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Demutualization in the Life Insurance Industry: A Study of Effectiveness*

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Abstract

The regulatory and competitive environment in the life insurance industry has changed dramatically in recent years. We investigate the effectiveness of demutualization as a strategic response to the challenges posed by these sweeping changes. The study finds that the demutualized firms generally have implemented a successful strategy based on higher growth, greater profitability, cost effectiveness and shifts in product mix. Also, we find that management takes greater risk in the investment portfolio. In addition, demutualization unlocks value lying dormant in the mutuals' surplus. The paper concludes that the demutualized firms have generated substantial excess returns over the several market indexes, creating significant economic value.

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Introduction

The pace of demutualization among major U. S. life insurance companies has increased sharply since the mid-1990s. Five of the fifteen largest U.S. life insurers demutualized between 1997 and 2001, and the largest, Metropolitan, demutualized in 2000. Ten other major life insurance companies, with total assets in 2003 of \$775 billion, demutualized over the same time period.

Demutualization is the process of converting a mutual life insurance company which is owned by its policyholders into a publicly traded stock company owned by shareholders, pursuant to a plan of conversion approved by policyholders and state regulators. Mutual life policyholders may receive stock, cash and/or policy credits in exchange for their ownership interests in the old mutual insurance company. In some cases, policyholders receive only subscription rights to buy shares of stock of the newly formed company. In some other cases, membership rights are transferred to a mutual holding company (MHC) which owns a newly formed subsidiary stock life insurance company.

The reasons for demutualization are the marked changes in the regulatory and competitive environment in the life insurance industry in the recent past. These changes include: (1) the fact that consumers have shown declining interest in the traditional life insurance products of risk bearing and transfer, while revenues from the wealth management/annuity business have offered new growth opportunities; (2) deregulation of the financial services industry, culminating in passage of the federal Gramm-Leach-Bliley Act in 1999, which demolished the traditional barriers between commercial banking, insurance, and investment banking; (3) changes in the Internal Revenue Code that eliminated the tax advantages of a mutual insurer; and finally, (4) increasing interest shown by foreign life insurance companies in the U.S. market.

The purpose of this paper is to investigate the effectiveness of demutualization in the life insurance industry as a strategic response to changes in the financial services market. The study also tests whether life insurers have generated economic value following the process of demutualization.

Mutual or Stock

In a mutual life insurance company, the policyholders own the company. They are simultaneously both insureds and insurers. Policyholders own the right to vote to elect the members of the Board of Directors, to receive policy dividends and to receive the proceeds from the sale of the company's assets in the event of insolvency and dissolution. As members of a mutual, the policyholders receive insurance at the lowest possible cost, without the necessity of sharing profits with stockholders. In the stock form of organization, the stockholders possess the right to vote for the Board of Directors, share in the profits, and they own the assets of the company.

The mutual form of organization serves, and has served for many years, a useful purpose in the life insurance business. It offers stability, which is important, since the life insurance policy by its nature involves a very long-term contractual obligation. Policyholders' interests are paramount in the mutual form of organization and there are no conflicts with shareholders whose interests may be more short-term in nature. However, there are at least three major drawbacks: (a) the management of a mutual may be disposed to seek personal benefits or to indulge in "expense preference behavior" [14] due to a lack of policyholder monitoring [7]. The large numbers of policyholders, who are widely dispersed, and the limited availability of information about mutuals, make the cost of monitoring the behavior and performance of management very high. Indeed, policyholders are not inclined to monitor management closely. (b) The management of a mutual company may be risk averse in order to maintain its tenure and security. (c) In the life insurance industry firms are required to maintain a minimum ratio of net worth to premiums written. Since the mutuals have to rely mostly on retained earnings as the source of net worth, the mutual form of organization inherently limits the capacity for expansion of revenues. For these reasons, the mutuals tend to be managed conservatively and do not strive for competitive returns.

The stock form of organization offers certain advantages over the mutuals. Stock life insurance companies are organized to generate a profit for their stockholders, and the stockholders monitor management individually and collectively through the capital markets. Information on these publicly owned companies is widely available, and management is expected to be accountable to stockholders. As a consequence, management may tend to be more adaptive to changing competitive pressures in the insurance industry. The stock form of organization also offers flexibility if the firm wishes to acquire, or be acquired by, another firm. A stock company has access to the capital markets for funds to finance acquisition and may use its own stock as currency in these transactions. Finally, a stock company can issue equity in the market to increase its capital base and hence the capacity to expand its volume of business. A survey of mutual insurers reveals that the most important factors in the decision to demutualize are to gain the ability to access additional capital, to form affiliations with other financial services firms through subsidiaries, mergers and acquisitions, and to compensate and motivate managers [3].

