

THE OPTIMAL OWNERSHIP OF THRIFTS

Dr. Lawrence B. Morse
Department of Economics
NC A&T State University

Savings and Loans went through a tumultuous period in the 1970s and 1980s and have steadily been losing ground to commercial banks in terms of share of overall assets and loans. The relative decline of S&Ls poses the policy question of whether legislation and/or regulations should be enacted to sustain them. A further question is whether preferential treatment should be given to stockholder-owned S&Ls or to mutuals S&Ls (hereafter MS&Ls). In this paper we apply the theory of the firm to resolve the later policy concern in particular.

1. Ownership and a theory of the assignment of ownership

Neoclassical economists viewed the firm as a set of feasible production plans that are overseen by a manager. A next step in thinking about the firm was the "principal agent" theory that formally recognized that owners usually do not observe the management of the firm's day-to-day operations. The theory of the firm deepened as economists came to consider the complexity of contracting. Contemporary writers describe the firm as a nexus of contracts.ⁱ Firms have contracts with employees, suppliers of inputs and services, financial institutions, purchasers and so forth.ⁱⁱ The firm is a particular kind or set of interrelated contracts and an examination of the associated contracting costs can provide a basis for determining the optimal ownership form of a firm. This article uses the theory of the firm to examine the question of whether stock or mutual ownership is optimal among thrifts. This section builds on the definition

of a firm as a nexus of contracts and develops a theory of the optimal assignment of ownership based on Hansmann's analytic framework.ⁱⁱⁱ (Hansmann 1988, 1996)

1.1 *Ownership*

The "owners" of a firm are those persons who have two formal rights in common: the right to exercise control over the firm and the right to appropriate the firm's net returns. The net returns include both any after-tax current profits and any net increase in the value of capital assets or other rights that the firm may own. These latter returns are actualized when an individual sells his/her share of the ownership or the firm is liquidated. In the case of financial mutuals, as we shall see, the story regarding these latter returns is a bit more complicated. The ownership right to control is a formal one that is often limited. The right of control does not guarantee *effective* control over the firm. Owners, whether they are stockholders or member-owners of a mutual, usually find their right to control limited to the right to elect a board of directors.

Following Hansmann's terminology, we apply the term "patrons" to the collections of individuals who transact with the firm. Patrons include customers, employees, or suppliers of inputs or other factors of production, including capital. It is not a matter of coincidence that the owners of the various standard forms are patrons. To see why owners are patrons we begin by recognizing that a class of patrons and a firm interact in one of two ways: through a market, in which case those patrons are not the owner, or through the patrons' being the owner of the firm. In the former case the patrons influence the firm via a market contract, which means that the parties incur market transacting or contracting costs. In the latter case, the patrons influence over the firm by exercising their right to control the firm. Controlling a firm, however, involves costs,

costs that are termed ownership costs. These two costs, coupled with the efficiency notion of cost minimization, provide a basis for thinking about the optimal assignment of ownership.

1.2 A theoretical basis for assigning ownership

Market contracting costs can go well beyond the costs associated with learning about and negotiating the terms of trade. There may be costs associated with differences in market power as in the case when customers face a monopoly. If the customers are the owners they can realize a considerable savings of market transacting costs by setting a price that, while covering production costs, is lower than the monopoly-pricing outcome. Or when financial institutions have a history of discriminating against certain minorities in their lending practices, then those minorities can lower their borrowing costs by dealing with minority-owned financial institutions. Thus the overall market contracting costs of a firm will vary depending on which patrons are the owners. Similarly overall ownership costs are contingent on who owns the firm. When the workers own a firm their motivation and self-monitoring significantly reduce the ownership costs of controlling the labor process. On the other hand, if a firm operates in a setting in which there is considerable risk and hence variation in the residual earnings, employees might not be well suited to bare the risk and would encounter high ownership costs if they owned the firm.

