 1 adjustment as currently made should be replaced. The following considerations should be taken into account in determining the reserve interest deduction:

- the assumed earnings rate used by the companies in determining reserves,
- the inflationary environment in which the industry has operated in recent years, and
- the practice approved by the Congress in 1959 of allowing life companies to deduct amounts in excess of the interest implied in the assumed rates.

Three basic alternatives to the 10 to 1 rule have been discussed in this report. The alternatives are:

- substituting the interest based on assumed rates for the 10 to 1 adjustment--the free interest method,
- replacing the 10 to 1 rule with a reserve deduction based on a geometric approximation that provides a larger reserve deduction in the current economic environment,
- substituting a 4.5 percent maximum for the average earnings rate with either the 10 to 1 reserve adjustment or with the geometric reserve adjustment.

The Congress should consider selecting one of the above alternatives to replace the 10 to 1 rule for adjusting reserves.

TAXABLE INCOME

The importance of the method used by life companies in determining their taxable income is paramount. This results because any flaws in the method of determining the tax base will directly affect the amounts of revenue that flow from that tax base.

GAO found

In 1959 the Congress decided that life companies should be allowed to defer half of underwriting gains. Prior to LICITA, life companies were not taxed on underwriting gains at all. With the passage of LICITA the Congress adopted the total income approach; however, a large number of insurance companies were small and new companies and therefore the Congress provided a "cushion" in the event of catastrophic losses. The Congress allowed all companies to defer tax on half of underwriting gains. This deferral for all companies cannot be justified today. The industry's operations over the past 20 years reflect a high degree of predictability, and stock life companies have accumulated

a considerable amount of surplus from this one-half deferral. Since experience has proven this cushion is not needed and because many large stock companies have accumulated considerable amounts of surplus in these tax-deferred accounts, the Code should be revised to reflect current realities.

GAC concludes

There should be no automatic deferral of half the excess of gain from operations over taxable investment income for all life insurance companies; however, eliminating this deferral should be gradual and indexed according to the age of the individual company.

By indexing the implementation of the deferral to individual company age, the Congress could include provisions continuing the deferral for new companies that would limit the availability of the cushion to those companies actually requiring this relief. This deferral would be 50 percent for new life companies for 15 years and then phased out for them as well as for the companies already in existence for 15 years or more by decrements of 10 percent per year over a period of the next 5 years. The graduated implementation of this revision would afford adequate time to older companies to adjust their long-range planning to accommodate the revision.

GAO recommends

Sections 802(b) and 815(c)(2)(A) be amended to reflect the current condition of the life insurance industry. Legislative language for phasing out the one-half deferral of underwriting gains is presented in appendix VI of the full report.

RESERVE REVALUATION

The method by which life companies revalue reserves is important because it can significantly reduce their tax liability. This results because in calculating the revalued reserves there is a direct effect on the size of the reserve deduction.

GAO found

The current law provides two methods of revaluing reserves: (1) exact revaluation or (2) approximate revaluation. The latter allows an increase of \$21 per thousand dollars of the amount at risk for permanent insurance plans. Such an allowance is no longer appropriate as it results in unwarranted reserve deductions.

GAO concludes

The \$21 per thousand dollars of amount at risk is greater than what is actuarially needed. A lower allowance is more

appropriate today because of changes in product offerings and reserve methods prevalent in the industry.

GAO recommends

Only \$15 per thousand dollars of the amount at risk be allowed in revaluing reserves for permanent insurance plans. Legislative language amending Section 818(c)(2)(A) is provided in appendix VI of the full report.

RECOMMENDATIONS FOR STUDY OF SIX PROVISIONS

There are six additional provisions of LICITA that we feel merit further consideration by the Congress. The six provisions concern:

- deferred annuities,
- the definition of a life company,
- the definition of life insurance reserves,
- the deduction for investment expenses,
- the definition of assets, and
- the use of modified coinsurance for tax avoidance.