The new era of a more highly evolved market of empowered and sophisticated customers seeking wealth management in a deregulated financial services industry, and global competition in the life insurance market, makes traditional life insurance, as the main line of business, obsolete. The firms could meet these new challenges by implementing a new strategy based on efficiency, adaptability, growth, and the development and expansion of new product lines. The stock form of organization enables this process, since management can take a more entrepreneurial role entailing higher operating, financial and market risks. In this form of organization, managers can be evaluated on market-based performance criteria and awarded market determined incentive compensation such as stocks and options. This is in complete contrast to management's expense preference behavior in mutuals.

The Process of Demutualization

Demutualization is a lengthy, complex and expensive process. A company which proposes to undertake demutualization must adhere to the laws in its state of domicile. The plan of demutualization

requires prior approval of the policyholders and the state regulators. Since, mutual life insurers accumulate surplus over a long period of time, an actuarial determination must be made regarding the distribution of surplus to past and existing policyholders. In addition, the company must determine the amount of “blocked assets” necessary to fulfill the future dividend interests and promised benefits of the existing mutual policyholders

There are two categories of demutualization: partial and full demutualization. Partial demutualization, commonly called the Iowa method, is accomplished by the formation of a mutual holding company (MHC) which owns at least 50.1% of a newly formed subsidiary stock insurance company. In the MHC method, policyholders’ interests are automatically converted into membership interests in the MHC, while the policy contracts are transferred to the stock subsidiary. Policyholders do not receive any distribution of accumulated surplus. Policyholders, regulators and investors generally have not been satisfied with this method of conversion since policyholders lose control of the operating subsidiary with out any compensation, and management, as well, is not fully accountable to investors and the capital markets.

A full demutualization can be accomplished in one of two ways -- the subscription method, commonly called the Illinois/Pennsylvania method, or the New York method whereby surplus is fully transferred to policyholders. In the Illinois/Pennsylvania method, non-transferable subscription rights are given to the policyholders. These rights allow the policyholders to buy shares in the new stock company with cash. Policyholders do not get any compensation in either cash or stock. These rights are perishable and have no market value. Advantages to this method are that it does not deplete surplus and can be used for raising cash resources from the existing policyholders. However, this method is controversial and may invite policyholder lawsuits. Only a few states have statutes requiring this method of conversion.

The New York method of full demutualization, permitted in most states, is where the policyholders receive stock, cash and/or policy credits for their ownership rights in the mutual organization. This has been the most widespread method used in the recent past.

As an example of full demutualization using the New York method, the Prudential Insurance Company in 2001 gave 454.6 million shares to the policyholders directly and in addition sold 110 million shares to the public at \$27.50 per share. Part of the \$3 billion in proceeds was paid to cash-out small policyholders and to other policyholders choosing not to receive shares of stock in the new company.

This study analyzes the operating and market value performance of life insurers which have gone through full demutualization using the New York method. Reasons for choosing this population for study are several. First, under the New York method, accumulated surplus is fully transferred to the existing policyholders through the creation of new, marketable securities. Second, because of the absence of complete transfer of wealth, other methods of demutualization are controversial and litigious, and, as such, are viewed as having had unsatisfactory experience. Finally, in these other methods, management is not fully accountable to shareholders and the financial markets.

Previous Research

Several articles have examined the comparative performance associated with different types of governance structures in the life insurance industry. It is well established in the literature that stock life insurance companies have been more effective than mutuals in minimizing costs [2,6,8,12]. Demutualized life insurance firms have also been shown to demonstrate greater efficiency in their operations [9]. In addition, the stock form of organization is correlated with a higher degree of financial and asset risk [1]. Other studies [4,5,13] have identified the salient operating and financial characteristics of firms likely to demutualize. However, these studies generally involve dated sample periods and they do not distinguish between full and partial demutualizations. Some of the previous studies use a sample of both life and non-life companies together. Prior studies have not included measures of strategic and behavioral changes, such as choices regarding product focus, and have not attempted to calculate economic value created following demutualization.

The contributions of this paper are: (1) to compare the pre- and post-demutualization performance using a sample restricted to life insurance companies which used the full, New York method,

of demutualization. The study examines firms that have recently (since 1997) demutualized, (2) to assess post-demutualization behavioral and strategic changes of management, and (3) to compare the stock returns of these life insurance firms to the returns of several market indexes in order to determine the economic value created following demutualization.