Which patrons own a firm influences the associated market contracting costs and ownership costs and hence impacts the firm's transactions costs. Efficiency calls for cost minimization and offers a criterion for determining the optimal ownership of a firm. The optimal assignment of ownership is to the class of patrons which minimizes the sum of both the ownership costs of that class of patrons and the various market contracting costs incurred in transacting with the other patron classes.

1.3 Market Contracting Costs

We will discuss four categories of market contracting costs: the risks of long-term contracting, asymmetric information, regulation and social costs.^{iv} Strictly speaking social costs may not be seen as market contracting costs. The social costs we explore are those incurred by depositors and society at large when a financial institution becomes insolvent.

The risks of long-term contracting can be formidable for depositors. Depositors have a singular interest in the thrift's not becoming insolvent. Investor-owners of a thrift may have an interest in investing deposits in risky loans. When the owners are not the depositors, the owners' gains from added risk are the depositors' losses. The opportunistic behavior of the owners in exploiting the long-term contracting has created a set of zero-sum risks. These risks are avoided when the depositors own the thrift.

Asymmetric information refers to all parties not having equal information. An imbalance in information may arise because, while the information is available, it is relatively costly for one of the parties to obtain. Alternatively one of the parties may have information to which the other is not privy. A loan applicant may choose not to inform the loan officer that her spouse plans to quit his job at the end of the month. When the loan applicant is a credit union member, and her peers expect her to repay her loan, she may disclose her spouse's employment plans, and thereby reduce the credit union's contracting costs associated with default.

It has long been accepted that financial institutions need regulation. The actual costs of the regulatory apparatus should be counted as market contracting costs. These regulation costs include not only the staffing, office, and so forth, expenses of the regulatory agency, but also the costs realized by the financial institutions themselves in gathering information and making their cases for having met regulatory requirements.

The fact that we regulate financial institutions is a recognition that society is harmed by insolvencies. While depositors eventually get back their deposits, up to the insured limit, depositors nonetheless experience disruptions in their financial lives. Firms that do business with the thrift incur losses for which they are not compensated.

1.4 *Ownership costs*

Hansmann assembles ownership costs into three categories: controlling managers, collective decision-making, and risk-bearing. The first two costs stem from owners' formal right to control the firm. The third ownership cost is associated with the owners' right to the residual earnings.

The costs associated with owners' right to set policies and to direct the firm's management can be separated into two types: monitoring costs and managerial opportunism. Monitoring costs include: (a) owners informing themselves about the firm's operations; (b) owners communicating among themselves; and (c) owners seeing to it that managers carry out their decisions. When patrons transact with the firm they gain information about it and the costs of their obtaining this information will tend to be inversely related to frequency, and duration of patrons' transaction with the firm. The more important the transactions with a firm are to a class of patrons, the greater the patrons' inclination to acquire information about the firm and too the greater their incentive to be efficient and economical in acquiring the information.

Communication among owners will be affected by the number of owners. The owners' physical proximity to one another and to the firm may play a role in communication costs as well as their ability to verify whether managers carry out the owners' decisions. As the number of owners increases, their individual stake in the firm's residual earnings will diminish and so too will the incentive to monitor.

Managerial opportunism arises when monitoring is less than perfect. Managerial opportunism can take many possible forms. One is to run the firm so as to realize residual earnings that are adequate, but lower than could have been earned under more diligent management. Another is to pursue emoluments such as costly office buildings and furnishings, nepotism, and so forth. There are possibilities of engaging in questionable or illegal forms of self-dealing. Managerial opportunism may also result in excessive retention of earnings. Managers of financial institutions, for example, have an incentive to hold on to retained earnings to ensure against bankruptcy and the associated loss of employment, rather than investing the retained earnings in the growth of depositors and assets. Alternatively, managers may use retained earnings in ways that tend to maximize the size and growth of the firm rather than its rate of return.