Section 805(e)--deferred annuities

The major consideration with deferred annuity contracts is the appropriateness of the interest deduction that companies writing this business are permitted. These investment type contracts are designed to take advantage of current high interest rates. The favorable tax treatment currently applicable to these contracts merits the consideration of the Congress, which should decide either to specifically legislate the continued favorable treatment of this business or to legislate that favorable tax treatment at the Federal level is unwarranted. When considering this issue, the Congress must once again decide the issue of taxation at the corporate or individual levels.

Section 801(a)--life insurance company defined

The primary problem arising from this provision is the qualification of credit reinsurance companies for taxation under the provisions of LICITA. It does not seem appropriate for a company whose primary source of income is credit A and B reinsurance to be taxed under provisions of the Code intended for life insurance companies. The issue lies in the nature of the company's reserves. Basic changes in the language of this provision are required.

Section 801(b)--life insurance reserves defined

As with the previous section, the issue here is the nature of a company's reserves. The language in this section states that reserves must be "required by law," but there have been differences of opinion as to what this means. If a State insurance department requests a company to set up specific reserves, do these reserves qualify as required by law? It is possible that further research will indicate that the problems with this section can appropriately be resolved administratively.

Section 804(c)(1)--investment expenses

As noted previously, this section of the law mentions investment expenses but does not provide a specific definition. It appears that this section will require amendment if only to provide a definition.

Section 805(b)(4)--assets

It would appear that clarifying the definition of assets would reduce litigation.

Section 820--modified coinsurance

Nobody questions that reinsurance transactions are a necessary and integral part of the insurance business. However, it is a fact that possibilities exist for tax avoidance through unnecessary or questionable reinsurance. Further research is required to determine the extent of any abuses of reinsurance, and we recommend that the Congress examine this section carefully in any evaluation of LICITA.

RESERVE REVALUATIONSECTION 818(c)(2)RESERVE REVALUATION

Two methods of valuing reserves are commonly used by U.S. life insurance companies--the net level premium method and the preliminary term method. The distinction between the two methods stems from the high proportion of expenses associated with an individual policy that occur in the first year of the contract. Agents are ordinarily paid a large commission upon the issuance of a policy and smaller commissions when the policy is renewed in subsequent years. Also, the cost of medically examining a potential policyholder--investigating his or her acceptability as an insurance risk, underwriting expenses, and related clerical costs--add up to large expenses that are payable out of the first year's premium. During the early years of a life contract, the company may actually incur a deficit since expenses and claims plus the allocation to reserves can surpass the initial premiums received.

An older, well-established life company can cover such a deficiency out of retained surplus, but a newer less-established company could easily exhaust its resources or inhibit its potential for future growth. Because of this problem the preliminary term method was developed. The company using this method reduces its initial allocation to reserves. The first year allocation to reserves might average \$2.50 per \$1,000 of the amount of a whole life contract as compared to a net level allocation of \$18-\$19. Thereafter, companies using preliminary term make a larger allocation to reserves than required, if a net level were used, until the two reserves become equal at some future time.

As mentioned earlier, all life insurance companies are permitted an election to revalue reserves computed on the preliminary term basis. The revaluation is permitted primarily to benefit small and new companies that prefer to calculate reserves on the preliminary term basis. They prefer using preliminary term because it produces a larger surplus on company books than if they had used the net level premium basis.

The Code permits this revaluation under two methods:

--exact revaluation, which for some companies might be expensive and difficult to calculate; or

--approximate revaluation, which is accomplished by adding to reserves \$21 per thousand dollars of the amount at risk for permanent policies and \$5 per thousand dollars of the amount at risk for term policies of more than 15 years.

The latter method of revaluation is herein referred to as the "21-5" addition. As stated in chapter 7, we found that while the \$5 per thousand dollars of the amount at risk was appropriate for term insurance of more than 15 years, the \$21 per thousand dollars addition for permanent insurance resulted in unwarranted reserves. The purpose of this appendix is first to document the reasons why the \$21 figure is inappropriate and second to support the appropriateness of the \$5 figure.

RESERVE REVALUATION FOR PERMANENT POLICIES

The following factors influence the amount of the adjustment:

- the mortality table used for reserves,
- the interest rate assumed for reserves,
- the preliminary term method used,
- the particular plan of insurance,
- the policyholder's age and sex at issuance of the policy, and
- the length of time the policy has been in force.

