

Empirical Research on Strategic Management Patterns in Non-Growing Industries

Sang-Bum Park

*Hankuk Aviation University**

Abstract

Some industries, such as the life insurance industry, are regarded as having no growth. Such an industry has few investment opportunities available. In addition, life insurance companies stressing growth may face lower profitability. This research investigates strategies that managers take under the conditions of limited investment opportunities and the lower profitability that growth may cause.

Key Words: non-growing industry, investment, opportunity, abnormal earnings, management patterns, agency conflicts.

I. Introduction

A manager's main goal should be the maximization of the wealth of the shareholders as expressed by the stock price, and a manager's secondary objectives are increasing the company's market share and market influence, maximizing sales, and enhancing his or her reputation. According to Mayers (1981), the value of a company consists of its present asset value and future growth possibility. Ohlson (1995) suggests that the market value of a company is equal to the sum of the book value adjusted for the current profitability as measured by abnormal earnings and other information that modifies the prediction of future profitability. So if an industry is saturated, what are the strategies managers take to maximize shareholder wealth?

In an industry with little growth such as the life insurance industry, there are fewer opportunities to invest and fewer chances to earn abnormal gains. The characterization of the life insurance industry as one with restricted growth opportunities has intuitive appeal. There are few opportunities to generate abnormal earnings from underwriting operations because mortality and morbidity statistics are well defined by actuary tables. Cash flow from other investment operations, the informational efficiency of investment markets, and taxation at both the corporate and individual level limit the owners' ability to receive even normal rates of return. Furthermore, regulators have incentives to constrain industry prices, and this also limits the realization of abnormal returns. Moreover, empirical research on the life insurance industry shows that the insurance industry is not growing (Gaver and Gaver, 1993).

Accordingly, managers in the life insurance industry face a dilemma from the standpoint of finance theory. The fact that the industry is not growing means managers have fewer opportunities for investment. For each firm, concentrating on growth can cause lower profit-

* Sang-Bum Park was working for Dongseo University when this article was written.

ability due to the accounting features of the insurance industry and expenses such as agent commissions, reinsurance fees, and lapse ratios. Managers are very sensitive to lower profitability because it is directly linked to their compensation and reputation.

In this paper the relationship between concentration on growth and profit is examined. Also, dividend payment patterns and factors affecting firm's profitability are investigated, and characteristics of general management patterns in an industry with fewer investment opportunities are identified, noting that stressing growth can cause lower profitability.

The results of this study will help firms efficiently allocate resources and develop compensation plans for managers, keeping in mind the managers' situation.

II. Studies and Hypotheses

1. Studies

Mayers and Smith (1982, 1987, 1989, 1990) studied efficiency in the insurance industry with regard to mutualization, line-of-business concentration, geographic concentration, reinsurance purchase, and executive compensation. Boose (1990) found that mutual companies have higher general expenses than stock insurers. McNamara and Rhee (1994) investigated ownership structure and performance. Harrington (1981) suggested that most life insurers change dividends slowly in relation to earnings change because growth in assets and surplus provide an extra margin of safety. Also, the management personnel of life insurers have a strong preference for stable dividends and reluctance to increase dividends to levels that could possibly not be maintained. Akhigbe et al. (1993) tested the response to dividend increases of the share price of insurers and found that the life insurers' response is positive but the magnitude is smaller than in other industries.

Many studies have concentrated on finding the differences between the two types of organizations in the insurance industry: mutual companies and stock companies. Few studies have examined management patterns in a low-growth industry such as the life insurance industry.

2. Hypotheses

(1) Growth and Profitability

Due to the characteristic features of the life insurance industry, focusing on growth can lead to lower profitability. Generally, there are two types of life insurance policies: term policies and ordinary policies. Term policies furnish life insurance protection for a limited number of years. The face value of the policy is payable only if the insured's death occurs during the stipulated term, and nothing is paid in the case of survival. Term policies are structurally simpler and cheaper than the other policies.

Ordinary life insurance policies provide whole life insurance. Ordinary life policies are intended to afford permanent protection with cash values and dividends. Accordingly, ordinary life policies are more expensive and structurally complicated than term policies.