Strategic and Behavioral Measures

This study identifies eleven major life insurance companies that demutualized between 1997 and 2001. These firms generate about \$104 billion in annual revenues, which represents the equivalent of 20% of the U.S. life insurance market. The names of these companies and their corresponding year of conversion are described in Exhibit 1.

Exhibit 1

Demutualized Companies and Year of Demutualization

Company Name	Year of Demutualization	Company Name	Year of Demutualization
AmerUS Life Insurance Company	1997	Phoenix Life Insurance Company	2001
Canada Life Assurance Company	1999	Principal Life Insurance Company	1998
John Hancock Life Insurance Company	2000	Prudential Insurance Company of America	2000
Manufacturers Life Insurance Company	1999	Standard Insurance Company	1999
Metropolitan Life Insurance Company	2000	Sun Life Assurance Company of Canada	2000
MONY Life Insurance Company	1998		

The study hypothesizes that demutualizing life insurance companies will implement a new strategy which contrasts sharply with the old mutual strategy of limited growth, emphasis on insurance products, risk aversion and the traditional expense preference behavior of management. The new strategy should embody higher profitability and efficiency, shifts towards newer product lines, higher growth, and

greater risk taking in asset management and capital structure. The new strategy can be characterized by the following five sets of quantifiable measures:

1. Profitability and Cost Efficiency Measures:

Four variables describe the changes in profitability and cost efficiency:

- Net Operating Gain to Total Revenue: NOG/NPD
- Net Operating Gain to Total Assets: NOG/TA
- Return on Equity: ROE
- Revenue to Total Assets: NPD/TA

The first variable represents the net profit margin as a percent of an insurer's revenue. Revenue, denoted by Net Premiums Written and Deposits (NPD) includes (a) insurance premiums, and (b) income from wealth and pension fund management. Similarly, Net Operating Gain (NOG) includes net income from both insurance operations and wealth and pension fund management. The second variable (NOG/TA) is the return on assets (ROA). The third variable, ROE, is net income as a percent of equity. The fourth variable (NPD/TA) describes the efficiency of asset utilization. A successful implementation of the new strategy will show an increase in each of these variables in the post-demutualization period.

2. Growth Measure

The year over year change in premiums written and deposits received (NPD), describes the growth in the firm's revenues. It is expected that the growth rate will increase as demutualization allows the firms to increase their capital base and hence the capacity to expand.

3. Product Portfolio Measures

The companies are expected to shift their product focus after demutualization to newer and faster growing financial services products. The traditional lines of individual life insurance (including accident and health) have stagnated, and become more competitive and less profitable. It is expected that

management will shift its emphasis from individual insurance lines to (i) commercial insurance lines, such as group life and accident and health, and/or (ii) to the wealth and pension fund management business.

The study uses three variables to indicate product share shifts: (1) the ratio of individual life premiums as a percent of NPD, which is expected to decline after demutualization; (2) group insurance premiums as a percent of NPD. This ratio could increase after demutualization as companies diversify out of the individual insurance lines of business. However, group insurance is a very competitive business with sophisticated buyers who have access to extensive pricing information. As a result, this line of business may offer limited opportunities, and therefore it is difficult to anticipate the direction of change in this variable. (3) The third product line variable calculates the ratio of the revenue from the wealth and pension fund management business as a percent of NPD. This variable is expected to increase as life insurance companies pursue revenue opportunities in newer and growing markets.

4. Debt Management

Management may be willing to take additional risk in the capital structure in order to leverage up profitability for stockholders. Also, the firms may increase the debt ratio to finance the needs of product innovation and expansion. Since demutualization increases transparency, the firms may find debt less costly and more convenient. The study hypothesizes that (1) the debt to asset ratio, and (2) the use of long-term debt, as reflected in the ratio of All Other Liabilities to Total Assets (AOL/TA), will increase.

5. Asset Risk Management

In order to generate higher returns, management in newly demutualized firms, is expected to take additional risk in managing the firm's assets. The percentage of assets invested in non-investment grade bonds depicts the riskiness of the asset portfolio. The ratio of Non-investment Grade Bonds / Capital, (NIGB / C), is a measure of asset risk management, and is expected to increase.

Methodology and Test Data

In order to assess post-demutualization changes, eleven behavioral and strategic variables, as summarized in Exhibit 2, were calculated on the companies for their pre- and post- demutualization periods. The test periods consisted of the 3-years prior and the 3-years subsequent to demutualization. Data were obtained from A. M. Best Aggregates and Averages, Life/Health edition, for the relevant years. Averages for all eleven companies were compiled separately for the pre- and post-demutualization periods. An Index of Change for each variable was calculated by dividing the post demutualization values by the pre-demutualization numbers. The Index of Change is reported in column three of Exhibit 2. The findings and interpretation are discussed below.

