

# PROCEEDINGS

MAY 16, 17, 18, 19, 1971

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## FEDERAL INCOME TAXES

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One of the most important overall financial considerations for any company is Federal Income Taxes. For a property-liability insurance company, taxes are both important and, to a large extent, controllable. Whereas the income of most organizations is fully taxable, insurance companies' income is largely investment income which can be either taxable or tax exempt. This paper explores the subject of Federal Income Taxes and it illustrates how net income can be maximized by minimizing Federal Income Taxes. Because mutuals and life insurance companies fall under different sections of the tax code, they will not be included in this paper.

### TAX LAW

The provisions of the Federal Tax Law that apply to insurance companies are essentially those that apply to most corporations. Specifically,

1. *Dividend Credit* — The investment income received from other non-affiliated corporations in the form of dividends is 85% tax free.<sup>1</sup> In

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<sup>1</sup> H. Sauvain, *Investment Management*, (Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1967) pg. 233.

"... The purpose of this exclusion is to minimize the triple taxation of corporate earnings that occurs when one company owns stock of another. The triple taxation operates in this way: (a) one company reports earnings and pays the corporate income tax on these earnings; then it pays dividends from the taxed earnings to a second company that owns its stock; the dividends received are part of the earnings of the second company; (b) the second company pays the corporate income tax on its earnings and from the balance of earnings it pays dividends to its stockholders; and (c) the stockholders pay the personal income tax on the dividends. The 85% dividend exclusion of dividends from taxable income of corporations greatly reduces the second application of the tax."

other words, only 15% of dividends is subject to Federal Income Tax. There are a few exceptions to this 85% credit; for example, dividends from certain preferred stocks of public utilities are only allowed a deduction of approximately 60%, but most dividends are eligible for the 85% credit. Dividends from subsidiaries usually fall under another section of the law which exempts inter-corporate dividends from all taxes. The dividend credit is subject to certain limitations which will occasionally cause a loss of part of the dividend credit, but this is a relatively infrequent event and will be discussed later.

2. *Tax Exempt Interest* — The interest received from bonds issued by any state or local government is fully tax exempt. These tax-free bonds are often referred to as municipals or “munis.”
3. *Tax-Loss Carry-Over* — When no tax liability exists and total taxable income is negative, a Tax-Loss Carry-Over in the amount of the negative taxable income is established. This carry-over lasts a maximum of eight years — three prior and five succeeding — and must be applied to the earliest year first. A tax refund is generated if the Tax-Loss Carry-Over reduces the prior year’s previously computed income tax. Any excess or unused Tax-Loss Carry-Over is then carried to the following year which is also recalculated in a similar fashion.

A realized capital loss from the selling of investments which is not offset by realized capital gains in a particular year may also be used over an eight year period in the same manner as described above, but only to offset realized capital gains. However, the amount which can be carried back is limited to an amount which does not cause or increase a net operating loss in the carryback year.

4. *Alternate Tax Calculation* — The alternate tax calculation for taxing gains from the sale of assets owned more than six months at a rate less than that applied to other income is also available to all companies. Most companies benefit from this provision when selling buildings and other property while insurance companies benefit when realizing capital gains by selling stocks and bonds.
5. *Tax Rates* — The basic corporate tax rate is effectively 48% and has been for several years. This actually consists of a 22% tax, and a 26% surtax on all taxable income in excess of \$25,000. The capital gains tax rate as used in the alternate tax calculations was 25% prior to 1-1-70, was 28% for 1970 and increased to 30% for 1971 and

thereafter. The tax surcharge of 1969 and 1970 was applied to the total tax liability, thus effectively increasing both the basic corporate tax rate and the capital gains tax rate.

Sections 831-832 of the Federal Tax Code relate specifically to Stock Fire and Casualty Insurance Companies. Net earned premium is the revenue base for underwriting operations, with underwriting disbursements including incurred losses (including IBNR), incurred expenses (except that capital items such as automobiles, furniture, fixtures, etc., that are charged directly to expenses in the annual statement must be depreciated over their useful life span for tax purposes), and declared policyholders dividends (not incurred). The primary benefit to insurance companies arising from these sections of the tax law is that expenses (primarily commissions) are charged against income prior to the premium being counted as income. This in effect defers income without deferring the corresponding direct expenses and can amount to a substantial tax benefit, especially for rapidly growing insurance companies. Working in the opposite direction is the handling of policyholders dividends, which are allowed as a tax deduction only when declared.