Regardless of whether the owners act on their own behalf, elect a board of directors or adopt some other form of collective decision making, there are decision-making costs. The degree of heterogeneity of the ownership's interests can be a major determinant of the decision-making costs. The more diverse owners' interests are, the more likely it is that their decision-making costs will exceed market contracting costs. Members of the patron class that owns the firm may differ because the outcome of a decision impacts them differently. Members of a MS&L or a CU may have differing views on loan policies depending on whether they borrow from their thrift. Owners tend to institute some form of voting to resolve their differences.

There are two types of costs associated with arriving at collective decisions. One type is those costs associated with inefficient decisions. Inefficiency arises from the tendency for a voting process to produce outcomes that appeal to the median voter rather than outcomes preferred by the average member. Decisions can also be inefficient when an unrepresentative

minority gains control. Minority control may come about by the majority' abdicating its voting responsibilities. The other type is those costs associated with the decision process itself. These costs include, at the very least, the time and effort required for owners to meet and to reach decisions. While devices such as delegation to committees can save on these costs, such delegation opens the possibility of inefficient decisions.

To the extent that the level of risk willingly incurred impacts rates of return, the risk-bearing disposition of the owners can affect their second right of ownership, namely the right to appropriate the firm's net earnings. Furthermore, particularly when long-term relationships are involved, other patron classes may find that risk is created when market contracting with a given class of patrons, risks that would not be present or would be different if another class of patrons were the owners. To illustrate, the rate of loan default can be affected by whether investors or depositors-borrowers own the financial institution.

1.5 Using the theory

Hansmann (1996) uses his market-contracting-cost and ownership-cost minimization criterion as a means of explaining the prevailing ownership patterns. Our intention is to employ the analysis of optimal ownership in order to let it guide us toward identifying what is the socially optimal form of ownership, one predicated on more than simply market considerations. When markets fail to produce a socially desired outcome, economists refer to this circumstance as a market failure and may then look for governmental intervention to correct the failure. This is the public policy perspective we utilize in deciding whether sock S&Ls or MS&Ls merit preferential treatment. In the remaining sections we apply the theory of optimal ownership to thrift institutions. We restrict our discussion of possible patron classes that might be owners of a thrift to investor-owners and member depositors.

2 Thrifts: historical background

It is important to place ownership forms into historical perspective which will include among other things public policies such as regulation, tax preferences, and so forth, that are important to a full appreciation of optimal ownership. This historical backdrop is followed by a review of the literature that address empirical findings regarding issues such as relative efficiency, demutualization, monitoring managers, and risk.

Mutuals in the American financial system encompass a diversity of institutions.^v Listing them in the order of their appearance on the financial scene they are: (1) mutual savings banks in 1816; (2) mutual savings and loan associations (hereafter MS&Ls) in the 1830s; and (3) credit unions (hereafter CUs) in 1909.^{vi}

2.1 *Mutual savings banks*

The savings needs of the urban working class that began to emerge in the early 1800s in the northeast were not being met by the extant investor-owned banks. The investor-owned banks of the day primarily served commercial customers. (The issuing of money was not yet a federal monopoly, and commercial banks were in business in no small part for the earnings potential of discounting merchants' notes and creating money in the form of issuing bank notes.) The savers, as fixed claimants, faced a conflict of interest with the residual claimants, the investor-owners, regarding the level of risk that would be taken with their deposits. The banks were not regulated and it was in the investor-owners' interest to take risks while maintaining only minimal net assets. Depositors could not know what the banks would do with their deposits, nor was it feasible to think of writing an enforceable contract that would overcome the asymmetric information by spelling out acceptable risk levels and minimal net assets. Thus investor-owned banks were not suitable institutions for savers with modest deposits.

