

THE CAPITAL INVESTMENT MARKET AND THE INSURANCE INDUSTRY

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*"He that refuseth instruction despiseth his own soul,
but he that heareth reproof getteth understanding."*

— *Proverbs 15:32*

Introduction

It should be obvious even to a casual observer that something very significant is happening to the property and casualty insurance industry. It is not difficult to determine that this something appears to be connected with profitability.

On the one hand, there is a heated debate as to the size and adequacy of the profits in the industry. We have seen a study by respected professional economists, based on ten years' experience, which showed that the insurance industry is earning inadequate remuneration on the capital invested. They arrived at a figure of 4.4% for 43 property and casualty insurance groups.¹ A prompt rebuttal followed by other professional economists who, using a different approach, a different sample, and a 15-year period, came to a conclusion that a "vast majority of these companies are experiencing more than satisfactory risk-returns."² Members of our Society also made some contributions. As early as 1961 a president of this society said: "Private industry which does not make profit is in great trouble indeed, . . ."³ Six years later a paper published outside the *Proceedings* contends that it is profitable for the insurers to remain in the insurance business with combined loss and expense ratios of 104.55 in casualty and 106.3 in fire.⁴

Another actuary employed by the regulatory authorities calculated that a group of representative companies made an underwriting profit from investments amounting to 3.2% of earned premium with some implication

¹ Arthur D. Little, Inc., "Prices and Profits in the Property and Liability Insurance Industry."

² R. L. Norgaard and C. J. Schick, "Profitability in the Property and Liability Insurance Industry."

³ William Leslie, Jr., Presidential Address, *PCAS*, XLVIII.

⁴ Frank Harwayne, "Insurance Risk, Investment and Profit," *CPCU Annals*, March 1967.

that a part of this at least should benefit the policyholders.⁵ The view that the insurance industry is making excessive profits seems to be gaining some public acceptance, and there have been some regulatory decisions that some part of investment income should have been used or considered, or is to be used or considered, in rate revisions. One Commissioner decided that "the rate of return realized by any particular insurance company on its business investment is a peripheral issue at most."⁶

On the other hand, it would appear that the capital investment market came to its own decisions and put up for sale a few of our largest insurance groups to some bidders most of us have never heard of. Evidently, this is all very confusing and we could easily conclude that these outside people are not sufficiently acquainted with the insurance business, which "is *not* comparable to most other enterprises,"⁶ and let our case rest. However, it is possible that it is the insurance fraternity, including the actuarial profession and the regulatory authorities, which may be overlooking certain points in the practical operation of our economic system. The purpose of this paper is to discuss and illustrate some of these points.

Some Economic Principles

First, the economic theory is that profits are necessary for an efficient allocation of resources among competing uses within the economy. Capital is one of such resources and it tends to move into uses where it is most urgently required, the comparative urgency, *ceteris paribus*, being measured by the relative level of profits. It is generally accepted in this country that this arrangement provides the basis for the high level of efficiency in our system, compared with other systems. Strange as it seems, we have convinced even countries like Soviet Russia and other communist states, that this, in fact, is so and as a result they have introduced the profit factor, to a moderate extent, into their own system.

Second, capital used to finance given operations does not come free. Its economic cost is measured by the earnings which it would achieve in an alternative employment exposed to approximately the same degree of risk. Therefore, if in insurance the return on capital is 8%, and in an alternative employment the return is 15%, the proper economic interpretation is that we are losing seven points and not gaining eight points.

⁵ R. A. Bailey, "Underwriting Profit from Investment," *PCAS* LIV.

⁶ April 16, 1968 Decision of Pennsylvania Insurance Commissioner on rate revision requests filed by I.R.B.

Third, the level of profits necessary to keep the capital within the industry does not stay the same over a period of time; e.g. 8% return in insurance may look attractive if the alternative is keeping the money in bank at 3½% annual interest. The attractiveness of the investment in insurance will decline considerably if the banks decide to pay a rate of interest of 7%.

Fourth, the economic principles imply only a tendency for the capital to move from less to more profitable employment. They do not specify the length of time in which this would be accomplished. Frequently, the operation of economic laws is quite slow and therefore we may be tempted to assume that we are immune from their effect. This may result in a rude awakening because however slow they may be, unless the underlying conditions change, their effect is cumulative and inevitable.

But, capital movement from one industry to another obviously is a long process. It begins when the investors become suspicious that they may have made a mistake in investing their capital in a given industry. Their first step is to stop providing fresh capital and hope that things will take a turn for the better. After it becomes crystal clear that there is not going to be an improvement, they begin to investigate the possibilities of withdrawing this capital with as little loss as possible. The economists would refer to this as mobility of capital. In some employments, the mobility of capital is very small, especially if the capital is invested in specialized machinery and equipment limited to a particular use only. The important point is that there are few industries with a greater potential mobility of capital than the insurance industry. The mobility of capital will insure that in the long run the return on capital invested by the stockholders in the insurance business will have to be at least equal to the return in alternative employment with a similar degree of risk. This will hold regardless of the competition for the premium dollar and regardless of the action of the regulatory authorities.