The reserve basis used in this appendix is the 1958 Commissioners Standard Ordinary (CSO) Table, 3.5 percent Commissioners Reserve Valuation Method (CRVM) (continuous functions). In our analysis we used six representative ages at issue for the whole life plan for male lives. For the policy year we used years 1,3,5,7, . . . to 25, plus the years 30, 35, and 40. We combined the figures to get the effect of a model office, using an adaptation of the figures from the Fact Book 1980 to obtain the weighting by age at issue. The weighting by policy year was done by assuming that each policy year after the first would have a weight of 90 percent of the previous year in order to allow for the effect of both lapses and lower levels of sales in prior years.

Despite the fact that graded reserve methods are relatively common since 1959, we used the CRVM. Graded reserve methods likely do not yet represent a majority of the preliminary term business in force and probably not even a majority of the current business issued. Also, the use of a graded method would result in a much lower adjustment figure. For our purposes in arriving at a single figure to be applied in all situations, however, we felt that the CRVM with its larger adjustments was appropriate.

Issue age weights are very important because the differences between net level and preliminary term reserves increase greatly as the issue age increases. In order to arrive at a figure as representative of the industry as possible, we used data from the Fact Book 1980 (p. 14) representing the distribution of the 1978 issued business by age. A distribution of the business in force by issue age would have been preferable, but these figures

were not available. The distribution figures from the Fact Book were adapted to fit the six ages selected for our study.

Table 1 presents the net level mean reserves for each of the six ages, the CRVM mean reserves, and the differences between them.

Table 2 shows the amount at risk for each issue age and policy year combinations. This amount is obtained by subtracting the CRVM reserve from \$1,000. The differences between the two types of reserve (shown in table 1) are next divided by the amount at risk figures (on a unit basis) to put them on an amount at risk basis.

Table 3 shows the factors used to weight, first by policy year and then by issue age, the reserve differences presented in table 2. This table also shows a percentage distribution of the figures needed to obtain the policy year weights.

Table 4 takes the amount at risk basis reserve differences and multiplies them by the policy year weights (shown in column 1, which is reproduced from table 3). These products are shown for each policy year and issue age combination and are summed by issue age. The issue age weights from table 3 are then applied to derive a single weighted figure for each issue age. The sum of the six issue age figures represents the appropriate adjustment figure per \$1,000 amount at risk based on this methodology and assumptions.

In our recommendations, we have put forth \$15 per thousand dollars of the amount at risk as a more reasonable method of revaluing reserves using an approximate method. The \$15 figure was selected rather than the precise \$14.50 derived in our calculations because it was felt to be a reasonable approximation, considering that our calculations are based on assumptions that will usually vary from company to company.

RESERVE REVALUATION FOR TERM POLICIES

The approximate revaluation for term policies of more than 15 years is currently \$5 per \$1,000 of the amount at risk. Studies similar to those outlined for whole life policies were done for term plans. The CRVM reserve basis was used as representing the preliminary term, and differences between CRVM and net level mean reserves were calculated. The ages at issue used were 15, 25, 35, 45, and 55. The selection of a plan of term insurance to be used was more difficult than in the case of the whole life studies. This difficulty arises because term plans greater than 15 years are not issued now to the same extent that they were in 1959 when the Act was passed.

Table 1

Differences Between Net Level & CRVM Mean Reserves Per \$1000
1958 CSO 3 1/2% Continuous Functions
Whole Life--Male
 (All amounts below are dollars)

