

## THE ECONOMICS OF ORGANIZATION STRUCTURE CHANGES: A US PERSPECTIVE ON DEMUTUALIZATION

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Received July 2003; final version accepted June 2004

**ABSTRACT\*\*:** *The objective of this study is to contribute to the current debate on demutualization from a US perspective. We document waves of demutualization and review the empirical literature examining the economics of organizational structure changes that have occurred in the US savings and loan and insurance industries since the 1980s. Based on the review of the literature on the economics of conversions, we generate a set of general observations that might inform private and public policy perspectives on the future role of user owned and controlled organizations in market economies. In doing so, the paper may serve as a platform for further discussion among scholars, policymakers, practitioners, and cooperative leaders in their quest to understand and affect the ongoing process of demutualization.*

### 1 Introduction

In many developed countries, industries are characterized by a mixed structure of mutual (or cooperative) and corporate forms. For example, mutual savings banks, mutual savings and loan (S&L)

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\*\* Résumé en fin d'article; Zusammenfassung am Ende des Artikels; resumen al fin del artículo.

associations, agricultural credit cooperatives and credit unions have successfully competed with commercial, for-profit banks in the financial services industry. More recently, however, several mutual and cooperative organizations have decided to convert to a corporate form, most notably in Australia, Great Britain, South Africa and the USA. The partial conversion of Crédit Agricole in France and the emergence of 'hybrid' financial structures among agricultural cooperatives (Nilsson 2001, Chaddad and Cook 2004) suggest that organizational structure changes are more widespread than commonly believed.

Conversion, increasingly known as demutualization (Birchall 2001), refers to changes in the ownership structure of user owned and controlled organizations from a mutual to a for-profit, proprietary organization. As a result of demutualization, residual claim and control rights are reassigned among stakeholders with implications to firm behavior and performance. In particular, cooperative membership rights are converted to unrestricted common stock ownership rights in a corporate organization. Most of times, demutualization is followed by public listing, which allows the firm to acquire additional risk capital from outside investors. The recent wave of demutualizations raises the question of whether the cooperative model can survive in an increasingly concentrated, deregulated, privatized and global business environment.

Agency theory provides the theoretical underpinning for many empirical studies of demutualization. According to this theory, the choice of organizational form and the concomitant property rights structure affect the ability of firms to transform inputs into outputs – that is, it affects efficiency. Jensen and Meckling (1979) argue that the property rights structure in alternative forms of organization may give rise to organizational flaws and, consequently, inefficiency. Fama and Jensen (1983, 1985) make a contribution to the literature by describing the property rights structure of alternative forms of organization – including investor-owned corporations and mutuals – and deriving a set of hypotheses regarding their expected behavior and relative performance. More specifically, restrictions on mutual residual claims give rise to capital acquisition and governance constraints, whereas the separation of ownership from control leads to agency costs between managers and stockholders in corporations (Jensen and Meckling 1976; Fama 1980).

Agency theory posits that the choice of organizational form is endogenous and depends on the exogenous 'rules of the game' found in the institutional environment. Moreover, this choice is driven by efficiency considerations, since it is expected that in free markets competition will weed out inefficient forms of organization. If a firm

adopts a less than optimal organizational structure, it will not be able to compete against more efficient forms of organization. The main agency theoretic hypothesis is that organizational change occurs when economic efficiencies are to be gained. This hypothesis, however, does not predict the direction of ownership structure change. In other words, a firm will choose among organization forms to minimize production and agency costs.

Contrasting to this point of view, alternative hypotheses regarding the decision to convert are found in the demutualization literature. Mayers and Smith (1986) suggest the wealth expropriation hypothesis; according to which demutualization is initiated by management and board of directors' desire for windfall gains and stock compensation plans. In addition, Schrader (1989) advances the hypothesis that, 'the nature of patron's equity in cooperatives may predispose high performance cooperatives to restructure as investor-oriented firms' (p. 41). If the market value of a cooperative exceeds its book value, members with limited patronage horizons can realize the value of their cooperative shares only by selling or converting the business. A more balanced view is offered by Hansmann (1996), who argues that the choice of organizational form is driven by transaction costs minimization and predicts that the mutual form will prevail when contracting costs are higher than risk bearing costs.