The main source of cash flow for an insurer is premium income. For this research, the concept of growth is limited to the growth of premium volume. In that sense, a firm that is willing to grow has to collect as many policyholders as possible. Growth oriented companies are more likely to emphasize the sale of term policies that are easier for policyholders to understand and cheaper than ordinary policies.

However, stressing rapid growth in term policy sales can lead to problems with profit because of the following reasons. First, under statutory accounting rules insurer expenses

(including commissions) are charged to the year they are incurred rather than being spread over the period of the contract, as they are under GAAP accounting. In general, the biggest portion of expenses incurred selling policies is commission, and these expenses have to be paid from other sources at the moment.

Second, a rapidly growing insurer is more likely to need surplus relief than an insurer that is growing more slowly. This need for surplus relief results from the accounting of prepaid expenses. Those companies that need surplus relief seek reinsurance. The problem is that reinsurance is not free. If new policy is reinsured in the first year, the prorated share of the premium minus a ceding commission and allowance is paid to the reinsurer. Most rapidly growing insurers use reinsurance regularly as a means of obtaining better underwriting offers for potential policyholders who do not qualify for a standard or a moderately substandard policy under their own underwriting standards. Also, reinsurance is another way of softening regulatory pressure.

Third, growth oriented firms have to lower their criteria of underwriting, which can lead to a high loss ratio due to an adverse selection effect.

Fourth, among growth oriented firms, competition centers on term sales than any other life insurance product. Term policies have smaller margins and their premium rates are lower than ordinary policies. Price competition on term policies with inherently smaller margins and the lower premium rates of term policies can deprive firms of even a small margin of profit. Fifth, the lapse ratio is generally higher in the first policy year than it is in subsequent years. Growth oriented insurers try to collect more customers and may pay less attention to each, which can result in customer dissatisfaction. The loss ratio on new business is likely to be higher and less predictable than the loss ratio on long-term business maintained through renewal underwriting. The more an insurer has new business, the more it needs reinsurance.

Sixth, the amount of commissions paid is directly proportional to the number of customers collected. As mentioned before, commission fees are the biggest portion of transaction costs for insurers.

From this one can infer that growth oriented companies tend to record a lower profitability than companies with slower growth. Because of the problems linked to growth-centered strategies and limited investment opportunities, managers in the life insurance industry have very limited room for making firms grow. From the standpoint of finance theory, which states that a firm's value is the sum of its present asset value and future growth possibility, limited opportunities for future growth can induce managers take different strategies from other industries. For example, growth oriented firms tend to sell more term policies than ordinary policies. This study investigates specific management patterns, if any, in the life insurance industry.

(2) Dividend Payment Patterns

Miller and Modigliani (1961) and Miller and Schole (1978) argue that the value of the firm is unaffected by dividend policy. The key idea of their argument is that investments decisions are completely independent of the dividend policy. This argument appeals more intuitively to the situation where very limited investment opportunities are available.

Many authors including Collins and Kothari (1987) assume dividends are proportional to earnings. Masulis-Treuman (1986) insist that high growth firms will use up all their internally generated funds without paying dividends, but older, more mature firms will pay dividends because not all internally generated funds will be used for investment opportunities. In a life insurance industry with limited growth opportunities, the dividends payment pattern is expected to be different between older companies and younger ones.

Harrington (1981) suggested that most life insurers change dividends slowly in relation to changes in earnings because asset growth and surplus provide an extra margin of safety.

In a mature industry with limited chances of investment, it appears that managers pay more dividends than in other industries instead of saving profits for future investment. In this paper, patterns of dividend payment and the relationship between dividend payment and earnings are examined.

(3) Life-cycle Theory

According to Hirshey and Papper's (1981) life-cycle theory, small companies tend to maximize growth while large companies emphasize profits. In light of this, the following hypotheses will be addressed in this paper. First, the longer a firm has been in business, the larger it is and the more qualified is its workforce. Second, the longer a firm has been in business, the more stabilized is its cash flow. Third, established firms make more efforts in selling ordinary policies rather than term policies, pay more dividends out of profit instead of saving it within the firm, and reinsure more often in order to stabilize cash flows. Fourth, younger firms stress growth rather than profitability.