Mutual savings banks resolved the conflict of interest between fixed and residual claimants by making them one in the same. Savers were interested in minimal risk and solvency. Indeed in some cases mutuals in this early period were known to turn down large depositors because it was believed that large depositors would be more likely to be sensitive to economic conditions and a substantial withdrawal could drain a mutual's reserves precisely when it needed them the most. Their general avoidance of risk and their meeting the savings needs of small depositors meant that mutual savings banks were quite successful throughout the nineteenth century. They peaked at 652 mutuals around 1900, and began to decline in number as they faced competition from savings and loans as well as from commercial banks, once the banks became regulated. Of the 514 mutual banks operating in 1960, four-fifths had been created before 1875. By 1980 there was only a third the number of mutual savings banks there were the end of the Great Depression. In 1960 savings banks held 21% of over-the-counter savings and managed 11% of savings institutions' assets. By 1980 the shares had fallen to 11% and 7% respectively. Exit continued as mutuals converted to investor-owned banks with the easing of restrictions on conversions in the 1980s.

The decline of the mutual savings banks following the Great Depression would have been steeper were it not for federal regulations that favored them. In 1933 a ceiling was placed on the interest investor-owned banks could pay on consumer deposits. This ceiling, which was in effect until 1980, was extended to mutual savings banks and S&Ls in 1966. However, because regulation disallowed mutuals and S&Ls from offering checking accounts, to make them more competitive in attracting deposits, they were allowed to pay a quarter of a percentage point more than the rate permitted investor-owned banks. In addition, the mutual savings banks (and

MS&Ls) had been exempted from federal corporate income tax from 1919 to 1952, and until 1962 benefited from a highly preferential tax scheme.

Given their relatively minor place in today's financial world, we will not discuss mutual savings banks in the empirical section. (We also give them a miss because the empirical literature on mutual banks is relatively thin.) Their early period, however, merits recounting for it reveals how the market contracting costs associated with the conflict between fixed and residual claimants and asymmetric information gave rise to the ownership form that theory says should have emerged.

2.2 Mutual savings and loan associations

While mutual savings banks emerged to meet the needs of modest savers, MS&Ls arose shortly thereafter to satisfy the needs of modest borrowers, in particular their demand for funds to purchase or build a house. The early MS&Ls were formed by small groups of working folks who would pool their savings and then take turns borrowing from the pool. Asymmetric information played a role in the formation of these early MS&Ls. The membership had a basis for judging the credit worthiness of fellow members that was superior to that of lending institutions. The fact that the investor-owned banks were generally unwilling to make loans to individuals also played a role. The MS&Ls initially developed in the southern and western parts of the country, regions where the mutual savings banks had not yet spread.^{vii} (In turn, relatively few mutual savings banks arose in areas already served by MS&Ls.)

When all the membership's borrowing needs had been met, the early MS&L would be dissolved. Then MS&Ls began to extend their membership rather than dissolve. The initial extensions were to successive or overlapping groups, with each group's pooled funds being managed separately. Later the differentiation among pools was dropped and membership was

extended to anyone wishing to join. This final expansion phase attracted members who primarily wanted to save rather than borrow. The opening of membership meant that the MS&Ls lost the comparative advantage they had enjoyed earlier in avoiding moral hazard in the adverse selection of borrowers. Also lost was the participation of the membership in the conduct of the MS&L. As we document below, members in today's MS&Ls have essentially no control rights.

The number of MS&Ls reached a high of 12,600 associations in 1928. The subsequent decline can be attributed to the 1933 federally mandated deposit insurance for all federally chartered banks and S&Ls and to the imposition of other banking regulations. With the advent of significant regulation, including deposit insurance, S&Ls managed to stay competitive with banks because of the slight interest premium they were allowed to pay on deposits. The MS&Ls were no longer particularly distinguishable from investor-owned S&Ls and tended to be less aggressive than the latter in attracting new customers. The S&L crisis that followed the 1980s deregulation, coupled with the easing of the restrictions on conversion, resulted in the conversion of many MS&Ls to investor-owned S&Ls. (We analyze conversions in a subsequent section.) In 1960 MS&Ls made up 87% of the 4,098 S&Ls and managed 85% of total S&L assets. By 1980 they were still holding their own: 80% of S&Ls and managing 73% of S&L assets. The 1980s proved to be a turbulent period for S&Ls that produced fundamental shifts in the industry such that by 1989 MS&L accounted for only 59% of S&Ls and managed but 26% of S&L assets. By 1998 only 47.2% of S&Ls were MS&Ls, and the MS&Ls controlled 15.5% of S&L assets.