The objective of this study is to contribute to the current debate on demutualization from a US perspective. In the USA, a large number of mutual S&L associations and mutual insurance companies have converted to publicly listed companies in recent years. As mutuals converted *en masse* to corporate forms, economists have used the available data from these 'natural experiments' to study the determinants, motivations and consequences of demutualization. This paper documents these waves of demutualization and provides a critical analysis of the literature with the emphasis on empirical studies. The next section documents waves of demutualization and reviews the literature examining the economics of organizational structure changes that have occurred in the S&L and insurance industries in the USA since the 1980s.

## 2 The empirical literature on the economics of conversions

### Conversions in the S&L Industry

Savings and loan (S&L) mutual associations are user-owned organizations with residual claims restricted to depositors. S&L associations were originally formed in the US to promote thrift among the working

classes and thereby provide access to home loans at low cost. They have thus specialized in providing long-term residential mortgages and short-term deposits. Although control is supposed to reside in the membership, residual claim rights are attenuated in such a way as to eliminate the incentives of depositors to monitor the management. This is so because ownership is dispersed, depositors are insulated from default risk with deposit insurance, and federal regulations impose ceilings on return on deposits that members can obtain. Consequently, managers are in control and operate the mutual for their own benefit (O'Hara 1981). According to Nicols (1967, p. 337), 'subject to little, if any, pressure from savers, management is a self-perpetuating autocracy'.

Up until the early 1980s, mutual S&L associations dominated the US thrift industry with 73 per cent of total industry assets (Cordell et al. 1993). The 1980s brought about significant macroeconomic, regulatory and institutional changes that altered the nature of competition in the thrift industry and undermined the dominant position of mutuals. In particular, industry deregulation and interest rate volatility introduced more competition into deposit markets thereby reducing industry profits. These industry developments were particularly harmful to mutual associations that are dependent on retained earnings as the sole source of capital. The Garn-St. Germain Depository Act of 1982 liberalized chartering provisions and provided mutual thrifts the opportunity to convert to the stock charter. Post-conversion anti-takeover rules introduced by the Federal Home Loan Bank Board (FHLBB) and approved by Congress provided an additional incentive for mutual-to-stock conversions. A total of 762 mutuals converted to stock associations between 1975 and 1989, raising over \$11 billion in external equity. By the end of the 1980s, mutual associations held less than a quarter of industry assets. Demutualization continued in the 1990s and stock associations currently hold about 90 per cent of the thrift industry's assets.

The 1987 Competitive Equality Banking Act introduced a new organizational form in the thrift industry known as the mutual holding company, a hybrid between the 'pure' mutual and stock associations. This legislation addressed the inability of mutuals to raise external equity by creating mutual holding companies and selling minority interest in stock thrift subsidiaries. The mutual holding company structure permits a mutual association to raise incremental amounts of capital while maintaining the mutual ownership base. These 'partial conversions' have been modestly popular as less than 40 mutual associations have reorganized as mutual holding companies (Smith and Underwood 1997).

The rapid and drastic organizational change in the US thrift industry has been subject to empirical scrutiny by economists examining the causes and effects of mutual conversions to corporate charter. Hadaway and Hadaway (1981) examine the demutualization of 29 mutual S&L associations that converted to stock associations before 1978. Converting mutuals are paired with 29 non-converting mutual and 29 stock associations. Univariate mean difference tests are performed to compare financial performance between groups. Based on accounting data collected from financial reports, the authors examine the financial performance differences prior to and after conversion. The authors observe that the primary reason for conversion is access to capital. Prior to conversion, mutual associations experience a consistent decline in net worth-to-asset ratio as a result of large savings inflows. Following conversion, the average net worth ratio increases 72 per cent and average mortgage lending activity increases 30 per cent. In other words, demutualization improves the capital position of converting associations allowing them to pursue more aggressive growth. The authors also find significant changes in operating behavior in the post-conversion period. Converting associations show improved profitability, increased risk tolerance and higher growth levels after demutualization. They conclude that, 'associations that converted to the stock form exhibit more aggressive operating behavior and better growth potential than mutual associations' (p. 205).