The ages of insurance companies in the U.S. range from over 100 years old for older firms to just a few years for relatively new companies. Each year about 20 companies enter the industry and roughly the same number of companies go out of business. Relatively new companies in the industry make efforts to expand their market share. On the other hand, stabilized firms tend to seek more profits, focusing on selling longer-term policies and reducing lapse ratios.

(4) Summary

Based on the above discussion, we have the following hypotheses to test. First, growth oriented firms record lower profitability than other firms. Second, growth oriented firms focus on selling more term policies than ordinary policies. Third, dividend payment is closely related to earnings. Fourth, younger firms seek to grow more rapidly and thus make efforts to sell more term policies. Fifth, older firms are larger, emphasize profit maximization, and pay more dividends.

III. Research Methodology

1. Testing Methods

To test the first hypothesis, a profit equation has been created, and for the other hypotheses, a correlation matrix among the variables has been investigated.

2. Variables and Equation

AMBest reports yields on investments and net operating gains separately. Obviously, investment income will affect operating gains to some extent through cash flow, but there is no way to measure this effect.

Ohlson posits that the market value of a company is equal to the sum of its book value adjusted for its current profitability as measured by abnormal earnings and other information that modifies the prediction of future profitability. Future profitability can be eliminated for companies in the life insurance industry due to their limited growth potential. Thus, two factors remain in the Ohlson model: book value and current abnormal earnings.

The life insurance company profit function may be stated as follows:

Total Profit = Underwriting Profit + Investment Profit¹

$$\pi = (P - \Delta L - C - E) + I * (R - r) + e * r \quad (1)$$

where,

π : total profit

P : premium volume

ΔL : changes in legal reserves

C : claims paid during the period

E : expenses including agent commission

I : dollar value of investment made

R : rate earned on investments

e : equity

r : assumed rate at which the reserves are calculated

This profit figure represents GAAP or statutory accounting profit. There is no reason to restrict the profit in this model to statutory accounting profits except economic profits (other expenses, especially commissions). From the above equation, a firm that intends to differentiate itself from other companies in terms of profitability should increase P and reduce ΔL , C and E , assuming that investment markets have informational efficiency.

Premium volume, P , depends on the number of policies that a firm holds and the size of the premiums. Change in legal reserves, ΔL , is function of the premium volume and the amount of reinsurance. Legal reserve is the term used to refer to the amount of the insurer's liability to fulfill future contingencies and unpaid liabilities already incurred. Therefore, given the condition of limited opportunities to make abnormal earnings from investment operations, a manager has to make efforts to reduce the number of claims paid during the given period, C , and expenses and agent commissions, E , in order to maximize profit from operations. The number of claims paid during the given period depends on underwriting skill as well as the number and size of the policies. Expenses, including commissions, are affected by many elements. In particular, when a firm employs a growth-oriented strategy, expenses tend to be different.

Intertemporal valuation requires a sequence of information realization and underlying market risk. In a mature market, it can be assumed that all the necessary information is available to anyone and that risk is stable. This allows the argument that cross-sectional profit research is valid and the second and the third factors of the equation (1) can be overlooked in this research.

Based on the above discussion, there are 9 variables influencing profit. These are emphasis on growth, focus on term business, firm size, policy size, expenses, diversification, reinsurance and dividend payments, and regulation.

An insurance company's profitability can be measured in many ways. Three profitability ratios are popular. These are return on equity, yield on investment, and net operating gain to income. Return on equity reflects the return on an insurer's capital and surplus from insurance operations and investments. Net gain from operations is the approximate SAP equivalent of net income under GAAP. Yield on investment indicates the quality of investment

¹ This profit function is stated by a number of authors, such as Lovelace (1961), Mehr (1970), and Doherty (1980).

management. Net operating gain to income measures the return on sales. Total operating income is the sum of premium and investment income. Because the concern is on profit from operations, a new variable has been introduced. This new variable is the result when net investment income is subtracted from net gain from operations and the result is divided by the amount of new premiums written.

Profitability

ROE (return on equity): net gain from operation / adjusted surplus

YOI (yield on investment): net investment / invested assets

NOGTI (net operating gain to income): net gain from operations / total income

PRF (profit from insurance operations): (net gain from operations – net investment) / amount of new premiums written

Emphasis on growth indicates growth in terms of amounts of insurance. As discussed above, there are two types of policies, term and ordinary, and, accordingly, two variables expressing term growth and ordinary growth are chosen separately as follows. Compared to whole life policies, term policies have smaller margins and their premium rates are lower.

