Changes in Ownership Structure: Theory and Evidence from Life Insurer Demutualizations

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Abstract: Mayers and Smith (1981) extended Jensen and Meckling's (1976) seminal work on organizational structure and agency theory, and argued that the costs of controlling the owner-manager conflict are higher for mutual insurers than for stock insurers because of fewer and less effective monitoring and control mechanisms in place for mutuals. Although greater access to capital is an oft-cited reason for demutualization, and the need for access to capital likely is justifiable, findings indicate that demutualizing insurers had higher ratios of surplus to assets than other mutuals that did not convert to the stock form. An empirical examination of several organizational structure hypotheses indicates that the level of free cash flow is significantly related to the likelihood of demutualization, and demutualization may be motivated by expropriation or by attempts to control associated agency costs.

INTRODUCTION

The presence of diverse organizational structures competing in the same product market naturally focuses attention on the differences in organizational structure and the implications of these differences. In the life insurance industry, the two predominant forms of ownership are the stock and mutual forms. While in 1997 only about 92 of the 1,500 life insurers are mutuals, these insurers control more than one-third of the 195

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million individual policies and roughly the same ratio of the industry's $2 trillion in assets, according to A.M. Best. Demutualization, the process of converting from a mutual to a stock company, is examined in this paper. The importance of change in ownership form is clear, given the large amounts of assets and surplus controlled by mutual insurers.

Interest in the possible benefits of conversion and related activity has escalated, as evidenced by the attention it has garnered from the NAIC, the *Wall Street Journal*, the *New York Times*, the Center for Insurance Research, the federal court system, and recent state legislation (e.g., mutual holding companies, subscription rights, and redomestication). Demutualization activity has increased even though the process is costly and arduous. Since 1902, 39 mutual life insurers have demutualized, and 11 of these have occurred since 1984 (A.M. Best), with several changes in ownership form pending.

Demutualization gives rise to various legal, financial, fiduciary, and related issues. The goal of this paper is to examine several issues related to demutualization, foremost among these being the access to capital hypothesis, in order to shed light on possible motivations for the demutualization activity.

On the basis of an empirical analysis of financial statement variables, this study discusses expropriation and policyholder rights as they relate to ownership form. The paper examines (1) free cash flow, (2) access to capital, (3) possible wealth expropriation around the time of conversion, (4) expense preference behavior, and (5) loss ratios. This research identifies practical implications of conversion (positive and negative) that are important to the various parties interested in demutualization, including insurers and their management, policyowners, investors, taxpayers, and regulators. Organizational structure is discussed in the next section. We then examine the relationship between organizational form, theoretical concepts, and financial variables. The paper then describes the sample, data, and methodology. Following these sections we present and discuss the results of the study. The last section provides implications and conclusions of the study.

ORGANIZATIONAL STRUCTURE

Organizational structure literature and agency theory posits a cost/benefit tradeoff between the two dominant forms of life insurers—stocks and mutuals (Fama and Jensen, 1983; Hansmann, 1985; Mayers and Smith, 1981, 1986, and 1994; Smith, 1986; and McNamara and Rhee, 1992). Mutual companies aim to reduce contracting costs by unifying the interests of customers and owners in a single group of claimholders. This potential benefit, however, comes at the cost of less effective control over managers.

Stock companies incur agency costs associated with resolving the owner vs. customer conflict, but provide greater opportunities and incentives to exert control over management. As noted by Fields (1988), "[d]ifferences in ownership form can substantially change the relationship between managers and owners, and therefore alter the costs of monitoring management behavior." When a life insurer demutualizes, one set of costs and benefits is traded for another set of costs and benefits.

Jensen and Meckling's (1976) seminal work led to research examining organizational structure issues from an agency theory perspective (e.g., Mayers and Smith, 1981; Fama and Jensen, 1983; Hansmann, 1985). Early organizational structure research generally was performed on a cross-sectional basis, comparing performance variables of separate samples of mutual and stock financial institutions. These studies, in general, reported that mutual organizations were "less efficient" or exhibited performance that was inferior to stock organizations relative to the set of performance measures utilized (e.g., Nicols, 1967; Spiller, 1972; Frech, 1980; O'Hara, 1981; Hadaway and Hadaway, 1981).

THEORETICAL CONCEPTS RELATED TO DEMUTUALIZATION

Previous literature highlighted several important issues related to demutualization. This section examines the relationship between organizational form and theoretical concepts, and develops the framework for hypotheses related to demutualization.