Masulis (1987) analyzes 205 completed conversions in the S&L industry between 1974 and 1983. This is perhaps the most comprehensive study of organization structure changes with an in-depth analysis of both the causes and effects of mutual conversions to a corporate charter. Multivariate probit analysis is used to explore the determinants of the decision to convert. In addition, event study methodology is employed to assess the effects of demutualization on converting associations' performance and the well being of stockholders and managers. In order to do so, Masulis collects data from several sources, including S&L associations' financial reports and proxy statements, several reports prepared by the FHLBB, and industry publications. He first develops an empirical model to examine conversion frequency, which is defined as the number of mutuals applying for conversion relative to the average number of mutuals during the study period. Results indicate that growth opportunities for new deposits and intensity of competition significantly affect conversion frequency. In addition, the author assesses operating and financial characteristics of conversion applicants relative to mutual associations that did not apply to convert. The probability of conversion is positively related to the size of association assets, the ratio of

non-financial business income to total income, and the growth rates of assets and deposits. It is also negatively related to the ratio of net worth to total assets, which suggests that equity capital constraints in mutuals affect the decision to convert.

Masulis also examines the consequences of conversion and finds that converting S&L associations experience 11.4 per cent average 20-day stock return after conversion, suggesting demutualization induces an increase in market values. He argues that conversion improves organizational efficiency due to the injection of new equity capital, distribution of managerial stock options, and decreased risk of insolvency. Positive cumulative average stock returns following conversion is also a measure of wealth gains to subscribing stockholders. The evidence also suggests that managers of converting associations realize large wealth gains. These results lead the author to conclude that, 'all major claimants benefit from the conversion decision' (p. 56).

A more recent study by Cole and Mehran (1998) provides support to Masulis' findings. They examine the stock price performance and ownership structure of a sample of 94 thrifts that converted from mutual to stock ownership between 1983 and 1987. The authors find that firm performance measured by industry-adjusted annual stock returns is significantly improved after conversion. Moreover, the authors observe a positive relationship between increases in inside ownership and improvements in firm performance. These findings provide support to the agency theory hypothesis that managerial incentives to maximize the value of the firm increase with their ownership stake.

Despite the positive effects of conversion on firm performance, demutualization has adversely affected the functioning of the S&L industry. Cordell et al. (1993) examine a sample of mutuals, chartered stocks, and mutual-to-stock conversions that occurred in the 1980s. Their empirical evidence suggests that demutualization significantly affects the S&L industry risk. Conversion activity increases industry risks because stock associations adopt high risk, high return investment strategies, are more leveraged, and grow at a faster rate than mutuals. Esty (1997) also finds that conversions from mutual to stock ownership are associated with increased investments in risky assets and higher profit variability.

Taken together, these applied studies of conversions in the S&L industry suggest the presence of efficiency gains associated with demutualization. Converting mutuals are able to ameliorate equity capital constraints and pursue aggressive growth. Profitability and operating performance are improved possibly as a result of more

clearly defined property rights and incentive alignment between managers and stockholders. It should be noted, however, that the focus on financial measures of performance might lead to misleading conclusions especially because mutuals are service-oriented organizations whose primary objective is to provide benefits to members rather than to maximize stockholder returns. In general, the literature is silent about distributional effects related to demutualizations, particularly the effects on depositors following demutualization. Additionally, the evidence suggests that converting mutuals adopt riskier strategies, which partially contributed to the 1980s thrift crisis. In other words, even if there are firm-level efficiency gains from demutualization, the presence of non-investor owned firms improves market performance as argued by Drake and Llewellyn (2001).

### Conversions in the insurance industry

The US insurance industry is unique with the coexistence of several organizational forms, including stock and mutual insurance companies, reciprocals, fraternals, and Lloyd's associations (Mayers and Smith 1988). The emergence of mutual insurers is often explained as a reaction against perceived excessive premiums charged or unacceptable policy conditions imposed by corporate insurance companies (Smith and Stutzer 1995). Mutual insurance companies are owned by their customers, the policyholders. Consequently, the major benefit of the mutual organizational form is the elimination of policyholder-stockholder agency conflicts (Fama and Jensen 1983).