There is a branch of economics known as economic history, which would be interested in the average profitability of the insurance industry over the last 10 or 15 years. Applied economics is concerned with the future and it analyzes the past only in order to determine some recent trends which could extend into the future.

"To be or not to be" — Alternative Uses for Capital Invested in the Insurance Business

At present, investment capital commands a high price. Rates of interest and investor profits are very high. No doubt, a sophisticated investor would

come up with a number of possible uses of capital with an annual return of 20% or more. Let us be quite unimaginative and decide on a fairly easy transfer, namely from insurance operations to investment fund.

The figures in the appended tables are based on "Statistical Tables from Annual Statements" published by the New York Insurance Department, and refer to stock fire and casualty companies licensed in the State of New York (New York Stocks and Other States Stocks). The reason for considering stock companies only is that they are the most vulnerable to the operation of economic laws. On the other hand, stock companies have a dominating position in the insurance business and a departure of a large proportion of stocks from the insurance scene would leave a tremendous void which could not be easily filled. The figures below show that stock companies accounted for 78.5% of the capital and surplus and 69.6% of the premium writings of all insurers licensed in New York.

COMPANIES LICENSED IN NEW YORK

	Capital & Surplus at 12-31-66		Net Written Premium in 1966	
	Amount (000's)	% of Total	Amount (000's)	% of Total
Stocks	10,069,764	78.5	12,189,049	69.6
Mutuals	2,075,414	16.2	4,193,421	24.0
Lloyds Reciprocal and Co-operatives }	152,779	1.2	417,301	2.4
Alien	525,535	4.0	708,493	4.0
	<u>12,823,492</u>	<u>100.0</u>	<u>17,508,264</u>	<u>100.0</u>

Appended Tables 1 and 2 develop three-year averages for the years 1964-1966 and Table 3 presents the comparison of actual results in the insurance operations with calculated results after the insurers have converted to investment fund.

The conversion from insurance operations to investment fund operations will be accompanied by a sharp reduction of nearly 50% in total assets. In other words, a large amount of assets would have to be liquidated and the interesting question arises, which? The answer is not very difficult. We would dispose of assets which are not necessary for the operation of the investment fund and which are the least profitable. This

principally embraces the uninvested assets maintained for the benefit of insurance operations, and bond portfolios. The main point is that the investment fund will not dispose of its common stocks because:

- (1) These have been always the most profitable investment.
- (2) There are large unrealized gains in the stock portfolio and its disposal would be heavily penalized by taxation.

The rates of return on various types of assets have been assumed to be identical for the insurers and the investment fund. A market appreciation factor of 7.7% was selected to be applied to common stocks only. The actual gains in the Standard & Poor's Index were as follows:

Period	Average Gain Per Calendar Year
1950-1967	9.9%
1955-1967	7.1
1960-1967	7.4

The figures in Table 3 indicate that under these assumptions the total investment gain (before Federal income tax) would be higher for the insurers by \$149,874,000 or 1.4% of Earned Premium. It means that a combined ratio of 101.4 appears to be the critical point at which it would become profitable for the insurers to abandon the insurance operations and become a rather dull, conservative, investment fund. The interesting point is that once the transition from insurer to investment fund is accomplished, the stockholders will be exposing their capital to less risk. Before the transition, their capital supported an investment portfolio some 75% higher plus a volatile insurance operation. As the capital is exposed to less risk, they should be satisfied with a lower return. Alternatively, they could increase the risk by moving into more risky and therefore more profitable investments. This would tend to lower somewhat the critical ratio of 101.4%.

The average adjusted underwriting loss for the stock companies during the years 1964-1966 amounted to \$156,405,000 which, subtracted from the total investment gain for the insurers, reduces the total gain for the insurers below the figure for the investment fund. This means that stock companies licensed in the State of New York have, as a group, passed the critical point at which it would be advantageous to leave the insurance industry.

Some Implications

It has to be realized that results vary from insurer to insurer; there are

stock insurers which earned a good return on their capital and consequently they would lose if they converted to an investment fund. The preceding analysis leads to the conclusion that a majority of insurers passed the critical point at which conversion becomes profitable. No doubt, some of them passed it by a substantial margin, and had they behaved in an economically rational manner, they would have left the insurance industry years ago.