Free Cash Flow

Free cash flow (Jensen, 1986) is the residual that exists after a company has invested in all beneficial (positive net present value) projects. High free cash flow and the potential that these resources may be misdirected increase agency problems inherent in the diffusely owned firm. Mayers and Smith (1981) and Wells, Cox, and Gaver (1995) argued that the relative level of free cash flow, and hence the corresponding agency costs associated with free cash flow, should be greater for mutual than for stock insurers.[1] Wells et al. tested this hypothesis on a sample of mutual and stock life insurers and found that the mutual life insurers held significantly higher free cash flow positions. Cole, McNamara, and Wells (1995) analyzed relative free cash flow around the time of demutualization and found a significant reduction in relative free cash flow after a mutual life insurer converts to a stock life insurer. Organizational form and its relationship to free cash flow also has been examined by Griffin (1988), Lehn and Poulsen (1989), Gupta

and Rosenthal (1991), Loh (1992), Gibbs (1993), and Damodaran, John, and Liu (1997). These studies provided evidence supporting the free cash flow motivation for financial restructuring. In order to better control the agency costs of equity, it is expected that the greater the level of free cash flow, the higher the likelihood of demutualization.

Access to Capital Markets

Mutual insurers have no publicly traded ownership rights. As such, mutual insurers have obtained additional capital in two primary ways other than demutualization: (1) establishing a publicly owned subsidiary (e.g., Metropolitan Life), and (2) issuing surplus notes (e.g., John Hancock). In a survey of officers of stock insurers, Greene and Johnson (1980) reported that the ability to diversify and acquire other firms is an important advantage of the stock form over the mutual form, since the stock form allows insurers to issue additional shares when an infusion of capital is needed.[2] Other articles that discuss the access to capital argument include West (1995), Hemmings and Seiler (1995), Pomerantz (1996), and Scism (1997).

Converting to the stock form for the purpose of gaining access to capital markets implies that the insurer needs financing to fund positive net present value projects. Free cash flow exists because a firm has cash, yet nothing profitable on which to spend it (see Wells et al., 1995). Thus, higher levels of free cash flow suggest a lower likelihood of accessing capital markets via demutualization to fund positive net present value projects, and vice versa.

However, a firm that has free cash flow after exhausting all positive net present value projects within its investment opportunity set still may desire to access capital markets. That is, to undertake profitable projects (such as expansion into new product and geographic markets or to acquire another insurer) that are (currently) beyond the mutual insurer's investment opportunity set, access to capital markets may be beneficial. Through demutualization, capitalization may be enhanced to the point that additional positive net present value projects may be undertaken—i.e., the investment opportunity set will be enlarged. In this sense, the existence of free cash flow does not preclude the desire to gain access to capital markets. The lower the relative level of surplus, ceteris paribus, the higher the expected probability that an insurer will demutualize in order to gain access to capital markets.

Wealth Expropriation Around Conversion

The potential exists for wealth transfers around the time of conversion. Smith (1986) argued that shareholders might receive benefits from conversion at the expense of policyholders. Mayers and Smith (1986) found that

shareholders of mutualizing insurers were paid a premium for their shares. Masulis (1987) and Maksimovic and Unal (1993) detected significant abnormal returns after savings and loan demutualizations. The higher the relative levels of free cash flow and surplus that demutualizing insurers have, the more likely it would appear that the demutualizations are motivated, at least in part, by expropriation.[3]

Barriers to Conversion

The life insurer demutualization process transforms the mutual company by exchanging membership rights for valuable consideration (e.g., cash, additional policy benefits, and/or common stock of the new company) to the existing owners/policyholders. Steps in the demutualization process include obtaining approval for conversion from a super-majority of the directors, from the state insurance commissioner, and from the legally required percentage (generally two-thirds) of the voting policyholders (see Garber, 1986, and Hemmings and Seiler, 1995). In addition, a review may be required by the Securities and Exchange Commission and the Department of Labor, and a request for rulings may be requested from the IRS. The larger the mutual insurer, the more cumbersome this process is likely to be.[4] Therefore, with respect to the barriers to conversion process, larger mutuals would seem to be less likely to undergo the demutualization process.

Expense Preference Behavior

One form of management-imposed agency costs is expense preference behavior—the consumption of perquisites. Managers can express such preferences, Fields (1988) suggested, only if there exist positive monitoring costs for the owners of firms and market imperfections in the products market. Alchian and Demsetz (1972) argued that managers will act in their own best interests, as opposed to the interests of the owners of the firm. Williamson (1963) suggested that shirking is evidenced by management expending firm wealth on excessive staff and office appurtenances. Several studies report evidence of "shirking"—e.g., perquisite consumption that is taken because the cost incurred by owners to monitor management is too high to prevent it. Frech (1980) and O'Hara (1981) found that mutual organizations had higher expenses than stock organizations. Examining agency-specific results, Boose (1990) reported that mutual insurers have higher general expenses than stock insurers. Verbrugge and Goldstein (1981) noted that since managers of mutual (savings and loans) companies are not responsible to owners in the traditional way, and since these managers cannot share in the profits via the benefits of ownership, expense preference behavior may emerge. In this case, the greater the level of

perquisite consumption, the greater the potential benefit to policyholders from demutualization, and, therefore, we would expect a positive relationship. On the other hand, since demutualization is, to a large degree, dictated by the incumbent management, a greater level of perquisite consumption may be negatively related to the probability of demutualization.