In theory policyholders control the management, but this is true only to a limited extent (Hetherington 1969; Kroll et al. 1993; Pottier and Sommer 1997). The effectiveness of policyholder control in mutual insurance companies is limited because: (1) policyholders are numerous and widely scattered geographically; (2) they have limited capacity for communication; (3) their stake in the company is proportionately minute; and (4) many policyholders do not understand the nature of a mutual company or know they have a right to vote (Black and Skipper 1994). In other words, the costs of controlling managers in a mutual insurer are very high. Not surprisingly, survey research shows that policyholders do not take full advantage of their voting rights and seldom participate in annual meetings (Greene and Johnson 1980).

Similarly to the S&L industry in the 1980s, the insurance industry experienced a wave of organizational structure changes as 34 property-casualty and 17 life-health mutual insurers decided to

demutualize during the 1990s (Subramanian and Cummins 2001). In the late 1990s, mutual life insurance 'giants' – including Prudential, MetLife, and John Hancock – converted to stock companies with subsequent billion-dollar IPOs. Following these conversions, the share of the US life insurance industry held by mutual companies decreased to approximately 15 per cent, down from 50 per cent as recently as 1986 (Gorski and Cohen 2002).

Various factors have been cited as determinants of mutual insurer demutualization, including reduced surplus growth, limited access to capital, and tax disadvantages of the mutual corporate form (Carson et al. 1998). Perhaps more importantly, changes in the institutional environment have forced mutual insurers to reconsider their organizational form. The US insurance industry has enjoyed high barriers to entry since the 1934 Glass-Steagall Act, which precluded other financial institutions from insurance underwriting. The 1999 Gramm-Leach-Bliley Act repealed Glass-Steagall and effectively allowed any financial institution to offer insurance services. As a result, mutual insurance companies are exposed to an increased level of competition from diversified financial companies with access to public equity markets. Industry analysts McDonald et al. (1997, p. 76) predict that, 'as the walls tumble between financial industries and buy-or-be-bought becomes the war cry, more mutual insurers are poised to make the leap from mutual to stock ownership'.

In addition to conversions to stock companies, demutualization in the insurance industry has occurred by means of mergers, bulk reinsurance followed by liquidation of the mutual, and mutual holding companies (Mayers and Smith 2000). Since 1995, fewer than 20 mutual insurers have converted to the mutual holding company (MHC) structure (Levinsohn 2000). When a mutual insurer adopts a MHC structure, it separates membership rights from insurance policy rights. Membership rights – including control rights – are transferred to the MHC. The mutual insurer is reorganized as a stock insurer structured as a downstream subsidiary of the MHC. All assets and liabilities of the mutual insurer and policyholders' insurance contracts are assigned to the reorganized stock insurer. In order to raise capital, the MHC sells shares in its stock insurer subsidiary to the public but is required by law to maintain a majority of the voting rights. Differently from the 'pure' conversion method, policyholders receive no proceeds from the sale of stock because their membership rights are preserved in the MHC. The MHC structure has spurred heated debate given its perceived inequality towards policyholders (Adkins 1997; Smallenberger 1997; Vader and Clark 1999).

Interestingly enough, stock insurers have converted to mutual ownership in the past. Mayers and Smith (1986) examine a sample of 30 stock insurance companies converting to a mutual form between the years 1879 and 1968. The authors analyze changes in stock prices, premium income, and management turnover accompanying mutualization to evaluate the effect of ownership structure changes on insurer performance. They argue that the choice of organizational form depends on the costs of controlling incentive conflicts between residual claimants and managers and between residual claimants and policyholders. The mutual firm is efficient when agency costs between residual claimants and managers and the loss in risk-bearing efficiency through stockholder specialization are offset by the advantages of mitigating incentive problems between residual claimants and policyholders. The 'efficiency hypothesis' therefore suggests that firms decide to mutualize when agency costs in a mutual are lower than in a stock insurer. Alternatively, the mutualization process does not enhance firm value and is driven by potential wealth transfers between classes of claimholders according to the 'expropriation hypothesis'. For example, policyholders may not be reasonably compensated for their membership rights or conversion may be used to transfer wealth to managers and directors. Mayers and Smith test these hypotheses by examining the effects of mutualization on policyholders, stockholders, and managers. The time-series data indicate that industry-adjusted premium income from policyholders is not significantly different between the pre- and post-mutualization periods. Stock purchase data show that stockholders receive a premium for their stock with an average rate of return of 75 per cent. Additionally, the authors observe a decline in management turnover in the post-mutualization period. As no stakeholder group suffers losses following mutualization the authors conclude that, 'changing from a stock to a mutual ownership structure is on average efficiency-enhancing' (p. 95).