Emphasis on Growth

TRMGR: total new term policies in force / total term policies in force

ORDGR: total new ordinary policies in force / total ordinary policies in force

For firms to grow, term business is easy to handle considering its price, simple structure, underwriting, and contract period. Four variables for expressing a concentration on term business are listed below. Among these variables, the ratio of the total number of term policies to the total number of policies in force best expresses the rate of concentration of a company on term business because other variables do not adequately reflect it.

Concentration on Term Business

NTNO: new term policies / new ordinary policies

NTTT: new term policies / total term policies

TTTP: total term policies / total policies in force

TTTO: total term policies / total ordinary policies

It would be reasonable to infer that companies with a large amount of admitted assets retain large amounts of insurance. Insurers with large amounts of statutory capital and surplus are less affected by surplus strain caused by the writing of new business and are also better able to diversify. In the insurance industry, a company's size can be measured by several indicators such as admitted assets, direct premiums written, and capital and surplus. Admitted assets are those that may be included in determining an insurer's statutory solvency². Direct premiums written indicate the whole premium amount that a firm itself undertakes. The amount of direct premiums can be calculated numerically by subtracting the amount of premiums assumed from ceding companies from the amount of new premiums written. Capital and surplus represents the excess amount of a company's assets minus its liabilities. Of these, the

² Nonadmitted assets are not recognized by regulatory authorities in assessing solvency and include items such as furniture, equipment, etc.

amount of direct premiums written best reflects the profit generating source of a firm.

Firm Size

AA: admitted assets
 DPW: direct premiums written
 CS: capital and surplus

Policy size indicates the face value amount of its contracts. Term policies are generally small while ordinary policies are bigger. As policy size increases, insurers show a greater willingness to reinsure more, assuming other things being equal. This would be consistent with one of the purposes of reinsurance, which is to stabilize profits by minimizing the potential adverse effect on a ceding company's financial and operating results. These can arise from one or more death claims that are large in relation to the average death claim.

Policy Size

AVGPF: average policy size in force
 AVPSN: average policy size of new policies written

The most important elements in insurance industry explaining expenses are the lapse rate and amount of agent commissions. These two elements are normally beyond a firm's control. The lapse rate measures the proportion of policyholders who voluntarily terminate their insurance during a year. Lapse rates can be viewed as an indicator of policyholder satisfaction and as corresponding to the quality of the insurer's agents, underwriting staff, and overall workforce. Excessive lapses can have a negative impact on expenses, investments, and mortality anti-selection. High lapse rates are often direct results of a large volume of new sales, and in this event ceding insurance companies are likely also to use reinsurance for surplus relief.

Agent commissions should be determined at a level that accounts for proficiency and efficiency. In general, agent commission levels depend on a company's status in the industry as well as the capability of its agents.

Expenses

LPRTIO: Lapse ratio
 ACMDP: Agent commissions / DPW

Firms that have a longer history in the industry have had better opportunities to diversify risks and volatility. In this case, geographic spread is chosen to represent the rate of diversification. Geographic spread decreases the volatility of a firm's value and increases its real service value.

Diversification

SPRD: geographical distribution
 AGE: years in business

Following McNichols and Wilson's (1987) method, insurance companies are divided into two groups according to their years in business. Dummy variables are used to test Hirshey and Papper's life-cycle theory. 1 is given to the top 10% of young insurance companies and a 0 is given to the remaining companies in the sample.

Reinsurance affects insurers in many ways. Particularly, reinsurance can cause

fluctuations in premiums and reserves to some extent. Thus, two aspects of reinsurance will be taken into account: reinsurance ceded and reinsurance accepted.

Reinsurance

REINCD: reinsurance ceded / new premiums written

REINAS: reinsurance assumed / new premiums written

In the life insurance industry, dividends are paid to two groups. For stock insurance companies, dividends are paid to shareholders just like stock companies in other industries. Policies that pay dividends are classified as participating policies. Policy dividends are paid on policies that base experience on derivations of actual from illustrated operating experience, relative to the mortality, interest, and expense assumptions built into the premium. For this research, the amount of dividends paid to shareholders has been chosen because participating policies are more commonly issued by mutual companies³.