Loss Ratios

The level of losses also may be related to the probability of demutualization. An insurer may have higher than average losses for a number of reasons, including poor underwriting and/or underpricing. Regardless of the reasons for a high loss ratio, insurers with sustained high loss ratios also are likely to experience an adverse impact on surplus, which may impede growth prospects and solvency of the firm, and thus increase the need for the firm to have access to capital. Higher loss ratios also may be associated with a higher probability of demutualization in that the stock form of ownership provides greater control over management. Conversely, incumbent management of an insurer with a poor loss ratio may be averse to creating the potential of surrendering control of the insurer, and thus demutualization may be negatively related to the loss ratio.

TESTABLE HYPOTHESES

Based on the framework developed in the foregoing discussion, the relationships of several variables to the probability of demutualization are formally stated in the following hypotheses:

H1: (+) The probability of demutualization is positively related to the level of free cash flow (free cash flow hypothesis and expropriation hypothesis).

H2a: (+) The probability of demutualization is positively related to the level of surplus and to the size of the insurer (expropriation hypothesis).

H2b: (–) The probability of demutualization is negatively related to the level of surplus (access to capital markets hypothesis).

H3: (–) The probability of demutualization is negatively related to the size of the insurer (barriers to conversion hypothesis).

H4a: (+) The probability of demutualization is positively related to the level of expenses (expense preference hypothesis).

H4b: (–) The probability of demutualization is negatively related to the level of expenses (management expense preference hypothesis).

H5a: (+) The probability of demutualization is positively related to the level of losses (loss ratio hypothesis).
H5b: (–) The probability of demutualization is negatively related to the level of losses (management loss ratio hypothesis).

The focus of this paper is on these hypotheses. The relationship of demutualization to insurer risk and locked-in effects has been examined by others, and is discussed later in this paper.

SAMPLE, DATA, AND METHODOLOGY

Sample and Data

The sample of demutualized life insurers is shown in Table 1. A total of 39 insurers demutualized during the sample period, and complete data were available for 26 of these firms. A limitation of the study is that hand-collection of the data precluded the use of data for all of the nonconverting mutual insurers in each year that a demutualization occurred. Rather, each insurer that demutualized is matched (by year) with two randomly selected mutual life insurers that did not demutualize. That is, matched-pair sampling is employed, which is common in this type of analysis. Demutualization approval dates are from 1902 through 1995, and data are from 1901 through 1994. That is, data are for the year prior to the year in which approval of the demutualization occurred, which should minimize the financial effect of the expenses related to demutualization. Data were obtained from *Spectator*, *The Unique Manual*, and *Best's Insurance Reports (Life-Health)*.

Methodology and Variables

Because the dependent variable is dichotomous (conversion or no conversion), this study employs the logit technique, which estimates the probability of an event or non-event on the basis of a set of independent variables. The logit demutualization model is developed to empirically test the various hypotheses. The logit methodology also has been applied to examine insurer insolvencies (BarNiv and Hershbarger, 1990; Carson and Hoyt, 1995), insurer mergers (Meador, Madden, and Johnston, 1986), and savings and loan demutualizations (Masulis, 1987). Mayers and Smith (1994) employed logistic regression to examine the managerial discretion, life-cycle, and regulation hypotheses as explanations for ownership structure for the property-liability insurance industry.

Because some important distributional assumptions under multivariate discriminant analysis (MDA) are violated (see Maddala, 1981), logit is