The study also investigates how widely the new strategy was implemented. For this purpose, a Diffusion of Change Index was calculated for each variable. The Diffusion of Change index describes the proportion of companies that achieved the hypothesized direction of change for each strategic and behavioral variable. Exhibit 3 reports the results.

Exhibit 2
Index of Change in Strategic and Behavioral Variables:
Post- to Pre-Demutualization

	Hypothesized Direction of Change	Index of Change
Profitability and Cost Efficiency Measures		
Net Operating Gain to Total Revenue	Increase	1.433
Net Operating Gain to Total Assets	Increase	1.465
Return on Equity	Increase	1.317
Net Premiums Written / Total Assets	Increase	1.015
Growth Measure		
Change in Net Premiums Written (NPD)	Increase	2.592
Product Line Measures		
Individual Life & A&H / NPD	Decrease	0.922
Group Life and A&H Premiums / NPD	Uncertain	0.947
Revenues from Wealth and Pension Funds Management / NPD	Increase	1.034
Risk Taking		
Non-investment Grade Bonds to Capital	Increase	1.323
Debt Management		
Total Debt / Total Assets	Increase	0.996
All Other Liabilities / Total Assets	Increase	0.990

Exhibit 3
Diffusion of Change in Strategic and Behavioral Variables

Variable Name	Hypothesized Direction of Change	Companies Experiencing the Hypothesized Change	
		Number	Proportion
Profitability and Cost Efficiency Measures			
Net Operating Gain to Total Revenue	Increase	7	64%
Net Operating Gain to Total Assets	Increase	9	82%
Return on Equity	Increase	9	82%
Net Premiums Written / Total Assets	Increase	5	45%
Growth Measure			
Change in Net Premiums Written (NPD)	Increase	7	64%
Product Line Measures			
Individual Life & A&H / NPD	Decrease	9	82%
Group Life and A&H Premiums / NPD	Uncertain	3	27%
Revenues from Wealth and Pension Funds Management / NPD	Increase	8	73%
Risk Taking			
Non-investment Grade Bonds to Capital	Increase	9	82%
Debt Management			
Total Debt / Total Assets	Increase	7	64%
All Other Liabilities / Total Assets	Increase	7	64%

Findings and Interpretation

As Exhibit 2 shows, all of the variables, except for debt management, have changed in the direction that was hypothesized. In the first place, firms after demutualization have achieved significant gains in cost efficiency, profitability and return on equity. Two variables: (1) NOG to TA and (2) NOG to NPD, have increased by more than 43 percent, and (3) ROE has increased by 32 percent. Second, the firms have increased the growth rate in NPD by 160 percent. Third, the demutualized companies have made significant shifts away from traditional individual life insurance business (decline of 8%) to newer

sources of revenue in wealth and pension fund management (an increase of 3.4%). Fourth, the firms are taking, as anticipated, higher risks in managing their assets; the ratio of Non-investment Grade Bonds / Capital has gone up by 32 percent.

The Diffusion of Change Index reinforces these findings. A very high proportion of demutualized firms achieved increases in profitability (82%), return on equity (82%) and efficiency in cost control (64%). Substantially higher growth rates were attained by 64% of the firms. A very large number of firms (82%) decreased the share of revenue from traditional individual life insurance business; 73% of the firms increased the share of revenues derived from wealth and pension fund management business. As anticipated, 82% of the firms have taken additional risk in managing their assets. Finally, 64% of the firms have increased leverage by taking on more debt in their capital structure.

The data analysis demonstrates that the companies have implemented thoroughgoing and widespread changes in strategy and behavior after demutualization. This finding is particularly robust in view of the time period for the study which covers both expansionary and lean economic times. Firms undertaking demutualization are pursuing higher growth rates, cost effectiveness, greater profitability, higher risk in asset composition and a shift towards revenues from wealth and pension funds management business.

Unlocking Economic Value

The process of demutualization, via the New York method, can create economic value for several reasons. First, the policyholders' surplus (largely retained earnings) under mutuals is transformed into marketable shares through the creation and distribution of stock to existing policyholders, as well as an initial public offering; thus, stockization liquifies what has been illiquid. Also, stockization of mutual life insurance companies broadens the set of available securities for investors and thus it "completes the market" [10].