2.3 Credit unions

CUs, following Canadian and European models, arose to meet the credit needs of low income consumers. The growth of CUs can be broken into five periods: (1) 1909 to 1935 was the formative stage when state chartering spread and CUs experienced rapid growth that paralleled

the growth of S&Ls, their competing source for consumer loans; (2) 1935 to 1941 was a period of rapid increases in the number of CUs spurred by advancing employment and by passage of the Federal Credit Union Act in 1934 (today some 60% of CUs are federally chartered); (3) 1941-1945 was a time when the lack of consumer durables and labor turnover during the war years hampered the growth of CUs; (4) 1945 to the 1981 was a period of steady growth in terms of members and assets, although the number of CUs peaked in at 23,876 CUs in 1969; and (5) 1982 to today has been a period of further consolidation in terms of the number of CUs.

Federal insurance for deposits at commercial banks was instituted in 1934 whereas CUs gained deposit insurance in 1971. The impressive growth of CUs between 1934 and 1971 is strong testimony to the attractiveness of the services they provided and the sense of control members had in keeping their unions solvent. In 1960 CUs assets accounted for 1.7% of savings institutions= assets. By 1980 the share had grown to 2.8%. CUs share of savings institutions= over-the-counter savings were 2.9% in 1960 and 4.7% in 1980. At year-end 1997 there were 11,659 CUs that served 73.5 million members-- roughly one in four Americans-- and had \$360.6 billion in assets.

CUs are distinct from other cooperatives in that, by law, membership is limited to persons who share a common bond of employment or residence or membership in an association. The common bond requirement has meant that most CUs, unlike S&Ls, have not lost the personal ties between the institution and its borrowers and savers. Employment-based CUs, which account for approximately 3 out of 4 CUs, have a comparative advantage in knowing more about borrowers= creditworthiness and thus in minimizing borrower opportunistic behavior. Employment-based CUs often benefit from being able to use payroll deductions as well as employer-subsidized space and personnel. Employers benefit from CUs for CUs can reduce

turnover by contributing a positive factor to the employer-employee relationship as well as raising employees' effective wage.^{viii}

Common bond is an advantage in reducing borrower adverse moral hazard, but is simultaneously a limitation in terms of CUs' ability to attract membership. In 1982 the National Credit Union Administration, the regulator of federally chartered CUs, joined many state regulators in a more liberal interpretation of common bond that allowed, for example, an occupational CU to accept members from firms different from the CU's original membership. The change in policy was motivated in part by the hundreds of CUs that had liquidated due to plant closings and business failures in the 1981-82 recession. The new policy also facilitated financially troubled CUs' merger with healthy CUs. A 1990 challenge to the liberalization brought by a commercial bank was ultimately heard by the U.S. Supreme Court. In 1998 the court ruled that CU members must share a single common bond and gave banks a standing to challenge CU expansions. Congress responded by enacting legislation that undid the court decision. The legislation was something of a compromise in that it restricts the extension of membership to other firms to those with less than 3,000 employees.

Regulation is aimed at countering opportunistic behavior on the part of residual claimants and consequently has eroded the pre-regulation comparative advantage of mutuals had in their merging of fixed and residual claimants' interests. The evolution of MS&Ls into institutions with little or no bond between shareholders leaves CUs as the only lending institutions that reconcile fixed and residual claimants' interest while also minimizing borrower opportunistic behavior.

3 Performance of MS&Ls and CUs

We now turn to the research on MS&Ls, their actual ownership, demutualization, issues of efficiency and of risk-taking and solvency. We then discuss the issue of CU efficiency and risk-taking.