Dividends

DVDP: dividends paid / direct premiums written

3. *The Equation*

The following equation that arises from the above discussion indicates the profitability of a life insurance company. Thus, profitability is dependent on factors such as growth, term business, firm size, policy size, expenses, diversification, reinsurance activity and dividends payment.

$$\text{PRF} = f(\text{TRMGR}, \text{ORDGR}, \text{TTTP}, \text{DPW}, \text{AVGPF}, \text{LPRTIO}, \text{ACMDP}, \text{SPRD}, \text{AGE}, \text{RINCD}, \text{RINAS}, \text{DVDP}, \text{REG}) \quad (2)$$

The concerns of this research are the variables of TRMGR and ORDGR, and the other variables are considered control variables.

4. *Data*

The following data come from AMBest's life/health report for the year 1999. The sample selection process was as follows. Each company was chosen according to its page number; for example, one company from the first 10 pages was selected, and then the next company was picked from the next 10 pages, and so on. Within each 10 page section, companies with incomplete data and mutual companies were not considered. On the average, this excluded less than one company per section. Through this process, 223 companies were selected, about 13 percent of the number of companies reported on by AMBest.

5. *Variable Measures*

The descriptive statistics from the sample are shown in Table 1. On the average, the firms have a 12.13 percent increase in premium volume resulting from term policies while an 11.85 percent increase results from ordinary policies. In general, term policies account for 24.3 percent of the total policies in force. The average amount of direct premiums written is about 3.7 million dollars. The average policy size in force is slightly larger than sixty thousand dollars. The lapse ratio averages 9 percent, which means about 9 out of 100

³ The sample companies are stock companies.

Table 1 Descriptive Statistics

Variable	Mean	Std. Dev.	N
TRMGR	.1213	.1519	223
ORDGR	.1185	.1570	223
TTTP	.2430	.2503	223
DPW	372,466	713,560.2	223
AVGPF	63848.9	136,183.2	223
LPRTIO	9.0776	7.4893	223
ACMDP	33.6827	34.47	223
SPRD	24.28	10.99	223
AGE	48.23	30.1	223
RINCD	.865	.167	223
RINAS	.135	.167	223
DVDP	.02478	.1459	223
PRF	.2600	1.5319	223

policyholders cancel their insurance contracts during the year. About 33 percent of the premium income on average is paid as agent commission. The firms in the sample do their business in an average of 24 states and have an average age of 48 years old. An average of 13 percent of premium income is paid for reinsurance fees and 2.478 percent of income is paid as dividends. The average profitability is 26 percent.

The regression equation obtained is the following:

$$\begin{aligned} \text{PRF} = & \alpha + \beta_1 \text{TRMGR} + \beta_2 \text{ORDGR} + \beta_3 \text{TTTP} + \beta_4 \text{DPW} + \beta_5 \text{AVROR} + \\ & \beta_6 \text{LPRTIO} + \beta_7 \text{COMM DPW} + \beta_8 \text{SPREAD} + \beta_9 \text{AGE} + \\ & \beta_{10} \text{REINCD} + \beta_{11} \text{REINAS} + \beta_{12} \text{DIV} + \varepsilon \end{aligned} \quad (3)$$

6. Results and Findings

The results of the regression equation (3) test are reported in Table 2. Contrary to the predictions, companies stressing growth do not suffer from lower profitability. One explanation for this result is that the records of growth-oriented companies show an increase of ordinary policies as well as term policies. Ordinary policies are more expensive and hold better margins that can offset profit eclipse incurred by rapid term policy sales. Other factors that

Table 2 Results of Regression Test

Variable	Coefficient	S. E	p-value
Intercept	1.406	.908	0.000
TRMGR	-.856	.745	0.1327
ORDGR	-.165	.012	0.3212
TTTP	.923	.436	0.1128
DPW	-7.17	.763	0.0011*
AVGPF	1.15	.012	0.0010*
LPRTIO	-1.59	.014	0.007*
ACMDP	-2.89	.006	0.050*
SPRD	-2.99	.10	0.6728
AGE	1.813	.004	0.3312
RINCD	.265	.686	0.001*
DIV	-.235	.763	0.002*

Note: DPW: natural logarithm of direct premiums written. AVGOR: natural logarithm of the average size of an ordinary policy. AGE: age of a firm (1 = young firms, 0 = old firms).

affect profitability are premium amounts, the average size of ordinary policies, lapse rates, commissions paid to agents and reinsurers, and dividend payments. The variables of age, spread, and level of concentration on term policies are not significant with regard to profitability.