### *Determination of Taxes*

Federal income taxes must be paid on total income which is the sum of ordinary taxable income and realized capital gains.

The U. S. Corporation Income Tax Return, form 1120, accumulates premiums earned, dividends received, taxable interest income and realized capital gains as total income. Deductions include incurred losses, declared policyholder dividends, salaries, taxes, fees, etc. Gross taxable income is the difference between total income and total deductions. The dividend credit is a special deduction of 85% of dividends received *subject to a maximum of 85% of the gross taxable income* except that this limitation does not apply to a year in which a net operating loss occurs. The net taxable income is the gross taxable income less (1) the dividend credit, and (2) any applicable tax-loss carry-over from prior years.

The federal income tax is the lesser of (1) the net taxable income times the normal tax rate (48%), or (2) the ordinary taxable income (net taxable income less realized capital gains) times the normal tax rate (but not less than zero) plus the realized capital gains times the capital gains tax rate (30%). Step (2) above is the alternate tax calculation and provides

for taxing capital gains at a lesser rate. However, whenever ordinary taxable income is negative and capital gains are positive, the net effect of the law is to tax capital gains at a rate between thirty and forty-eight percent. The effective tax rate depends on the relative magnitude of the ordinary taxable income and the capital gains.

When the detail required for the precise calculation is not available, a reasonable approximation to gross taxable income can be achieved by adding (1) statutory underwriting profit, (2) dividends received, (3) taxable interest, and (4) realized capital gains. A number of refinements could be made but they are generally of a minor nature.<sup>2</sup>

An example may help to clarify the calculation of federal taxes. The following assumes tax rates of a) 48% on ordinary income, and b) 30% on realized capital gains, and the following facts about the ABC Insurance Company:

Statutory Underwriting Profit	\$-10,000,000
Taxable Investment Income	10,000,000
Tax Exempt Investment Income	10,000,000
Dividends Received	10,000,000
Realized Capital Gains	5,000,000
Net Income Before Taxes	<u>\$ 25,000,000</u>

In this situation, ABC has gross taxable income of \$15 million, a dividend credit of \$8.5 million, net taxable income of \$6.5 million, and ordinary taxable income of \$1.5 million. The actual tax calculation, including the alternate calculation is shown on Exhibit 1 with the tax liability being \$2,220,000.

To illustrate another point, assume the underwriting loss is \$15 million. Then the gross taxable income will be \$10 million, the dividend credit \$8.5 million and the net taxable income \$1.5 million. Now the standard calculation indicates a tax of \$720,000 (1.5 million dollars @ 48%). The alternate calculation indicates a tax of \$1,500,000 and this is greater than the standard formula. Thus the tax liability is \$720,000 and the capital gain has been effectively taxed at 48% because (a) the ordinary taxable income loss of \$3.5 million (which if there were no

<sup>2</sup> For a detail listing of many of these adjustments see: W. R. Hammond (ed.), *Insurance Accounting—Fire & Casualty*, (Chilton Company, Philadelphia, 1965), pp. 303-306.

## Exhibit I

## CALCULATION OF FEDERAL INCOME TAX

## Standard Calculation:

Net Income before Taxes	\$25,000,000
Less: Tax-Exempt Income	10,000,000
85% of Dividends	8,500,000
Net Taxable Income	<u>\$ 6,500,000</u>
Tax @ 48%	\$ 3,120,000

## Alternate Calculation:

Net Income	\$25,000,000
Less: Tax-Exempt Income	10,000,000
85% of Dividends	8,500,000
Capital Gains	5,000,000
Ordinary Taxable Income	<u>\$ 1,500,000</u>
Tax @ 48%	\$ 720,000
Capital Gains Tax	\$ 1,500,000
\$5 million @ 30%	<u>          </u>
Total Tax	\$ 2,220,000

The tax liability is the lesser of the above two taxes, \$2,220,000.

capital gains would have been available as a Tax-Loss Carry-Over to offset ordinary income taxed at 48%) has been used to offset \$3.5 million of realized capital gains, and (b) the remaining \$1.5 million realized capital gain has been taxed at 48% by reason of being included in the Net Taxable Income item.