Table 1. Demutualizing Life Insurers

Company Name	Location	Formation Date	Demutualization Approval Date
American Reserve Life Ins. Co.	Omaha, NE	1924	1925
Brookings International Life Ins. Co.	Brookings, SD	1934	1966
California Life Ins. Co.	Los Angeles, CA	1920	1947
Central Life Assurance Society	Des Moines, IA	1896	1902
Dakota Mutual Life Ins. Co.*	Watertown, SD	1906	1909
Equitable Life Assurance*	New York, NY	1859	1992
Equitable Beneficial Mut. Life Ins. Co.	Philadelphia, PA	1898	1977
Eureka Life Ins. Co.*	Baltimore, MD	1882	1918
Farmers Union Mutual Life Ins. Co.*	Des Moines, IA	1922	1933
Franklin Life Ins. Co.*	Springfield, IL	1884	1910
Guarantee Mutual Life Co.*	Omaha, NE	1901	1995
Grinnell Mutual Life Ins. Co.*	Grinnell, IA	1965	1988
Inter-State Assurance Co.*	Des Moines, IA	1908	1985
Industrial Life and Health Ins. Co.*	Atlanta, GA	1891	1918
Midland Mutual Life Ins. Co.*	Columbus, OH	1905	1994
Mutual Life Ins. Co. of Baltimore*	Baltimore, MD	1860	1928
National Equity Life Ins. Co.*	Little Rock, AK	1923	1927
National Heritage Mutual Life Ins. Co.*	Chicago, IL	1879	1966
National Old Life Ins. Co.*	Little Rock, AK	1926	1930
National Term Life Ins. Co.*	Zionsville, IN	1960	1985
Northwestern National Life Ins. Co.*	Minneapolis, MN	1885	1927
Old Equity Mutual Life Ins. Co.*	Chicago, IL	1950	1984
People's Life Ins. Co.*	Frankfort, IN	1906	1910
Pyramid Life Ins. Co.*	Little Rock, AK	1925	1928
Reliable Life and Casualty Co.	Madison, WI	1922	1965
Republic National Life Ins. Co.	Dallas, TX	1928	1930
Reserve Loan Life Ins. Co.	Indianapolis, IN	1897	1909
Rushmore Mutual Life Ins. Co.*	Rapid City, SD	1937	1989
St. Louis Mutual Life Ins. Co.*	St. Louis, MO	1857	1930
States General Life Ins. Co.	Dallas, TX	1952	1955
State Mutual Life Assurance Co. of Am.*	Worcester, MA	1844	1995
Surety Life Ins. Co.	Salt Lake City, UT	1936	1950
Texas Mutual Reserve Life Ins. Co.	Tyler, TX	1934	1935
Union Mutual Life Ins. Co.*	Portland, MA	1848	1986
Utah Farm Bureau Mutual Life Ins. Co.*	Salt Lake City, UT	1937	1984
Viking Life Ins. Co.	Minneapolis, MN	1912	1972
Washington Life Ins. Co. of America	Lafayette, LA	1952	1953
West States Ins. Co.*	Los Angeles, CA	1906	1973
Western Mutual *	Fargo, ND	1933	1944

*Complete data available and insurer included in the sample.

the preferred statistical method. Correlations among the independent variables and variance inflation tests indicate that the variables included in the model are not overly correlated with another. Because the focus of this study is not on classificatory power, and because of the relatively small size of the sample in this study, the jackknife validation method is used.[5]

The probability that a life insurer will demutualize is hypothesized to be a function of several independent variables, as specified in the following equation:

$$\begin{aligned} CONVERT = a + B_1\,FCFASSET + B_2\,SURASSET + B_3\,ASSET \\ + B_4\,EXPPREM + B_5\,LOSSPREM + e, \end{aligned} \quad (1)$$

where:

CONVERT = demutualized insurers (1), non-demutualized insurers (0);
FCFASSET = (+) free cash flow divided by admitted assets;[6]
SURASSET = (+/–) surplus divided by admitted assets;
ASSETS = (+/–) ln of admitted assets (inflation-adjusted), in millions of dollars;
EXPPREM = (+/–) expenses[7] divided by net premiums written; and
LOSSPREM = (+/–) losses[8] paid divided by net premiums written.

The magnitude of free cash flow relative to premiums collected may be related to the likelihood of demutualization. In order to better control the agency costs of equity, we expect a positive relationship between FCFASSET and the probability of demutualization. In addition, demutualization motivated by expropriation suggests a positive relationship between free cash flow and the probability of demutualization.

Surplus, the difference between assets and liabilities, represents a margin of safety for life insurers. Mutual insurers have less ability to raise capital via stock issuance in relation to stock insurers, and conversion to the stock form provides additional access to capital markets. Thus, surplus (relative to assets) is likely to be negatively related to demutualization. Conversely, if expropriation is the motivation for demutualizing, then surplus may be positively related to the probability of conversion. Surplus divided by admitted assets (SURASSET) is the variable employed to test these competing hypotheses.

The size of a life insurer (SIZE), as measured by the log of admitted assets (inflation-adjusted), is expected to be related to whether a life insurer demutualizes. A large mutual insurer may be an attractive target in terms of resources available for expropriation. Therefore, we might expect to see a positive relationship between insurer size and the likelihood of demutu-

alization. On the other hand, the demutualization process is expensive and time-consuming, and the result of demutualization is a radical change in organizational structure. Such an ominous change would occur more easily in a smaller enterprise, and thus size may act as a barrier to conversion.