The results of the analysis of the correlation matrix are reported in Table 3.⁴

Table 3 Correlation Matrix

	PRF	TRGR	ORGR	TTTP	DPW	AVGPF	LPRTIO	COMM	SPRD	AGE	RECED	REASS	DIV
PRF	1	.060	-.082	.105	-.016	-.023	-.095	.021	-.197*	-.012	-.034	.034	.048
TRGR		1	.216*	.154*	.008	.242*	.154*	.060	.034	.144*	.033	-.033	-.048
ORGR			1	-.076	-.010	.257*	.434*	.151*	-.023	-.038	.126	-.126	.064
TTTP				1	.119	.039	-.005	-.078	.127	.051	.018	-.018	.253
DPW					1	-.071	-.129	-.312*	.169*	-.242*	-.061	.061	.257*
AVGPF						1	-.047	.177*	-.063	-.077	.162*	-.162*	-.022
LPRTIO							1	.145*	-.028	.029	.002	-.002	-.225*
COMM								1	-.277*	-.069	.422*	-.422*	-.052
SPRD									1	-.172*	.016	-.016	-.041
AGE										1	-.035	.035	.000
RECED											1	-1	.005
REASS												1	-.005
DIV													1

Note: *indicates a significant correlation at a 0.05 (5%) level or greater.

The hypothesis that younger firms focus on growth is significant. However, the hypothesis that growth oriented firms try to sell more term policies than ordinary policies is not supported. Instead, growth oriented firms stress not only the growth of term policies but also the growth of ordinary policies.

The dividend payment ratio is correlated with the number of premiums written and the lapse rate. This result indicates that factors affecting the rate of dividend payment are those of income and expenses.

Company age is correlated with the variables of term growth, premiums written, and geographic spread. Older firms are larger in size and are diversified in more states. The longer a firm has been in business, the more opportunities a firm has had to diversify. Because profit is correlated with geographic spread, one can infer that older firms are higher in profitability than younger firms. Also, the significant correlation between size and dividend payment ratio implies that older firms have higher dividends payment ratios.

A high lapse rate is correlated with concentration on term growth, as expected. The larger the size of the average ordinary policy, the more a firm reinsures. This is consistent with the fact that larger policies carry more risk, so more reinsurance is needed.

There is a significant positive correlation of commission payment with reinsurance, ordinary growth, ordinary size, and lapse rate. Commission payment is also negatively correlated with spread and size. Reinsurance, ordinary growth and ordinary size are variables that have intuitive appeal because of their correlation to commission payment. Unlike ordinary growth, term growth is not correlated with commission payment, probably because the commissions paid to term policies are not big enough to affect the total rate of commission payment. This result is consistent with the finding that term growth does not have an influence on profitability. Managers should pay attention to the positive correlation between commis-

⁴ The multicollinearity problem is not severe.

sion payment and the lapse rate. A high lapse rate results from customer dissatisfaction. There are various reasons for customer dissatisfaction. However, some points to watch are the quality of the workforce and fraudulent contracts for commission, among others.

Factors that are negatively correlated with commission payments are spread and size. The bigger and more diversified a company is, the more commissions are paid. As a company is getting bigger they do not always stress selling policies with larger amounts. Also, the more a firm is geographically diversified, the more it pays commissions.

IV. Conclusions

Contrary to the prediction, growth oriented firms concentrating on both term growth and ordinary growth do not necessarily record a reduction of profitability. One explanation for this result is that growing firms stress both term policies and ordinary policies. Thus, those firms can obtain enough profits to offset the reduced profits resulting from rapidly selling term policies. In general, customers' needs are diversified in general, and insurers have to hold many types of policies to satisfy customer needs.