Any analysis of taxes is hampered by the existence of several interacting variables. Specifically, the major variables are (1) statutory underwriting profit, (2) the split between taxable, tax-exempt and dividend investment income, (3) realized capital gains, and (4) the interest rates on different assets. One of the easier points to illustrate is the effect of varying the investment portfolio. Returning to the ABC Company, if taxable securities are yielding 8% and tax-exempts 6%, then the investment portfolio must consist of \$125 million of taxable bonds and \$166.7 million of tax-exempt bonds. Selling \$10 million of taxable bonds and buying \$10 million of tax-exempt bonds would increase the tax-exempt income by \$600,000 and decrease the taxable income by \$800,000, thus reducing income by \$200,000. However, the federal income tax decreases by \$384,000 so that net after tax income increases by \$184,000. Exhibit II shows the full range of possible investment situations for the Company by increments of \$10 million of assets. This information has been graphed on Exhibit III and will be called the Net Income Curve for the ABC Company.

## Exhibit II

## THE ABC COMPANY

Taxable Interest	Tax-Exempt Interest	Income Taxes	Net Income
\$ 400,000	\$17,200,000	\$ 0	\$22,600,000
1,200,000	16,600,000	0	22,800,000
2,000,000	16,000,000	0	23,000,000
2,800,000	15,400,000	0	23,200,000
3,600,000	14,800,000	619,000	22,780,000
4,400,000	14,200,000	676,000	22,923,000
5,200,000	13,600,000	816,000	22,984,000
6,000,000	13,000,000	1,200,000	22,800,000
6,800,000	12,400,000	1,500,000	22,700,000
7,600,000	11,800,000	1,500,000	22,900,000
8,400,000	11,200,000	1,500,000	23,100,000
9,200,000	10,600,000	1,836,000	22,964,000
10,000,000	10,000,000	2,220,000	22,780,000
10,800,000	9,400,000	2,604,000	22,596,000
11,600,000	8,800,000	2,988,000	22,412,000
12,400,000	8,200,000	3,372,000	22,228,000
13,200,000	7,600,000	3,756,000	22,044,000
14,000,000	7,000,000	4,140,000	21,860,000
14,800,000	6,400,000	4,524,000	21,676,000
15,600,000	5,800,000	4,908,000	21,492,000
16,400,000	5,200,000	5,292,000	21,308,000
17,200,000	4,600,000	5,676,000	21,124,000
18,000,000	4,000,000	6,060,000	20,940,000
18,800,000	3,400,000	6,444,000	20,756,000
19,600,000	2,800,000	6,828,000	20,572,000
20,400,000	2,200,000	7,212,000	20,388,000
21,200,000	1,600,000	7,596,000	20,204,000
22,000,000	1,000,000	7,980,000	20,020,000
22,800,000	400,000	8,364,000	19,836,000

Assumptions: (also on Exhibits IV, V, VI, VII, except as noted)

1. Taxable bond interest rate of 8%.
2. Tax-Exempt bond interest rate of 6%.
3. 1971 tax rates, i.e., ordinary income 48%, capital gains 30%.
4. Statutory underwriting profit of \$-10,000,000.
5. Dividends received of \$10,000,000.
6. Realized Capital Gains of \$5,000,000.

Reviewing the Net Income Curve can help one understand the different aspects of the tax law. Point G represents the ABC Company under our initial assumption of \$10 million of taxable investment income and \$10 million of tax-exempt investment income, resulting in net income of \$22.8 million after taxes. The other points on the curve represent possible situations for ABC resulting from different distributions of the bond portfolio. Explaining the inflection points on the curve should help to clarify the relationship of the Net Income Curve to the tax law:

*Point A* — This represents zero taxable investment income. In other words, all funds allocated to buying bonds are invested in tax-exempt securities.

*Point B* — This point is on one side of the only discontinuity of the Net Income Curve. Throughout segment AB the company has negative taxable income. It is assumed that there is no tax refund available from earlier years. If this assumption is invalid, the slope of AB will change but point B will remain fixed. As taxable income increases beyond B, part of the dividend credit will be lost with a corresponding increase in tax liability and decrease in net income.

*Point C* — This represents the minimum dividend credit possible and segment CD results from reinstating the dividend credit.

*Point D* — This identifies the point at which the full dividend credit is again received.

*Point E* — This point identifies the situation where the tax computed from the alternate calculation is identical to the basic tax from the standard formula. The net effect is that the operating loss is being exactly offset by realized capital gains so that the effective capital gains tax rate is 48%. Up to this point all taxes have been obtained from the standard tax calculation formula.