Year	Age at issue--15			Age at issue--25			Age at issue--35		
	Net Level	CRVM	Diff.	Net Level	CRVM	Diff.	Net Level	CRVM	Diff.
1	6.72	.85	5.87	9.59	1.15	8.44	14.42	1.58	12.84
3	19.22	13.42	5.80	27.78	19.50	8.28	41.99	29.51	12.48
5	32.36	26.64	5.72	47.19	39.08	8.11	70.95	58.86	12.09
7	46.27	40.63	5.64	67.88	59.95	7.93	101.17	89.48	11.69
9	61.09	55.54	5.55	89.90	82.16	7.74	132.59	121.31	11.28
11	76.92	71.47	5.45	113.31	105.77	7.54	165.17	154.33	10.84
13	93.85	88.50	5.35	138.07	130.74	7.33	198.85	188.45	10.40
15	111.93	106.68	5.25	164.08	156.97	7.11	233.50	223.56	9.94
17	131.18	126.05	5.13	191.21	184.34	6.87	268.95	259.48	9.47
19	151.68	146.67	5.01	219.42	212.79	6.63	305.09	296.09	9.00
21	173.47	168.60	4.87	248.68	242.31	6.37	341.77	333.26	8.51
23	196.51	191.78	4.73	278.92	272.81	6.11	378.84	370.83	8.01
25	220.73	216.13	4.60	310.03	304.19	5.84	416.07	408.56	7.51
30	285.74	281.54	4.20	390.72	385.59	5.13	508.40	502.11	6.29
35	356.58	352.80	3.78	473.96	469.55	4.41	596.19	591.05	5.14
40	431.69	428.37	3.32	556.87	553.17	3.70	675.52	671.44	4.08

Source: Reserve tables, Society of Actuaries.

<u>Age at issue--45</u>			<u>Age at issue--55</u>			<u>Age at issue--65</u>		
<u>Net</u>			<u>Net</u>			<u>Net</u>		
<u>Level</u>	<u>CRVM</u>	<u>Diff.</u>	<u>Level</u>	<u>CRVM</u>	<u>Diff.</u>	<u>Level</u>	<u>CRVM</u>	<u>Diff.</u>
21.76	3.22	18.54	33.22	7.52	25.70	51.67	17.97	33.70
61.35	43.57	17.78	88.13	63.90	24.23	124.07	92.99	31.08
102.07	85.08	16.99	143.28	120.55	22.73	193.83	165.27	28.56
143.74	127.56	16.18	193.34	177.10	21.24	260.45	234.30	26.15
186.21	170.84	15.37	252.97	233.21	19.76	324.40	300.56	23.84
229.33	214.79	14.54	306.83	288.52	18.31	386.52	364.93	21.59
272.89	259.20	13.69	359.40	342.52	16.88	446.72	427.31	19.41
316.66	303.81	12.85	410.04	394.53	15.51	503.76	486.42	17.34
360.55	348.34	12.01	458.41	444.22	14.19	556.53	541.10	15.43
403.71	392.54	11.17	504.85	491.90	12.95	604.99	591.31	13.68
446.44	436.10	10.34	549.96	538.22	11.73	650.00	637.95	12.05
488.16	478.61	9.55	593.66	583.11	10.55	692.70	682.19	10.51
528.35	519.58	8.77	635.07	625.65	9.42	734.45	725.45	9.00
621.59	614.62	6.97	725.17	718.19	6.98	845.01	840.01	5.00
706.92	701.60	5.32	802.57	797.68	4.89	1007.98	1008.88	-0.90
778.42	774.47	3.95	882.83	880.12	2.71			