McNamara and Rhee (1992) examine the pre- and post-conversion performance of 33 life insurers that demutualized between 1902 and 1984. In order to do so, they collect time series data covering the five years before and the five years after demutualization. Product, financial, and management welfare variables are statistically analyzed to test Mayers and Smith's (1986) efficiency and expropriation hypotheses. Industry-adjusted values are analyzed using the non-parametric, Wilcoxon signed-rank test to compare insurer performance before and after conversion. Empirical results show that premium income, lapse rates, product mix, expense ratios, and admitted assets remain unchanged after demutualization. The data also reveal

a significant increase in capital and surplus immediately following conversion, which suggests that demutualization ameliorates financial constraints of mutual insurers. Additionally, management turnover increases around the time of demutualization. The authors thus conclude that the evidence provides support to the efficiency hypothesis and does not support the expropriation hypothesis.

Cagle et al. (1996) study the demutualization of 27 property-liability insurers and examine whether efficiency gains or wealth transfers among stakeholders motivate the decision to convert. Industry-adjusted financial variables and management turnover rates of converting mutuals are examined to assess pre- and post-conversion performance. Results indicate that demutualized insurers have higher net worth, total assets, and number of premiums written following conversion. However, these changes are not significantly different from industry averages. Converting firms experience an increase in the expense ratio, while the average firm in the industry reduces the expense ratio during the study period. Management turnover data show a 30 per cent turnover rate in the year of conversion and a 41 per cent turnover rate in the year following conversion. Since the evidence provides little support to either the efficiency or wealth expropriation hypotheses, the authors conclude that conversion is a 'neutral mutation' resulting from a change in lines of business that require more managerial discretion.

Carson et al. (1998) examine a sample of 26 life insurers that demutualized from 1902 to 1995. Matched-pair sampling is employed with each converting insurer being matched with two randomly selected mutual insurers that did not convert. Logistic regression analysis is employed to study the probability of conversion as a function of several financial variables, including total admitted assets, free cash flow, and surplus, expense and loss ratios. Results suggest that total assets, surplus and expense ratios are not significantly related to the probability of conversion, which does not provide support to the access to capital and expense preference hypotheses. The authors report that the loss ratio is positive and significantly related to the probability of conversion, which suggests that insurers that demutualize operate in risky lines of businesses. In addition, free cash flow positively and significantly affects the probability of life insurer demutualization. This finding suggests that agency costs of equity associated with free cash flow motivate mutual insurer conversion. The authors do not rule out, however, that conversions are at least partly motivated by self-interested managers. They argue that the potential exists for wealth transfers to managers if free cash flow levels are high around the time of conversion.

Mayers and Smith (2000) examine 98 property-casualty mutual insurance companies converting to stock charter between 1920 and 1990. The authors suggest that conversions are motivated by three non-mutually exclusive factors: by constraints on the firms ability to grow, by a decision to pursue lines of businesses for which mutual ownership is ill suited, and by the potential for wealth transfers to executives. They call these the 'growth', 'lines of business' and 'private benefits' hypotheses. Due to data limitations, the empirical analysis is focused on the efficiency incentives associated with stock charter conversions. Insurer financial data are collected from Best's Insurance Reports beginning eleven years prior to the conversion year and extending ten years beyond. Comparable financial information is also collected for a matching sample of mutual and stock counterparts that did not convert. The authors observe a substantial abnormal growth in direct premiums written and total admitted assets in the years prior to conversion. Post-conversion growth rates are significantly higher than for a matching sample of non-converting mutuals. Evidence suggests that converting mutuals operate in riskier business lines than matching mutuals prior to conversion and that these risk differences are maintained after conversion. Loss ratio volatility of converting mutuals is not significantly different from matching stocks throughout the sample period. In addition to univariate statistical analysis, probit regression analysis is performed to provide multivariate tests of conversion hypotheses. Regression results are consistent with both the growth and lines of business hypotheses: asset growth is positively correlated, surplus ratio is negatively correlated, and loss ratio volatility is positively correlated with the probability of conversion. The authors conclude that there are significant costs associated with the operation of a mutual insurance company. 'These costs include the opportunity costs associated with foregone investments and operating in activities more appropriate for the stock ownership form. Either of these cost disadvantages can motivate conversion to stock charter' (p. 25).