Firms in which expense preference behavior is relatively high may be more likely to demutualize, in order to improve management monitoring, to afford greater control over management, and to provide incentive mechanisms such as stock options. In this case, a positive relationship is hypothesized between expenses relative to premiums (EXPPREM) and the probability of conversion. On the other hand, existing management may be reluctant to initiate the demutualization process if the result is likely to be a reduction in perquisite consumption. Thus, we might expect a negative relationship between expenses and the probability of demutualization.

The level of loss payments relative to premiums (LOSSPREM) may be related to the probability of demutualization. Higher loss payments relative to premiums lead to impaired capital and may be positively associated with the probability of demutualization in that the stock form of ownership provides greater access to new capital and more direct control over management. Conversely, incumbent management of an insurer with a poor loss ratio may be opposed to demutualization, since conversion would create the possibility of an unfriendly takeover. In this case, demutualization may be negatively related to the loss ratio. The variables employed to examine each of the hypotheses are summarized in Table 2.

RESULTS AND DISCUSSION OF EMPIRICAL ANALYSIS

Descriptive Statistics

Descriptive statistics are shown in Table 3 for the demutualizing and the nondemutualizing insurers. While most of the demutualizing insurers were relatively small in terms of assets, The Equitable Life Assurance Society demutualization (1992) is the notable exception. This insurer had assets of $50 billion in 1991, the year prior to its conversion. On a univariate basis, significant differences between the two subsamples are present. The demutualizing insurers were significantly smaller in terms of assets (ASSET) than the insurers that did not demutualize, and had significantly higher surplus to assets ratios (SURASSET) and expenses to premiums ratios (EXPPREM).

Table 2. Hypotheses and Variables Employed

	Hypothesis	Relationship to Probability of Demutualization	Variable
Hypothesis 1:	Free Cash Flow and Expropriation	+	Free Cash Flow / Adm. Assets
Hypothesis 2a:	Expropriation	+	Surplus / Adm. Assets
		+	Log of Adm. Assets
Hypothesis 2b:	Access to Capital	–	Surplus / Adm. Assets
Hypothesis 3:	Barrier to Conversion	–	Log of Adm. Assets
Hypothesis 4a:	Expense Preference	+	Expenses / Net Premiums
Hypothesis 4b:	Mgt. Expense Preference	–	Expenses / Net Premiums
Hypothesis 5a:	Loss Ratio	+	Losses / Net Premiums
Hypothesis 5b:	Mgt. Loss Ratio	–	Losses / Net Premiums

Table 3. Comparison of Demutualizing Life Insurers and Nondemutualizing Insurers

Variable	Mean	Median	Standard Deviation	Minimum	Maximum
Panel A: Life Insurers that Demutualize in the Following Year N = 26					
FCFASSET	.16	.03	.26	.00	.94
SURASSET	.16*	.05	.17	.02	.66
ASSET (log)	10.38***	9.82	3.01	6.53	17.73
EXPPREM	.49**	.51	.18	.09	.90
LOSSPREM	.66	.62	.49	.01	1.63
Panel B: Mutual Life Insurers that Do Not Demutualize N = 52					
FCFASSET	.05	.03	.05	.00	.17
SURASSET	.11*	.06	.09	.01	.41
ASSETS (log)	11.95***	10.62	2.23	8.00	16.43
EXPPREM	.40**	.35	.20	.13	1.03
LOSSPREM	.66	.58	.29	.18	1.27

NOTE: The difference in means between the demutualizing insurers and the nondemutualizing insurers is significant at the .01 (***), .05 (**), or .10 (*) level.

Empirical Results of Logistic Regression Model

The results of the estimation of equation (1) are shown in Table 4. Two of the five independent variables were significant in the model: the free cash flow variable (FCFASSET) was positive and significant, and the loss ratio variable (LOSSPREM) also was positive and significant.

Discussion of Hypotheses and Results

The hypotheses and results of the empirical analysis are discussed below.

Access to Capital Hypothesis. Access to capital is an oft-cited motivation for demutualization. In the 1995 demutualization of State Mutual, the Center for Insurance Research (Massachusetts) sought to block the insurer's conversion, claiming that the conversion plans were prejudicial to the ownership interests of the policyholders (West, 1995). In defense of the proposed conversion, the president and CEO of State Mutual suggested that demutualization would improve the insurer's access to capital, stating, "as a mutual company, we are severely limited in our ability to raise the permanent capital necessary to grow...." The Center for Insurance questioned the access to capital motivation, suggesting, "John Hancock raised money through surplus notes without a conversion, so one has to ask, what's going on?" (West, 1995).[9]

The results of the univariate analysis here indicate that demutualizing insurers are no less capitalized than mutual insurers that do not demutualize. Rather, mutual insurers that demutualize have significantly higher surplus to asset (SURASSET) ratios (mean equals .16) than mutual insurers that do not demutualize (mean equals .11). The access to capital rationale for demutualization is in contrast to the univariate results here. Results of the multivariate analysis indicate that the surplus to assets ratio (SURASSET) was not significantly related to the probability of demutualization, suggesting that demutualizing insurers are no less capitalized than the mutual insurers that do not demutualize. Therefore, results here do not support the rationale that a weak surplus position is a significant motivating factor in the decision to demutualize. Although the mutual insurers that converted were better capitalized than the mutuals that did not convert, access to capital still may have been a motivation for conversion in the sense that the converting mutuals also must compete with stock insurers that may have superior capitalization and greater access to capital.