Table 2
Adjustment of Differences to
Amount at Risk Basis

Policy Year	Age 15		Age 25		Age 35		Age 45		Age 55		Age 65	
	Col. 1a/	Col. 2b/	Col. 1a/	Col. 2b/	Col. 1a/	Col. 2b/	Col. 1a/	Col. 2b/	Col. 1a/	Col. 2b/	Col. 1a/	Col. 2b/
1	999.15	5.87	998.85	8.45	998.42	12.86	996.78	18.60	992.48	25.89	982.03	34.32
3	986.58	5.88	980.50	8.44	970.49	12.86	956.43	18.59	936.10	25.888	907.01	34.27
5	973.36	5.88	960.92	8.44	941.14	12.85	914.92	18.57	879.45	25.85	834.73	34.21
7	959.37	5.88	940.05	8.44	910.52	12.84	872.44	18.55	822.90	25.81	765.70	34.15
9	944.46	5.88	917.84	8.43	878.69	12.84	829.16	18.54	766.79	25.77	699.44	34.08
11	928.53	5.87	894.23	8.43	845.67	12.82	785.21	18.52	711.48	25.74	635.07	34.00
13	911.50	5.87	869.26	8.43	811.55	12.81	740.80	18.48	657.48	25.67	572.69	33.89
15	893.32	5.87	843.03	8.43	776.44	12.80	696.19	18.46	605.47	25.62	513.58	33.76
17	873.95	5.87	815.66	8.42	740.52	12.79	651.66	18.43	555.78	25.53	458.90	33.62
19	853.33	5.87	787.21	8.42	703.91	12.79	607.46	18.39	508.10	25.49	408.69	33.47
21	831.40	5.86	757.69	8.41	666.74	12.76	563.90	18.34	461.78	25.40	362.05	33.28
23	808.22	5.85	727.19	8.40	629.17	12.73	521.39	18.32	416.89	25.31	317.81	33.07
25	783.87	5.87	695.81	8.39	591.44	12.70	480.42	18.25	374.35	25.16	274.55	32.78
30	718.46	5.85	614.41	8.35	497.89	12.63	385.38	18.09	281.81	24.77	159.99	31.25
35	647.20	5.84	530.45	8.31	408.95	12.57	298.40	17.83	202.32	24.17		
40	571.63	5.81	446.83	8.28	328.56	12.42	225.53	17.51	119.88	22.61		

a/Col. 1 shows amount at risk per \$1000.

b/Col. 2 shows the differences in reserves per 1000 divided by the amount at risk per \$1.

Table 3

Weights Used in Calculating Approximate
Method Preliminary Term Adjustment

<u>Policy year</u>		
<u>Policy</u>	<u>Business in force</u>	<u>% Dist</u>
<u>Year n</u>	<u>Adjustment</u> $.90^{n-1}$	
1	1.0000 a/	.1995
3	.8100	.1616
5	.6561	.1308
7	.5314	.1060
9	.4304	.0858
11	.3487	.0695
13	.2824	.0563
15	.2288	.0456
17	.1853	.0370
19	.1501	.0299
21	.1216	.0243
23	.0985	.0196
25	.0798	.0159
30	.0471	.0094
35	.0278	.0055
40	<u>.0164</u>	<u>.0033</u>
	5.0144	1.0000

<u>Issue age</u>	
<u>Issue Age</u>	<u>%Weighting</u>
15	5%
25	30%
35	32%
45	18%
55	10%
65	<u>5%</u>
	100%

a/Assumes lapses at end of the year.

Source: Adapted from Fact Book 1980, p. 14.

Table 4
Calculation of Weighted Adjustment
per \$1,000 Amount at Risk

<u>Policy</u> <u>Year</u>	<u>% Dist.</u> <u>by Pol.</u> <u>Year</u>	<u>15</u> <u>%Dist. x</u>	<u>25</u> <u>Difference</u>	<u>35</u> <u>in reserves</u>	<u>45</u> <u>per</u>	<u>55</u> <u>\$1000 amt.</u>	<u>65</u> <u>at risk</u>
1	.1995	\$1.17	\$1.69	\$2.57	\$3.71	\$5.17	\$6.85
3	.1616	.95	1.36	2.08	3.00	4.18	5.53
5	.1308	.77	1.10	1.68	2.43	3.38	4.47
7	.1060	.62	.89	1.36	1.97	2.74	3.62
9	.0858	.50	.72	1.10	1.59	2.21	2.92
11	.0695	.41	.59	.89	1.29	1.79	2.36
13	.0563	.33	.47	.72	1.04	1.45	1.91
15	.0456	.27	.38	.58	.84	1.17	1.54
17	.0370	.22	.31	.47	.68	.94	1.24
19	.0299	.18	.25	.38	.55	.76	1.00
21	.0243	.14	.20	.31	.45	.62	.81
23	.0196	.11	.16	.25	.36	.50	.65
25	.0159	.09	.13	.20	.29	.40	.52
30	.0094	.05	.08	.12	.17	.23	.29
35	.0055	.03	.05	.07	.10	.13	---
40	.0033	.02	.04	.04	.06	.07	---
TOTAL ALL YEARS		\$5.86	\$8.42	\$12.82	\$18.53	\$25.74	\$33.71
APPLYING ISSUE AGE WEIGHTS		X .05	X .30	X .32	X .18	X .10	X .05
		\$.29	\$ 2.52	\$ 4.10	\$ 3.34	\$ 2.57	\$ 1.69
TOTAL ALL ISSUE AGES AND POLICY YEARS		-----\$14.51					