Subramanian and Cummins (2001) examine the determinants of conversions in the insurance industry. Their objective is to test the 'access to capital' hypothesis – i.e., mutual insurers demutualize in order to ameliorate perceived financial constraints. In order to test this hypothesis, the authors collect financial data from 51 property-liability and 21 life-health mutual insurers that converted to a stock corporation between 1981 and 1999. Results from logistic regression analysis provide support to the access to capital hypothesis, as firms with low surplus-to-asset ratios are more likely to convert. In addition, the authors observe that converting insurers experience a

significant increase in their surplus-to-asset ratio as capital constraints are eased after demutualization.

These empirical studies suggest that ownership structure changes in the US insurance industry are in general efficiency enhancing. Stock insurers have mutualized in the past to reduce agency costs between policyholders and stockholders. Mutual insurers, on the other hand, have converted to stock charter when imperfect access to capital constrains growth and agency costs between policyholders and managers are high. The evidence also suggests that strategic decisions regarding growth and business lines also influence the choice of insurer ownership structure.

Due to data limitations, previous studies of mutual insurer conversions have not been able to adequately examine the 'private benefits' or 'expropriation' hypothesis. Although this hypothesis cannot be ruled out, the literature suggests that there are several safeguards embedded in conversion legislation protecting policyholders' rights. The recent demutualization of Prudential is illustrative of the hurdles involved in the conversion process. Prudential announced plans to convert in February 1998, when the board of directors authorized the company to explore structural alternatives. In December 2000, the board unanimously approved a plan of reorganization that provided the framework for conversion. Prudential submitted its demutualization application to the New Jersey Commissioner of Banking and Insurance for review and made its initial filing with the Securities and Exchange Commission (SEC) in March 2001. Subsequently, in one of the largest mailings in the history of the US Post Office, Prudential mailed information packages to approximately 11 million policyholders. The voting period concluded in July 2001 with policyholders overwhelmingly approving the company's demutualization plan. In October 2001, the NJ Commissioner approved the company's demutualization plan making it possible for Prudential to restructure as a publicly held company. Prudential's demutualization process concluded on December 2001, when Prudential Financial, Inc. began trading on the New York Stock Exchange. The IPO was valued at approximately \$4 billion.

### **3 General observations**

Despite its limited scope, this review of the literature on the economics of demutualization may serve as a platform for further discussion among scholars, policymakers, practitioners, and cooperative

leaders in their quest to understand and affect the ongoing process of demutualization. In this section we seek to distill core elements from this stock of knowledge and thereby identify a set of general observations that might inform private and public policy perspectives on the future role of user owned and controlled organizations in market economies. As the structures and behavior of user owned organizations vary between countries, our observations may not apply in specific circumstances.

*Observation 1: Waves of demutualization often follow disruptive institutional and market changes*

In industries where cooperatives or mutuals have traditionally played important economic roles, waves of demutualization have followed some dramatic institutional or market change that fundamentally altered the 'rules of the game'. These institutional changes have increased the level of competition in these industries and negatively affected industry participants' margins. As most mutuals have evolved as a reaction to some form of market failure, increased industry competition has in general undermined their *raison d'être*.

*Observation 2: Organization structure changes are efficiency enhancing*

Economists have posited a diverse set of alternative hypotheses concerning the economic impetus for organization structure changes including efficiency and expropriation motives. In general, the available empirical literature lends support to the agency theoretic efficiency hypothesis as the performance of converted mutuals improves after demutualization. There has been considerable criticism about applied studies reporting performance deficiencies for mutuals relative to investor-owned firms because of the research methodology employed. In particular, Schwert (1981) argues that cross-sectional evidence is flawed because ownership structure is endogenous. He suggests that a more appropriate test would explore the same firms under alternative ownership structures using time series data. The great majority of empirical studies examining the causes and effects of ownership structure changes described in this study follow this methodology using both univariate and multivariate statistical tests. These studies, however, rely almost exclusively on accounting data acquired from financial reports. Measuring performance solely on the basis of financial ratios has many problems and limitations, including measurement errors due to accounting policies not being consistent among firms and reporting biases (Fisher and McGowan 1983; Watts and Zimmerman 1983) and the lack of solid foundation in economic theory