In our present situation, the question whether we should include investment income in rates is of some importance. If the regulatory authorities are successful in a majority of states in reducing the indicated rate increases by application of the investment return on unearned premium reserves and/or loss reserves, such action would tend to deteriorate the operating results of insurers. As a result, the capital movement out of insurance would gain more impetus. From the economic point of view, the investment return is the entrepreneurs' profit, which is properly the reward for risk bearing. The point is that it is the stockholders, not the policyholders, who assume the risks connected with the investment portfolio, hence the policyholders are not entitled to that return. The most they are entitled to is the rate of interest, provided the price for insurance is sufficiently high to cover its economic cost.

Here it would be a good thing if we reviewed the economic theory of price which, whether we like it or not, does apply to insurance. The theory says that in the long run the price must be equal or higher than the economic cost of the product we sell. The economic cost in our case includes loss cost, expenses, and *adequate return on invested capital*. If there is an element of uncertainty in our cost, we have to include a safety margin. If the element of uncertainty is very large, the safety margin has to be higher. It may be useful to point out that we have been violating these precepts to a fantastic degree:

- (1) We did not care what the adequate return on investment capital was and we did not include it in our price.
- (2) As we are all aware, our costs do include an element of uncertainty and in most cases we could arrive at a number of estimates, all of them reasonable and all of them equally likely. We exhibited a most disturbing tendency (either voluntary or forced on us by regulatory authorities) to pick the lowest estimates as the final price of our product. The logic of this can be compared with tossing an unbiased coin and expecting it to come head up every time.

- (3) The element of uncertainty is large in the case of property lines in some states exposed to natural catastrophes. Instead of incorporating a larger safety margin, it appears that precisely in such cases we maximized the inadequacy of our rates.

Investment capital began to avoid the insurance industry some years ago. This avoidance can be described as stage one. We are now in stage two, which is characterized by the actual withdrawal of investment capital. This has manifested itself in several ways:

- (1) Voluntary liquidation.
- (2) Companies purchasing their common stock in the market.
- (3) Formation of holding companies by the insurers.
- (4) Take-overs of insurers by outside companies which have a large, unsatisfied demand for additional capital.

The first three represent the efforts of the insurers to solve the problems on their own. The last one is the most ominous as it appears to be a full-dress rehearsal of the moves planned for us by the capital investment market. If the "giant slayers" like Leasco, National General, City Investing, achieve their initial objectives and fulfill their expectations, the insurance industry will face some far-reaching changes.

For practical reasons, people making their living in insurance are not very enthusiastic about such changes, and naturally enough they are looking around for weapons to get ready for the fight. The writer has some experience in the matter, as he has witnessed such fights from a ring-side seat, much too close for comfort. The weapons could be classified into two groups: (1) effective, (2) ineffective. The list of effective weapons includes only one and that is the improvement in the profit position, so that there is a satisfactory return on invested capital. The ineffective weapons are many, mostly belonging to psychological warfare, which fail miserably when faced by determination and resolution. Could the regulatory authorities step in and bail us out by regulation or legislation designed to prevent such take-overs? In my opinion, it would be quite unrealistic to expect much from that direction. The only effective way to do this would be to curtail severely the rights conferred by the principle of private ownership of investment capital. The writer does not think that the country is ready for such extremes.

TABLE 1

STOCK FIRE AND CASUALTY INSURERS
LICENSED IN THE STATE OF NEW YORK

(in 000's)

<u>I. AVERAGE ASSETS</u>	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>3 Years Average</u>
<u>Invested Assets:</u>				
1. Bonds	10,369,381	10,820,309	11,368,280	10,852,657
2. Preferred Stocks	723,608*	776,543*	752,380	750,843
3. Common Stocks	9,886,481*	10,609,720*	10,279,400	10,258,534
4. Mortgage Loans -	8,225	8,556	12,132	9,638
5. Real Estate	269,326	300,118	328,999	299,481
6. Bills Receivable taken for Prem.	95,509	105,700	117,527	106,245
	<u>21,352,530</u>	<u>22,620,946</u>	<u>22,858,718</u>	<u>22,277,398</u>
<u>SUB-TOTAL</u>				
<u>Assets Not Invested:</u>				
1. Investment Income Due & Accrued	190,414	291,410	221,691	234,505
2. Uncollected Premiums	1,658,693	1,758,832	1,891,610	1,769,712
3. Cash	716,517	670,637	659,359	682,171
4. Reinsurance on Paid Losses	70,956	98,718	112,150	93,941
5. All Other Assets	396,365	519,584	622,318	512,756
	<u>3,032,945</u>	<u>3,339,181</u>	<u>3,507,128</u>	<u>3,293,085</u>
	<u>24,385,475</u>	<u>25,960,127</u>	<u>26,365,846</u>	<u>25,570,483</u>
<u>TOTAL ASSETS</u>				
<u>II. PREMIUMS</u>				
1. Net Written Premium	10,010,057	11,166,669	12,189,049	11,121,925
2. Net Earned Premium	9,897,083	10,766,865	11,750,442	10,804,797
3. Unearned Premium Reserve	6,186,847	6,497,812	6,920,961	6,535,206
<u>III. STOCKHOLDERS' EQUITY</u>				
1. Capital & Surplus	11,200,559	11,616,833	10,874,010	11,230,467
2. Equity in Unearned Prem. Reserve	<u>1,670,449**</u>	<u>1,754,409**</u>	<u>1,868,659**</u>	<u>1,764,506**</u>
	12,871,008	13,371,242	12,742,669	12,994,973