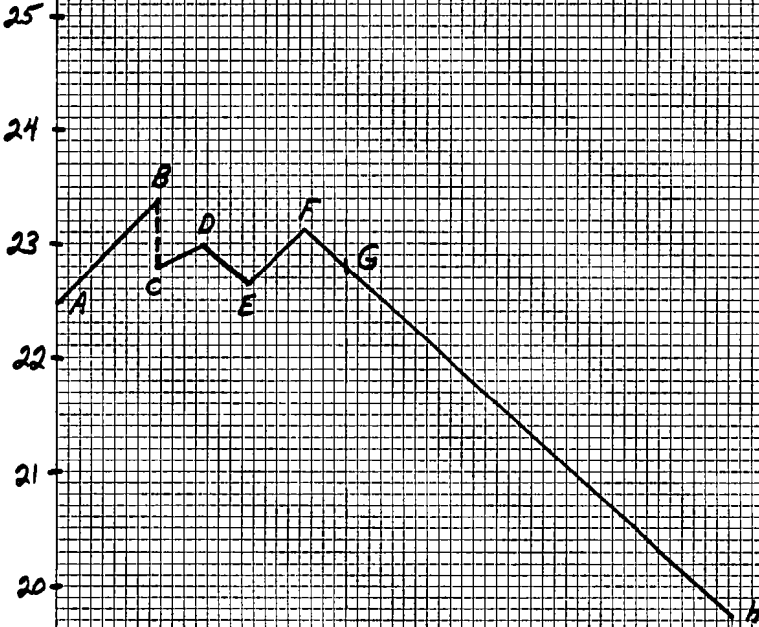
*Point F* — This is the point at which ordinary taxable income equals zero. The segment EF has negative ordinary income insufficient to offset the capital gains with the resulting tax being the capital gains tax of 30%. The segment FH represents taxes of 48% of ordinary income and 30% of capital gains. Segment FH declines because additional investment income is taxed at 48% bringing the assumed 8% taxable bond yield to an after-tax equivalent of 4.16% which is less than the tax-exempt 6% yield.



EXHIBIT III

# NET INCOME CURVE

NET INCOME  
(millions of dollars)



DIFFERENT MIXES OF THE INVESTMENT  
PORTFOLIO WILL YIELD ?

INTEREST  
(millions of dollars)

0	2	4	6	8	10	12	14	16	18	20	22	22.3	TAXABLE	TAX-EXEMPT
175	16	14.5	13	11.5	10	8.5	7	5.5	4	2.5	1	0		

*Point G* — Identifies the current position of the ABC Company.

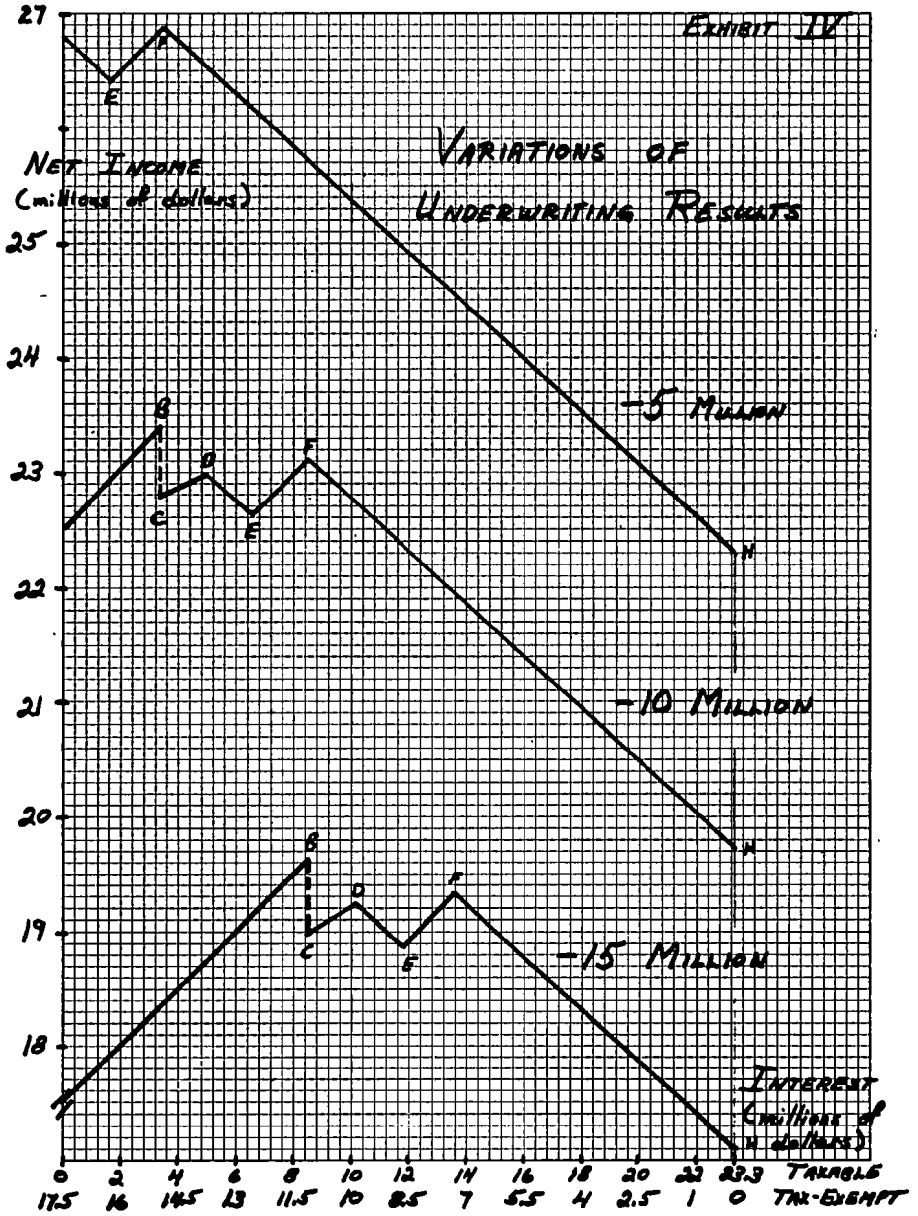
*Point H* — Represents the bond portfolio with no tax-exempt investments.