Free Cash Flow Hypothesis. As discussed earlier, the relative magnitude of free cash flow may be related to the process of demutualization. Demutualization may be a useful method of controlling the agency costs of free

Table 4. Logistic Regression Estimation Results

Variable	Hypothesis	Expected sign	Value
INTERCEPT			2.02
FCFASSET	Free Cash Flow (H1) and Expropriation (H2a)	+	11.40**
SURASSET	Access to Capital (H2b)	–	
	Expropriation (H2a)	+	1.52
ASSET	Expropriation (H2a)	+	
	Barrier to Conversion (H3)	–	–.21
EXPPREM	Expense Preference (H4a)	+	1.08
	Mgt. Exp. Preference (H4b)	–	
LOSSPREM	U-W Loss Ratio (H5a)	+	3.19***
	Mgt. U-W Loss Ratio (H5b)	–	
–2 Log L			79.68***
Pseudo R^2			.40

*** and ** are significant at the .01 and .05 level, respectively.
NOTE: A Probit model was tested in addition to the logit model, and no significant differences from the results presented here were found.

cash flow. The significant and positive sign of the free cash flow variable in the multivariate analysis (FCFASSET) provides support for the free cash flow hypothesis. The finding suggests that the existence of agency costs associated with free cash flow is a motivating factor for some mutual insurers to demutualize. The greater these agency costs are for a particular mutual insurer, the more beneficial may be a change from the mutual form of ownership.

Expropriation Hypothesis. As discussed earlier, the potential exists for wealth transfers around the time of conversion. The higher the relative levels of free cash flow and surplus for demutualizing insurers, the more likely it would appear that the demutualizations are motivated, at least in part, by expropriation. The results of the univariate analysis provide evidence in favor of this hypothesis since the surplus to asset ratio (SURASSET) was significantly higher for demutualizing insurers. Results of the multivariate analysis provide evidence for the expropriation hypothesis in that the free cash flow variable (FCFASSET) was positive and significantly related to the probability of demutualization.

Barrier to Conversion Hypothesis. The larger the mutual insurer, the more cumbersome the demutualization process is likely to be. As discussed

earlier, larger mutuals may be less likely to have the need for capital to fund new projects. Results from the univariate analysis indicate that larger mutual insurers (ASSET) are less likely to undergo the process of demutualization, providing evidence in support of the barriers to conversion hypothesis. Results from the multivariate analysis for the ASSET variable are insignificant.

Expense Preference Hypothesis. Results of the univariate analysis indicate that expense to premium ratios (EXPPREM) are significantly higher for demutualizing insurers (mean equals .49) compared to mutual insurers that do not demutualize (mean equals .40). Results of the multivariate analysis indicate that mutual life insurers that have significantly higher expenses are not more likely to change ownership form in that the EXPPREM variable is not significant.[10] Recall that one possible motivation for conversion to the stock form is to improve management monitoring and incentive mechanisms that will lead to reduced expenses. Although this explanation is intuitively appealing, McNamara and Rhee (1992) found that expenses did not decrease significantly after demutualization.

Loss Ratio Hypothesis. Results of the multivariate analysis indicate that the losses paid to premium ratio variable (LOSSPREM) is positive and significantly related to the probability of demutualization. Conversion may be a means to raise capital to offset unfavorable underwriting results. Alternatively, insurers that demutualize may be in lines of business that have higher average loss ratios, and demutualization is a method to raise needed capital—e.g., to finance entrance into new lines of business. In addition, demutualization may provide greater opportunities and incentives for control over management, which may lead to greater control over insurer operations, thus improving the insurer's loss ratio. The positive and significant relationship between LOSSPREM and the probability of demutualization provides evidence against the notion that incumbent management attempts to estop conversion to avoid possible increased monitoring from conversion (the management loss ratio hypothesis).