Firms in a non-growing industry such as the life insurance industry show similar life cycle patterns. That is, in the life insurance industry, younger firms try to grow rapidly by making efforts to sell both term policies and ordinary policies.

Companies with more profits tend to pay more dividends. Company age is correlated with term growth, amount of premiums written, and geographic spread. Older firms are larger in size and are diversified in more states. The longer a firm has been in business, the more opportunities a firm has had to diversify. From the fact that profit is correlated with spread, older firms are higher in profitability than younger firms. Also, the significant correlation between size and dividend payment ratio implies that older firms have higher dividend payment ratios.

In general, the life insurance firms show similar management patterns to other firms in other industries. Thus, investors do not have to take special considerations with firms in the life insurance industry. Recently, many insurers have turned their attention to the pension business rather than life insurance. These efforts can be a sign that life insurance has little room for growth.

However, this research has its limits. Because the accounting system for insurance companies is complicated, a cross-sectional research approach may provide distorted results. Nonetheless, this study illustrates the general management style of life insurance companies in a saturated industry. Comparing styles among different industries may bring more interesting results.

Bibliography

- Best's Insurance Reports, Annual, Life and Health* 1999 edition (Oldwick, NJ: A.M. Best Company, Inc.).
- Boose, M. A., "Agency Theory and Alternative Predictions for Life Insurers: An Empirical Test," *Journal of Risk and Insurance*, 1990, Vol. LVII, No. 3, pp. 499-518.
- Doherty, N., "A Portfolio Theory of Insurance Capacity," *Journal of Risk and Insurance*, 1980, Vol. 47: 405-420.
- Gaver, Jennifer J. and Kenneth M. Gaver, (1993), "Additional Evidence on the Association between the Investment Opportunity Set and Corporate Financing, Dividend, and Compensation Policies," *Journal of Accounting and Economics*, 16: 125-160.
- Harrington, Scott E., New York Regulation of General Agency Expense Allowances, *Journal of Risk and Insurance*, 49 (1981): 564-82.

- Hirchey, M. and J. Pappers, "Regulatory and Life Cycle Influences on Managerial Incentives," *Southern Economics Journal*, 48 (1981): 327-34.
- Lovelace, G. M., *Life and Life Insurance*, Life Insurance Management Association, Hartford 5, Connecticut.
- Mayers, David, and Smith, Clifford, (1981), "Contractual Provisions, Organizational Structure, and Conflict Control in Insurance Markets," *Journal of Business*, 54 (July), 407-34.
- _____, (1982), "On the Corporate Demand for Insurance," *Journal of Business*, 55, no. 2 (April): 281-96.
- _____, (1987), "Corporate Insurance and the Underinvestment Problem," *Journal of Risk and Insurance* (March), pp. 45-54.
- _____, (1989), "Executive Compensation in the Life Insurance Industry," Working Paper. Rochester, N.Y.: University of Rochester.
- _____, (1990), "On the Corporate Demand for Insurance: Evidence from the Reinsurance Market," *Journal of Business*, 63: 19-40.
- Masulis, R., and B. Trueman, "Corporate Investment and Dividend Decisions under Differential Personal Taxation", Working paper, Anderson Graduate School of Management, UCLA, 1986.
- McNamara, Michael, and S.Ghon Rhee, "Ownership Structure and Performance: The Demutualization of life Insurers", *Journal of Risk and Insurance*, 1994 Sep., Vol. 46, p. 3.
- McNicholson, M. and G. Wilson, "Evidence of Earnings Management from the Provision for Bad Debts," (Working paper, Stanford Univ. 1988).
- Mehr, R. I., *Life Insurance Theory and Practice*, 4th ed. 1970, Austin: Business Publications, Inc.
- Miller, M. and F. Modigliani, "Dividend Policy, Growth and the Valuation of Shares," *Journal of Business*, 34, October 1961, pp. 411-33.
- Miller, M. and M. Scholes, "Rates on Return in Relation to Risk: A Re-examination of Some Recent Findings", in Jensen, ed., *Studies in the Theory of Capital Markets*. Praeger, New York, 1972, pp. 47-78.
- Ohlson, James, "Earnings, Book Values, and Dividends in Equity Valuation", *Contemporary Accounting Research*, Vol. 2, Sprong, 1995, pp. 661-687.