(Sexton and Iskow 1993). As a result, it is difficult to precisely interpret the various ratios and what factors might lead to differential financial performance of mutual and corporate firms. Notwithstanding these caveats, the available empirical evidence lends considerable support to the efficiency hypothesis advanced by agency theorists. One cannot rule out, however, that conversions are at least partly motivated by self-interested managers and directors.

*Observation 3: Conversion ameliorates perceived financial constraints*

In addition to economic efficiency improvements, demutualization helps converting mutuals to alleviate perceived financial constraints. The 'perceived' qualification is important because there is little empirical evidence providing a definitive test of the cooperative capital constraint hypothesis. Additionally, cooperative managers often make the case that additional capital is needed to support growth related strategies but the effects of growth on member benefits are seldom demonstrated. In some industries, there is an overabundance of capital and competitive returns on equity are difficult to attain. If an industry does not offer profitable investment opportunities for existing capital – let alone additional capital – to be deployed, returns will not cover the cost of invested capital. These qualifications notwithstanding, converting mutuals are able to access additional sources of equity capital thereby decreasing dependence on internally generated capital.

*Observation 4: Conversion provides members access to unallocated equity and reserves*

Despite the lack of empirical evidence, there is reason to believe that limited horizon cooperative members might have a positive perspective on demutualization as a way of having access to accumulated surplus and reserves (Schrader 1989). Retained earnings, however, have not all been contributed by present members, but rather accrued over time reflecting profits retained from non-active members. Present members' residual claim rights on reserves are therefore contestable which raises the issue of ownership of the unallocated portion of a mutual equity capital. This problem is exacerbated in cooperatives with brand names and other intangible assets with high market values. In France, mutuals are not allowed to share net assets (or surplus) with members and are obliged to forfeit net assets to another mutual or to a foundation when they convert – a rule known as the French Lock. An alternative solution is to minimize the use of unallocated reserves and increase the proportion of earnings allocated to individual member accounts.

*Observation 5: Conversion is related to weak governance systems*

It is noteworthy that a large number of conversions occurred in mutuals where member control is ineffective. In particular, economists have observed that conversions in the S&L and insurance industries are related to high agency costs between members and managers. Converting to a stock company from a mutual structure offers the opportunity to align managers and owners interests by means of stock-based compensation packages and employee stock ownership plans. A corollary is that very large cooperatives are serious candidates for conversion unless they implement tight governance mechanisms to safeguard member control. Masulis' (1987) finding that the size of a mutual S&L association is positively related to the probability of conversion is informative in this respect. Related to the issue of member control is Hansmann's (1996) prediction that increased membership heterogeneity is correlated with the probability of conversion. The key to the survivability of the mutual form therefore resides in the efficiencies generated by homogeneity of interest among customers and member commitment.

*Observation 6: Demutualization is creating cooperative hybrids*

Instead of converting to a for-profit corporation, some mutuals in the insurance and S&L industries have adopted the mutual holding company (MHC) structure. The MHC structure allows the mutual to access outside equity without relinquishing member control. A very limited number of agricultural cooperatives have demutualized but an increasing number is seeking alternative sources of capital by means of organizational innovations (Chaddad and Cook 2004). These organizational innovations enable cooperatives to acquire permanent capital both from member and non-member sources while maintaining control in the hands of current members. It remains to be seen, however, whether organizational innovations in cooperative hybrids are indeed solutions to capital constraints or are rather transitions to a corporate structure.

*Observation 7: Institutional innovation might prevent future waves of demutualization*

The regulatory environment supporting the formation and functioning of US cooperative and mutual organizations has changed very little in spite of recent organizational innovations. US cooperatives and mutuals operate under a common set of principles – including business or service performed at cost, democratic member control, limited returns on capital and ownership rights restricted to member-patrons.