RELATED ISSUES AND IMPLICATIONS OF DEMUTUALIZATION

Risk Implications

In a firm where ownership and control are separate, management has the incentive to choose projects from a risk class that may not maximize shareholder wealth. Organizational structure literature, in particular Mayers and Smith (1981), Smith (1986), Garven (1992), and Lamm-Tennant and Starks (1993), argues that stock insurance organizations will operate at

higher levels of risk than mutual insurance organizations. Lamm-Tennant and Starks (1993) found, using the variance of the loss ratio as a measure of risk, that stock property and liability insurers operate at a higher level of risk than mutual property and liability insurers. Thus when a life insurer demutualizes, the level of operating risk (probability of insolvency) may increase, which is important for policyowners, insurer managers, regulators, and state taxpayers. In addition, demutualization presents the possibility for takeover of the insurer. New management might change the riskiness of the insurer and/or the level of dividends to policyowners, among other possible changes.

"Locked-in" Effects

Agency problems associated with locked-in effects develop when it is costly for claimholders to alter their present position. The classic locked-in problem is that of a shareholder who owns shares that have appreciated in value. Since a tax penalty is incurred when the gain is realized, the stockholder is "locked in" to his/her present position. Hansmann (1985) argued that policyowners of insurance contracts are in an analogous position. It may be costly for policyowners to switch life insurers before or after conversion because of search costs, acquisition costs, health deterioration, and policy restrictions (e.g., a new incontestable period must be satisfied). Carson and Forster (1996, 1997) identified low initial policy yields, which also could result in "locked-in" effects.

Policyholder Rights

The policyholder rights issue was discussed by Hetherington (1969): "In the law of business associations, the owner is generally identified and characterized by his exposure to the risk of personal liability in the event of insolvency, or at least to the risk of loss of his investment; his right to the profits; and finally, his right and, usually, his ability to control the management."

Policyowners are the only party characterized by all three of the above attributes of ownership. Although policyowners generally do not take full advantage of their rights, this fact does not diminish their status as owners of the firm. As stated succinctly by Hetherington, the policyowner is "owner by process of elimination: in the case of a mutual organization, the only available candidates are the members, and in a mutual insurer this means the policyholders." To the extent that policyholders are not fairly compensated for their ownership interests, changes in ownership form are antithetical to the rights of policyowners.

Contrary to the current wave of demutualizations, in the early 1900s mutualization was common. Metropolitan Life in 1915 stated that the reason for their conversion from the stock to mutual form of ownership was that no longer would the Board of Directors be subject to the conflicting interests of shareholders and policyholders, and the responsibility of the Board would be solely to the policyholders. Adkins (1997) states that now, many mutual insurers are attempting to "erase their history and stated rationales for protecting policyholders" in pushing legislation permitting mutual holding companies.[11]

The stated overall goal of legislation concerning demutualization is fairness and equity to policyholders (see Hann, 1997). Belth (1994), however, stated that demutualization plans serve to allow a group of investors, including some corporate insiders, to acquire control of a mutual company while paying the policyowners relatively little for their ownership interest.

Mutual Holding Company

While laws governing mutual to stock conversions are well established, a new form of partial demutualization, the mutual holding company, is gradually being enacted by state legislatures.[12] According to Belth (1997b), in a mutual holding company reorganization, a mutual insurer will "convert to stock form and at the same time create a mutual holding company and at least one intermediate holding company. The mutual holding company must own at least a majority of the shares of the intermediate holding company, and the intermediate holding company must own at least a majority of the shares of the former mutual insurance company."

Mutual holding company reorganizations give rise to legal, financial, and fiduciary issues similar to straight demutualizations. Moreover, the access to capital argument remains the most commonly stated motivation. It appears that under a mutual holding company reorganization, policyowners may absorb losses while new shareholders would be entitled to receive profits, and the exclusive ownership interests of the policyowners are diluted without compensation. (see Belth, 1997a and 1997b). In light of the results of this study concerning the access to capital motivation and the expropriation incentive, it appears that the primary factors motivating mutual holding company reorganizations include increased ability to access capital, increased ability to offer stock options and other incentive-based compensation, and the ability to retain control of the organization without the threat of takeover.

CONCLUSIONS

The goal of this paper was to examine important issues related to demutualization, foremost among these being the oft-cited need for access to capital. Based on an empirical analysis of financial statement variables, univariate results indicate that demutualizing insurers are no less capitalized than mutual insurers that do not demutualize, providing evidence against the access to capital motivation for demutualization.

Moreover, an empirical examination of several organizational structure hypotheses indicates that the level of free cash flow is significantly related to the likelihood of demutualization, and demutualization may be motivated by attempts to control associated agency costs or to expropriate free cash flow. With the level of assets of mutual life insurers in the U.S. exceeding $800 billion, the potential for wealth expropriation in the demutualization process appears to be immense.

As discussed throughout this paper, the issues surrounding demutualization are important to policyholders, managers, state taxpayers, and regulators. Policyholders are the owners of mutual life insurance companies even though they generally do not take full advantage of their rights. To the extent that policyholders are not fairly compensated for their ownership interests, changes in ownership form are antithetical to the rights of policyowners. Regulators are charged with safeguarding policyowner rights. In that capacity, the findings of this study suggest that regulators should actively examine all important factors related to the change in ownership of any mutual insurer.