Second, a mutual life insurer's conversion to the stock form of organization can create economic value as the firms implement new competitive strategies, become transparent in reporting and governance structure, and develop opportunities to participate in the international merger and acquisition market.

It is hypothesized that the successful creation of economic value will be reflected in higher stock price performance. The study tests this hypothesis by calculating the long-run, compound annual rate of return for each company and compares this with the compound annual rates of return of the corresponding period for the Dow Jones Industrial Average (DJIA), the S&P 500 Index and the NASDAQ Insurance Company Index. The annual rates of return have been calculated for three years from the end of the month of demutualization in each case, using the CRSP database. Exhibits 4 (a) and 4 (b) report the results.

As may be observed, long-run excess returns are widespread. Nine out of the eleven demutualized companies' stocks outperformed the market portfolio as represented by the S&P 500 index; eight exceeded the returns on the DJIA; and six bested the returns of the NASDAQ Insurance Company Index. This finding is especially significant since the comparison periods cover different market cycles. This is contrary to the previous research which finds that IPOs have demonstrated long-run underperformance relative to the benchmarks [11]. To illustrate the magnitude of the excess returns, if an investor had bought the stocks of these eleven companies at the end of the month of demutualization in each case and held it for three years, the investor would have earned an annual return of 144% over the DJIA, 176% per annum above the S&P 500 Index, and 35% over the NASDAQ Insurance Company Index, as shown in Exhibit 4 (b).

Clearly, liquification of policyholders' surplus and changes in competitive strategy and governance implemented by the newly stockicized life insurance firms have created additional economic value. This economic value is available for distribution to the company's various stakeholders, including policyholders, executives, employees and the community.

Exhibit 4 (a)
Unlocking Economic Value in the U.S. Life Insurance Industry
Compound Annual Rates of Return, 3 years Post-Demutualization

Company Name	Month and Year of demutualization	Company Returns	Dow Jones Industrial Average	S&P 500 Index	NASDAQ Insurance Company Index
AmerUS	January 1997	6.58	19.06	23.07	9.46
Canada Life	December 2001	3.18	2.37	1.82	12.62
John Hancock	January 2000	16.5	-9.71	-15.00	8.43
Manufacturer's Life	September 1999	21.03	-9.78	-14.02	3.00
Metropolitan	June 2000	10.53	-4.90	-12.50	13.05
MONY	November 1998	0.41	2.62	-.70	10.42
Phoenix	June 2001	-13.00	-0.21	-2.33	10.46
Principal	October 2001	18.82	3.38	2.19	10.62
Prudential	December 2001	18.31	2.47	1.82	12.61
Standard Insurance	April 1999	34.46	-2.67	-6.05	6.46
Sun Life	March 2000	20.21	-9.89	-17.28	4.92

Exhibit 4 (b)
Unlocking Economic Value in the U.S. Life Insurance Industry
Compound Annual Excess Rates of Return

Company Name	Excess Returns over DJIA	Excess Returns over S&P 500 Index	Excess Returns over NASDAQ Insurance Company Index
AmerUS	-12.48	-16.49	-2.88
Canada Life	0.81	1.36	-9.44
John Hancock	26.21	31.50	8.07
Manufacturer's Life	30.81	35.05	18.03
Metropolitan	15.43	23.03	-2.52
MONY	-2.21	1.11	-10.01
Phoenix	-12.79	-10.67	-23.46
Principal	15.44	16.63	8.20
Prudential	15.84	16.49	5.70
Standard Insurance	37.13	40.51	28.00
Sun Life	30.10	37.49	15.29
Total Excess Return	144.29	176.01	34.98

Conclusion

This study examined eleven major life insurance companies with significant market share that undertook the full, New York method of demutualization between 1997 and 2001. The results demonstrate both a changed managerial behavior and the employment of a new competitive strategy after demutualization. Management in these companies has successfully implemented a strategy that is based on higher growth, greater profitability, improved cost efficiency, and innovations in product offerings. These firms take more risk in managing their portfolio assets. The stock form of organization increases transparency in reporting and governance, and provides opportunities for firms to engage in mergers and acquisitions. In addition, the demutualized firms offer new securities for investors and unlock the value lying dormant in the mutual policyholders' surplus. For these reasons, the long-run market returns of demutualized companies have outperformed various market indexes, including the NASDAQ Insurance Company Index, creating economic value. This finding is contrary to a well-established phenomenon of long-run underperformance of IPOs [11]. It appears that demutualization promotes efficiency in the life insurance industry as well as in the capital markets and hence can be viewed as socially desirable.

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