* Estimated

** Estimated at 27% of Unearned Premium Reserve

CAPITAL INVESTMENTS

TABLE 2

STOCK FIRE AND CASUALTY INSURERS
LICENSED IN THE STATE OF NEW YORK

(in 000's)

	<u>1964</u>	<u>1965</u>	<u>1966</u>	<u>3 Years Average</u>
Underwriting Gain or Loss	- 275,881	- 380,193	+ 51,020	- 200,685
Plus Increase in Unearned Prem. Equity	+ 68,505	+ 118,074	+ 135,816	+ 107,465
Minus Dividends to Policyholders	- 45,412	- 56,107	- 68,574	- 56,698
Other Income	<u>- 4,737</u>	<u>- 5,167</u>	<u>- 9,557</u>	<u>- 6,487</u>
Adjusted Underwriting Gain	- 257,525	- 323,393	111,705	- 156,405
Net Investment Income Earned	963,132	836,648	920,558	906,780
Net Realized Capital Gains	154,306	205,276	298,499	219,360
Unrealized Capital Gains	<u>673,181</u>	<u>188,600</u>	<u>- 1,425,234</u>	<u>- 187,818</u>
Total	1,790,619	1,230,524	- 206,177	938,322
Total Income before Tax	<u>1,533,094</u>	<u>907,131</u>	<u>- 94,472</u>	
<u>Investment Income Received</u>				
Interest on Bonds	358,565	382,565	413,013	384,714
Dividends on Preferred Stocks	22,421*	22,288*	34,842	26,517
Dividends on Common Stocks	406,038*	403,622*	630,933	487,627
Other Investment Income	<u>59,121</u>	<u>67,518</u>	<u>72,958</u>	<u>66,532</u>
TOTAL	846,145	875,993	1,151,746	965,390

* Estimated

CAPITAL INVESTMENTS

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TABLE 3

(Amounts in 000's)

<u>STOCK FIRE AND CASUALTY INSURERS</u> <u>LICENSED IN THE STATE OF NEW YORK</u>		
I. <u>AVERAGE ASSETS</u>	Operating as <u>Insurers</u> 1964-1966 Average	Operating as <u>Investment Fund</u>
Invested Assets:		
1. Bonds	10,852,657	--
2. Preferred Stocks	750,843	--
3. Common Stocks	10,258,534	12,259,015
4. Mortgage Loans	9,638	--
5. Real Estate	299,481	299,481
6. Bills Receivable taken for Prems.	<u>106,245</u>	--
SUB-TOTAL	22,277,398	12,558,496
Assets Not invested:		
1. Investment Income due & Accrued	234,505	132,198
2. Uncollected Premiums	1,769,712	--
3. Cash	682,171	304,279
4. Reinsurance on Paid Losses	93,941	--
5. All Other Assets	<u>512,756</u>	--
SUB-TOTAL	3,293,085	436,477
TOTAL ASSETS	<u>25,570,483</u>	<u>12,994,973</u>
II. <u>PREMIUMS</u>		
1. Net Written Premium	11,121,925	--
2. Net Earned Premium	10,804,797	--
3. Unearned Premium Reserve	6,535,206	--
III. <u>STOCKHOLDERS' EQUITY</u>		
1. Capital & Surplus	11,230,467	12,994,973
2. Equity in Unearned Prem. Res.	<u>1,764,506</u>	--
TOTAL STOCKHOLDERS' EQUITY	12,994,973	12,994,973
IV. <u>INVESTMENT GAIN</u>		
1. Interest on Bonds	361,357 *	--
2. Dividends on Preferred Stock	24,907 *	--
3. Dividends on Common Stock	458,022 *	547,328
4. Other Investment Income	<u>62,494</u>	<u>55,541 **</u>
SUB-TOTAL	906,780	602,869
Market Appreciation (7% on Common Stocks)	<u>789,907</u>	<u>943,944</u>
TOTAL INVESTMENT GAIN	1,696,687	1,546,813
V. <u>ADJUSTED UNDERWRITING LOSS</u>	<u>- 156,405</u>	--
TOTAL GAIN	1,540,282	1,546,813

* Estimated by applying the distribution of Investment Income Received to Net Investment Income Earned.

** Obtained by subtracting from Other Investment Income an estimated return of 6% on Mortgage Loans and Bills Receivable.