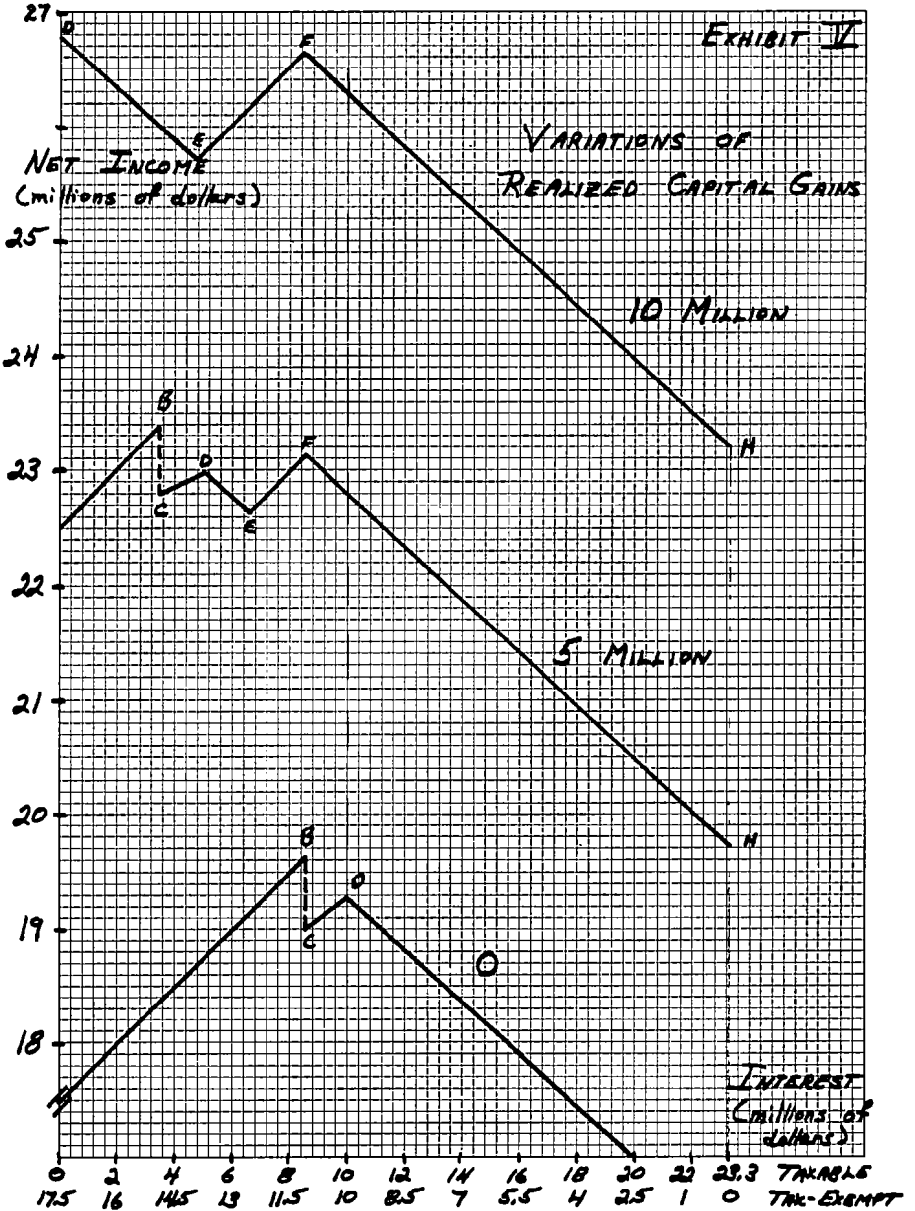
Thus far we have discussed the calculation of the federal tax liability and have explored the impact of changes in the bond portfolio by using the Net Income Curve. We will now investigate the impact of changes in the other variables again utilizing the Net Income Curve.