Term plans currently being issued for a period longer than 15 years are almost always of the decreasing term variety usually used for mortgage protection. The reserves for these plans vary by the actual schedule of amounts of insurance by policy year duration, among other things. These schedules of amounts of insurance by policy year duration vary from company to company, and no published tables of reserves were available. Because of this, we used for our test the longest term plan available to us, i.e., the level term to age 65 plan. For age 55 we used 20 years since the term to 65 at this age is only a 10 year plan and therefore not eligible for the \$5 addition.

Because term plans are subject to an additional source of termination by conversion and since term plans normally have higher rates of termination than permanent plans, we assumed that the weighting for each year after the first would be 85 percent of the previous year (as compared with the 90 percent we used for testing the \$21 adjustment for permanent plans).

The tables (5, 6, 7, and 8) calculated using the assumptions just outlined and the methodology used for the tables for permanent insurance shown in this appendix indicate that a figure of approximately \$5.00 would be appropriate. We concluded that the \$5 adjustment should not be changed.

Table 5

Differences Between Net Level & CRVM Mean Reserves Per \$1000
1958 CSO 3 1/2% - Continuous Functions
Male-Term to 65 (20 Y.T. For Age 55)

Year	Age at issue--15			Age at issue--25			Age at issue--35		
	N.L.	CRVM	NL-CRVM	N.L.	CRVM	NL-CRVM	N.L.	CRVM	NL-CRVM
1	3.46	.77	2.69	4.68	1.03	3.65	6.85	1.36	5.49
3	9.09	6.45	2.64	12.51	8.96	3.55	18.44	13.19	5.29
5	14.84	12.25	2.59	20.78	17.33	3.45	30.17	25.18	4.99
7	20.81	18.27	2.54	29.48	26.14	3.34	41.76	37.04	4.72
9	27.08	24.59	2.49	38.58	35.37	3.21	52.99	48.56	4.43
11	33.72	31.30	2.42	48.08	44.99	3.09	63.63	59.52	4.11
13	40.76	38.40	2.36	57.83	54.88	2.95	73.37	69.57	3.80
15	48.19	45.90	2.29	67.60	64.80	2.80	81.74	78.28	3.46
17	55.98	53.77	2.21	77.13	74.48	2.65	88.18	85.09	3.09
19	64.13	62.00	2.13	86.18	83.70	2.48	92.05	89.34	2.71
21	72.59	70.55	2.04	94.52	92.21	2.31	92.52	90.23	2.29
23	81.24	79.29	1.95	101.82	99.70	2.12	88.55	86.70	1.85
25	89.85	88.00	1.85	107.62	105.69	1.93	78.70	77.31	1.49
31	112.88	111.35	1.53	109.74	108.46	1.28			
37	125.13	123.98	1.15	67.63	67.14	.49			
43	110.79	110.10	.69						
Year	Age at issue--45			Age at issue--55					
	N.L.	CVRM	NL-CRVM	N.L.	CVRM	NL-CRVM			
1	9.70	2.81	6.89	22.28	6.98	15.30			
3	23.68	17.33	6.35	53.70	39.65	14.05			
5	36.54	30.76	5.78	82.70	69.94	12.76			
7	47.72	42.56	5.16	108.26	96.85	11.41			
9	56.62	52.09	4.53	129.10	119.09	10.01			
11	62.45	58.61	3.84	143.49	134.94	8.55			
13	64.21	61.10	3.11	148.91	141.93	6.98			
15	60.54	58.22	2.32	141.72	136.43	5.29			
17	49.64	48.18	1.46	117.13	113.73	3.40			
19	29.16	28.65	.51	69.20	67.98	1.22			