NOTES

[1] Jensen and Meckling (1976) define agency costs as the sum of (1) the monitoring expenditures by the principal, (2) the bonding expenditures by the agent, and (3) the residual loss.

[2] Demutualization provides an avenue to raise capital that permits the acquisition of a larger number and a wider variety of other businesses.

[3] Relatively higher levels of free cash flow provide greater opportunities for expropriation of the free cash flow. The usual basis for compensating the policyholders for their ownership rights in a demutualization is the surplus of the insurer. While such is the case in theory, it appears that policyholders receive little compensation for their ownership interests, leaving considerable amounts for future compensation and possible expropriation. For example, Midland Mutual Life policyowners were compensated only $5.2 million for the termination of their ownership interest of $51.6 million of statutory net worth and $1.2 billion of statutory assets (see Belth, 1994). Stock insurers are subject to greater scrutiny than are mutuals: stock insurers have two sets of claimholders (policyholders and stockholders) versus only policyholders for mutual insurers; stock insurers must prepare GAAP statements and SAP statements versus SAP for mutuals; and stock insurers are tracked by analysts, owners, and potential owners versus relatively little monitoring by policyholders of mutuals.

[4] Most of the companies that demutualized were relatively small insurers. The exception is The Equitable, which demutualized in 1992. Prior to demutualization, The Equitable's financial condition was deteriorating. Although the process of conversion was costly, demutualization provided the opportunity for The Equitable to receive a much-needed infusion of capital.

[5] The Lachenbruch (jackknife) validation method is as follows (see Dambolena and Khoury, 1980): "Compute the discriminant function for each of the possible samples of size $(n_1 + n_2 - 1)$ obtained by omitting one observation from the original sample and record for each of these functions whether the omitted observation is misclassified. If m_1 and m_2 are the numbers of observations misclassified, we may estimate P_1 and P_2 by m_1 / n_1 and m_2 / n_2. The error estimates obtained will be unbiased for the probabilities of misclassification for a discriminant function based on $(n_1 - 1, n_2)$ observations and $(n_1, n_2 - 1)$ observations, respectively."

[6] Free cash flow is cash in excess of that required to fund all positive net present value (NPV) projects. Since it is not possible to determine all positive NPV projects available to each firm, undistributed cash flow is used as a proxy for free cash flow. Undistributed cash flow is calculated as: {Net operating and investment income + additional capital paid in} – {losses + expenses + policyowner dividends + income taxes}. Following Lehn and Poulsen (1989) and Wells, Cox, and Gaver (1995), dividends, although under management discretion, are deducted to calculate free cash flow (FCF). FCF is constrained to nonnegative values. As stated by Wells et al., "if free cash flow is less than or equal to zero, then there is by definition no amount of cash available for discretionary spending and managerial abuse. The magnitude of the negative amount is irrelevant." For ease of exposition, the paper employs the term "free cash flow" as opposed to "undistributed cash flow."

[7] "Expenses" is defined as: {commissions + commissions on reinsurance assumed + interest expense + insurance taxes, licenses, and fees + general insurance expenses + net transfers to separate accounts + other disbursements + other commissions and expenses}. This definition of expenses is similar to that used in Carson and Hoyt (1995).

[8] "Losses" is computed as {death benefits + matured endowments + annuity benefits + disability benefits + surrender benefits + group conversions + accident and health benefits + interest on policy funds + supplementary contract losses}.

[9] The State Mutual demutualization later was approved, following a $175,000 payment to the Center for Insurance Research (West, 1996).

[10] An alternative measure of expenses was examined in a model that was otherwise identical to equation (1). Namely, the variable (discretionary expenses / net premiums written) was examined. Results were insignificant. Also, to control for the effect of various product mixes, a product mix variable was examined. Data were available only for ten of the demutualizing insurers, however, and results were insignificant.

[11] For a review of issues related to mutual holding company conversions, see Adkins (1997). Mutual insurers in 1997 considering or effecting a change in ownership form via the mutual holding company method include Ameritus, Amerus, and Principal, among other insurers. Also see Rejda (1998) for a discussion of issues related to demutualization.

[12] Iowa was the first state to pass mutual holding company legislation in 1995 and at least fourteen other states and the District of Columbia have followed with similar laws. Several states, including New York, have bills pending. For a review of issues related to mutual holding company conversions, see Adkins (1997), Belth (1997a and 1997b), and Smallenberger (1997). Mutual insurers considering or effecting a change in ownership form via the mutual holding company method include Acacia Mutual (now Acacia Life), American Mutual (now Amerus), Ameritus, General American, Pacific Mutual (now Pacific Life), and Principal, among other insurers.

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