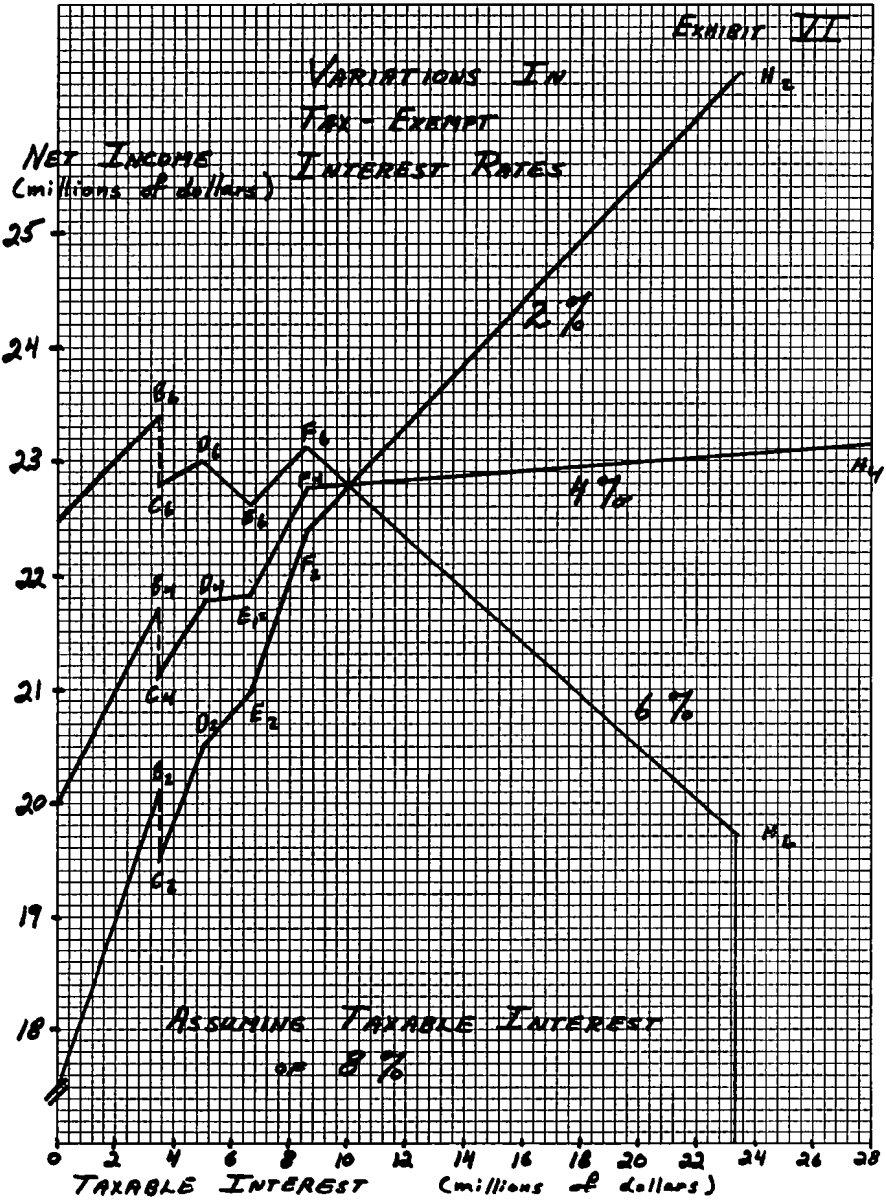
Exhibit IV illustrates the effect of different underwriting results. As expected, reducing the underwriting loss increases net income and vice versa as shown by the vertical shift of the curve. However, the entire Net Income Curve is also shifted horizontally by changes in the underwriting loss. Thus the current situation with taxable investment income of \$10 million is on line segment FH for underwriting losses of \$5 and \$10 million, but when the underwriting loss is \$15 million the Net Income Curve is intercepted at Point D. In other words, the additional \$5 million underwriting loss substantially changes the federal income tax calculation. It is important to note that slopes of all the line segments and the relative position of points B, C, D, E and F remain unaffected by changes in the underwriting results.