These principles of cooperation, which emerged in the UK more than 150 years ago, challenge cooperatives as they attempt to adjust to changing market conditions. Recent institutional innovations – such as the laws allowing the formation of mutual holding companies in the S&L and insurance industries – may provide the necessary organizational flexibility for cooperatives to remain user owned and controlled businesses.

#### **4 Summary and conclusions**

This study has documented waves of organization structure changes that recently occurred in the S&L and insurance industries and has provided a critical analysis of the economics literature on conversions. This analysis has found that demutualization is in general efficiency enhancing but may cause adverse effects on members' well-being and industry performance. Operational and financial performance is enhanced as converting to a stock company from a mutual structure offers the possibility of raising capital to ameliorate perceived financial constraints and the ability to provide high-powered incentives to managers and employees.

Have cooperatives and mutuals outgrown their original purpose and become anachronisms? The recent wave of demutualization will undoubtedly force the remaining mutuals to reassess their value to members. In addition, the economic literature on conversion highlights two structural weaknesses of mutuals: governance and access to capital. If mutuals are to survive in an increasingly global, deregulated, competitive and capital-intensive business environment, they will need to address these major organization structure constraints. Mutuals therefore are not condemned to disappear as long as they are well capitalized and managed while adopting effective corporate governance rules to safeguard member control.

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### **Approche économique des changements dans la structure d'une organisation: le cas des démutualisations aux Etats-Unis**

*L'objectif de cette étude est de contribuer au débat actuel sur la démutualisation à partir de l'expérience des Etats-Unis. Les auteurs font état des vagues de démutualisations et présentent la littérature empirique qui examine les fondements économiques des changements de structure organisationnelle qui ont eu lieu dans les secteurs d'épargne et de crédit ainsi que dans le secteur de l'assurance depuis les années 80. Se basant sur le survol de la littérature sur l'analyse économique des changements organisationnels, les auteurs expriment une série d'observations générales susceptibles d'informer les décideurs publics et privés sur le rôle*

*futur dans les économies de marché d'organisations possédées et contrôlées par leurs usagers. L'article peut ainsi alimenter le débat entre scientifiques, décideurs politiques, praticiens et dirigeants coopératifs sur l'influence du processus de démutualisation en cours.*

### **Die Ökonomik von Organisationsstrukturveränderungen: eine US-amerikanische Perspektive zur Demutualisierung**

*Das Ziel dieser Untersuchung ist, aus einer US-amerikanischen Perspektive einen Beitrag zur derzeitigen Debatte über Demutualisierung zu leisten. Wir dokumentieren Demutualisierungswellen und geben einen Überblick über die empirische Literatur zur Untersuchung der Ökonomik von Organisationsstrukturveränderungen, die im US-amerikanischen Spar-, Kredit- und Versicherungssektor seit 1980 aufgetreten sind. Auf der Grundlage der Durchsicht der Literatur über die Konversionsökonomik gelangen wir zu einer Reihe allgemeiner Feststellungen für private und öffentliche Policy-Perspectives zur zukünftigen Rolle von Organisationen in Marktwirtschaften, die sich im Eigentum und unter Kontrolle der Nutzer befinden. Damit kann der Beitrag als eine Platform dienen für die weitere Diskussion unter Studenten, Politikgestaltern, Praktikern und Verantwortlichen in Genossenschaften bei ihrem Streben, die ablaufenden Demutualisierungsprozesse zu verstehen und zu beeinflussen.*

### **Aproximación económica a los cambios en la estructura de una organización: perspectivas de la desmutualización en Estados Unidos**

*El objetivo de este estudio es contribuir al debate actual sobre la desmutualización a partir de la experiencia USA. Los autores dan cuenta de la oleada de desmutualizaciones y presentan la literatura empírica que examina los fundamentos económicos de los cambios de estructura organizativa que han tenido lugar en los sectores de crédito y de ahorro desde los años ochenta. Sobrevolando la literatura sobre el análisis económico de las conversiones, los autores exponen una serie de observaciones generales susceptibles de informar las políticas públicas y privadas sobre el papel futuro en las economías de mercado de las organizaciones poseídas y controladas por sus usuarios. Este artículo viene a alimentar el debate entre científicos, responsables políticos y dirigentes de cooperativas, con el objetivo de influir sobre el proceso de desmutualización en curso.*