Table 6

Adjustment of Differences in Reserves
to Amount at Risk Basis

Policy Year	Age 15		Age 25		Age 35		Age 45		Age 55	
	Col. 1	Col. 2	Col. 1	Col. 2	Col. 1	Col. 2	Col. 1	Col. 2	Col. 1	Col. 2
1	.99923	2.69	.99897	3.65	.99864	5.50	.99719	6.91	.99302	15.41
3	.99355	2.66	.99104	3.58	.98681	5.36	.98267	6.46	.96305	14.59
5	.98775	2.62	.98267	3.51	.97482	5.12	.96924	5.96	.93006	13.72
7	.98173	2.59	.97386	3.43	.96296	4.90	.95744	5.39	.90315	12.63
9	.97541	2.55	.96463	3.33	.95144	4.66	.94791	4.78	.88091	11.36
11	.96870	2.50	.95501	3.24	.94048	4.37	.94139	4.08	.86506	9.88
13	.96160	2.45	.94512	3.12	.93093	4.08	.93890	3.31	.85807	8.13
15	.95410	2.40	.93520	2.99	.92172	3.75	.94178	2.46	.86357	6.13
17	.94623	2.34	.92552	2.86	.91491	3.38	.95182	1.53	.88627	3.84
19	.93800	2.27	.91630	2.71	.91066	2.98	.97135	.53	.93202	1.31
21	.92945	2.19	.90779	2.54	.90977	2.52				
23	.92071	2.12	.90030	2.35	.91330	2.03				
25	.91200	2.03	.89431	2.16	.92269	1.61				
31	.88865	1.72	.89154	1.44						
37	.87602	1.31	.93286	.53						
43	.88990	.78								

Table 7

Weightings Used in Calculating Approximate
Preliminary Term Adjustment
 (For Term Plans Greater Than 15 Years)

<u>Policy</u>	<u>Policy year</u>	
	<u>Business in force</u>	
<u>Year n</u>	<u>Adjustment</u>	<u>.85ⁿ</u> <u>% Dist.</u>
1	1.0000	.2808
3	.7225	.2029
5	.5220	.1466
7	.3771	.1060
9	.2725	.0765
11	.1969	.0553
13	.1422	.0399
15	.1028	.0289
17	.0743	.0209
19	.0536	.0150
21	.0388	.0109
23	.0280	.0074
25	.0202	.0057
31	.0076	.0021
37	.0029	.0008
43	.0011	.0003
	<hr/>	<hr/>
	3.5625	1.0000

Issue age

<u>Age</u>	<u>%weighting</u>
15	.05
25	.20
35	.30
45	.40
55	.05

Table 8

Calculation of Weighted Adjustment Factors
per \$1,000 Amount at Risk

<u>Policy Year</u>	<u>Percent Distribution By Policy Year</u>	<u>15</u> <u>Percent</u>	<u>25</u> <u>Distribution</u>	<u>35</u> <u>Multiplied by</u>	<u>45</u> <u>Difference in Reserves</u>	<u>55</u> <u>per \$1,000 Amount at Risk</u>
1	.2808	\$.76	\$1.02	\$1.54	\$1.94	\$4.33
3	.2029	.54	.73	1.09	1.31	2.96
5	.1466	.38	.51	.75	.87	2.01
7	.1060	.27	.36	.52	.57	1.34
9	.0765	.20	.25	.36	.37	.87
11	.0553	.14	.18	.24	.23	.55
13	.0399	.10	.12	.16	.13	.32
15	.0289	.07	.09	.11	.07	.18
17	.0209	.05	.06	.07	.03	.08
19	.0150	.03	.04	.04	.01	.02
21	.0109	.02	.03	.03	-	-
23	.0074	.02	.02	.02	-	-
25	.0057	.01	.01	.01	-	-
31	.0021	-	-	-	-	-
37	.0008	-	-	-	-	-
43	.0003	-	-	-	-	-
Total of all years		\$2.59	\$3.42	\$4.94	\$5.53	\$12.66
Applying issue age Weightings		x .05	x .20	x .30	x .40	x .05
		\$.13	\$.68	\$1.48	\$2.21	\$.63

TOTAL OF ALL ISSUE AGES AND POLICY YEARS-----\$5.13