Exhibit V illustrates the effect of various capital gains situations. Again as expected, increasing capital gains increases net income and vice versa. However, the structure of the curve changes substantially. Not only is the graph shifted horizontally as with changes in underwriting results, but the length of segments DE and EF is also changed. This occurs because a larger capital gain alters the relative importance of the alternate tax calculation and forces a larger portion of any operating tax loss to be offset against capital gains.

Another important variable is the relative interest rates of taxable and tax-exempt bonds. Exhibit VI illustrates the substantial impact of variations in the tax-exempt interest rate for a fixed taxable investment income yield of 8%. As seen on the graph, Points A through H are unchanged as respects their horizontal separation, but the net income associated with these points changes drastically as does the slope of all the line segments.







## SUMMARY

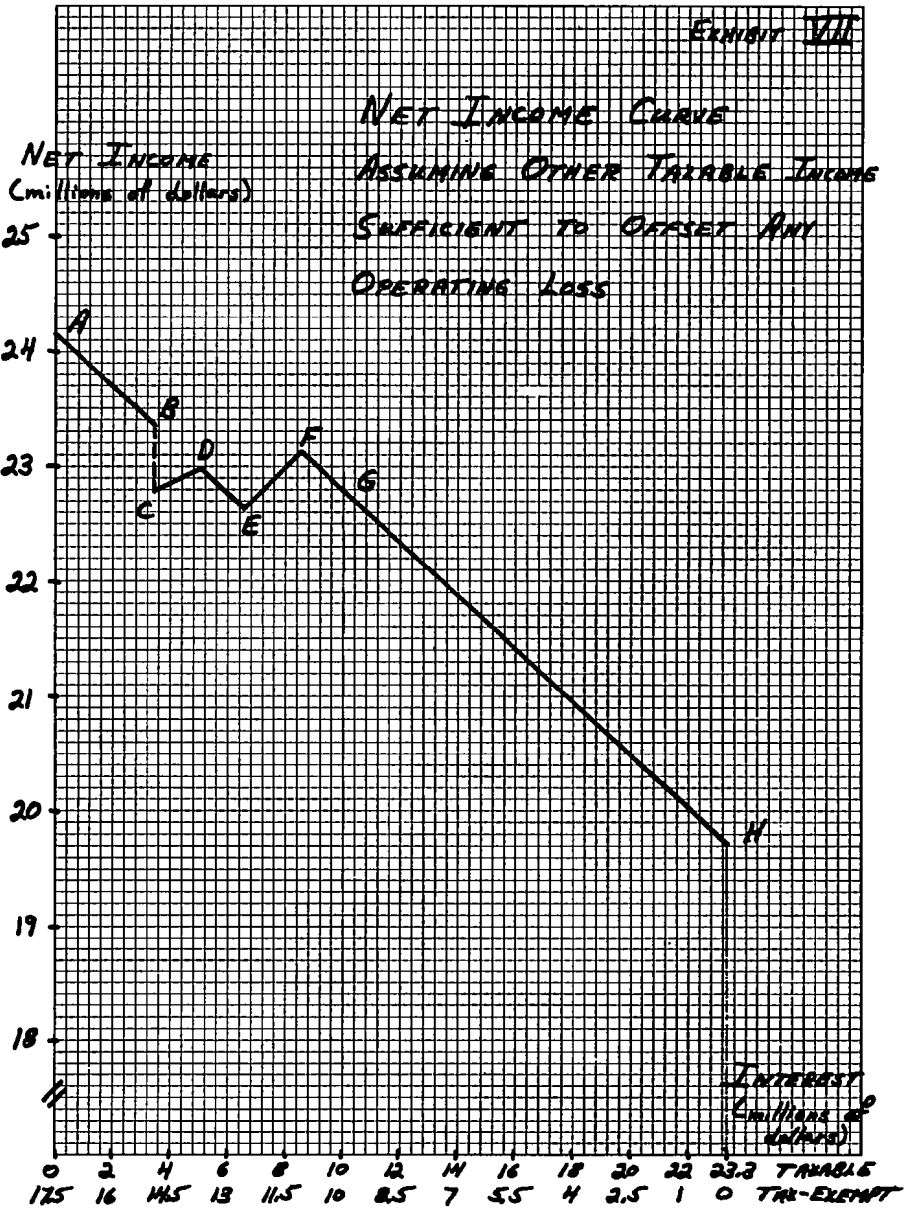
This paper has investigated several aspects of federal income taxes including some of the unusual characteristics of the tax law. Several situations resulting in inefficiencies have been noted and the potential for maximizing Net Income has been discussed. Many other factors and problems influence the inter-relationship of taxes and income for an insurance company including:

1. Federal income taxes are based on statutory underwriting results which in effect charge all expenses, including commissions, against earned premium. Consequently, all other things being equal, a company will pay less taxes when it grows faster.
2. Unfortunately, techniques to project underwriting results years in advance have not been perfected. Lacking the ability to accurately foresee results, general investment policies can be pursued to maximize income within ranges of underwriting results, but it is impossible to identify the optimum investment policy in advance.
3. Another important consideration is the impact on the market price of the insurance company's stock caused by variations in overall results. It is possible that some stock analysts would be ill disposed towards a company offsetting realized capital gains with operating losses. Such a philosophy would be based on the theory that poor management is indicated whenever an operating loss that should receive a 48% tax credit is offset by capital gains receiving only a 30% tax credit.

The problems and considerations mentioned above provide a difficult setting for planned taxes. However, if sufficient taxable income from other sources is available to offset any underwriting loss then the optimum investment policy is to invest in tax-exempt securities to the greatest extent possible (assuming the after tax yield from taxable securities is less than the yield on tax-exempt securities as has usually been the case). Returning to the ABC Insurance Company to illustrate this point, the modified Net Income Curve on Exhibit VII shows the effect of taxable operating income from external sources sufficiently large to offset any underwriting loss. As can be seen on this exhibit, when taxable investment income is zero, net income is maximized at a level which substantially exceeds that obtained from any other bond portfolio.

EXHIBIT VIII

NET INCOME CURVE  
 ASSUMING OTHER TAXABLE INCOME  
 SUFFICIENT TO OFFSET ANY  
 OPERATING LOSS



This paper has briefly explored the subject of federal income taxes in the hope of stimulating investigations into this important area of insurance company operations. In the final analysis, net income is the sum of underwriting profit, investment income and taxes, and the latter may be the most important *controllable* factor in maximizing income.

#### DISCUSSION BY M. STANLEY HUGHEY

The very nature of the property and liability insurance industry involves the collection of dollars in the form of advance premium payments, the payment of losses that occur under the insured exposure as they are settled, and the payment of the related expenses of doing business as they fall due. Therefore, at any given time a property and liability insurance company has funds it is holding to make these various payments, as well as the equity funds which its stockholders (or mutual policyholders) have made available to guarantee financial performance.

The wise investment of these funds is an important element in the successful operation of a property and liability insurance company, and there are a number of important considerations to be taken into account:

1. Invested funds should provide security and protect a satisfactory surplus margin. Insurance companies above all else provide security and the investment program must be planned to provide that security.
2. Sufficient cash and liquid funds should be maintained at all times to meet liabilities which are due to be paid in the immediate future. The extremes are reflected in the "liquidation theory" where investments are maintained in such fashion that the company could orderly liquidate all liabilities if it stopped writing business, and the so-called "cash flow" theory where investments are planned on the basis that premium income would continue to flow at about the same level and losses and other expenses could be paid out of current premium receipts. In any given company some of the logic underlying both theories can be helpful in developing the best individual investment program.

Evaluating property and liability insurance company liabilities:

- Unearned premium reserves involve prepaid expenses, expenses falling