3.1 *MS&L ownership and demutualization*

Shareholders in today=s MS&Ls have essentially no control rights for they lack the right to vote for the board of directors. Instead permanent or "running" proxies result in boards that are self-perpetuating or are elected by a self-perpetuating "board of corporation".^{ix} (Rasmusen 1988) Management need not, and generally does not, fully disclose up-to-date information on the mutual=s financial condition to depositors. (Dunham 1985) Management can decide to return members= deposits and thus terminate their membership. Indeed, when a shareholder in 1958 requested a shareholder list prior to the annual meeting, management not only refused to provide the list but refunded the shareholder=s deposit. The shareholder went to court and lost. (Rasmusen 1988)

The Federal Home Loan Bank Board elevated depositors= relationship to their MS&L from that of owner to depositor-creditor to allow them greater claim should the mutual liquidate. The change confused the ownership role of owners for it is difficult to discern a creditor as an owner. (O=Hara 1981) The decision to convert a MS&L to a stock S&L is one place where depositors-shareholders have the right to vote. Regulations require approval by at least two-thirds of depositors for demutualization. The initiative for conversion, however, rests with management and/or the board.

Conversions allow comparisons among stock S&Ls, MS&Ls, and converts. While the life insurance industry experienced conversions both from mutual to stock and stock to mutual, my review of the literature revealed no stock S&Ls that had mutualized. As noted in the

historical sketch, the 1980s witnessed a fundamental restructuring of the S&L industry and demutualization played a significant role in that industry shift. From 1955 to 1975 the Federal Home Loan Bank Board imposed a moratorium on virtually all conversions. Most states also had a prohibition on demutualization. (S&Ls have either federal or state charters and are regulated accordingly.) The period 1975 to 1982 was an experimental one in which conversion policies were modestly liberalized and during this time 130 MS&Ls demutualized. (Masulis 1987)

In the 1970s the S&L industry was in crisis. On the one hand, S&Ls mostly held low-interest mortgages, while, on the other hand, they faced stiff competition for deposits from money market funds while operating under restrictions (up to 1980) on the interest rate they could pay on deposits. Stock S&Ls had the advantage over MS&Ls of having access to the equity markets to raise capital to try to attract depositors. Meanwhile MS&Ls, because of the interest rate ceiling regulation, were not able to reward shareholders out of earnings. Evidence of the stock S&Ls' relative edge over MS&Ls are the numbers of new S&Ls created between 1975 and 1982: 247 stock S&Ls and 87 MS&Ls. (Kroszner & Strahan 1996) The S&L crisis was also a consequence of the distorting effects of under-priced government guarantees. (Cordell, MacDonald & Wohar 1993) Between 1980 and 1982 regulators lowered capital requirements by more than a half and allowed thrifts to pursue riskier investments all the while insuring deposits. For too many S&Ls these policy changes amounted to an open invitation to engage in moral hazard. Furthermore, regulators had insufficient funds to resolve all insolvencies in the 1980s. One means of recapitalizing troubled thrifts was to bring in new private capital and demutualization was the main channel for this influx. Insolvent and thinly capitalized MS&Ls were much more likely to demutualize during the period of Federal Savings

and Loan Insurance Corporation's cash shortage than either before the early 1980s or after the recapitalization of FSLIC. (Kroszner & Strahan 1996) It is noteworthy that of the 595 demutualizations that took place between 1983 and 1988, 103 of them were supervisory conversions.^x This contrasts sharply with none of the 130 conversions between 1975 and 1982 having been supervisory. (Kroszner & Strahan 1996)

Hadaway & Hadaway (1981) found that the MS&Ls that converted in the mid-1970s behaved very much like their stock counterparts, even prior to conversion, especially in the areas of risk tolerance. Carhill & Hasan (1997) assessed mid-1980s conversions and reached essentially the same conclusions. These findings are not surprising given that regulatory restrictions insulated management for three years. During this period no "person" could own over 10% of shares and there were also certain anti-takeover protections. (Cordell, MacDonald & Wohar 1993) Thus while investor ownership exposes management to the control of shareholders and to the discipline of the market for corporate control, such control and discipline are muffled at the outset.

3.2 Monitoring S&L managers

Given that MS&L shareholders' control over management is a fiction, theory posits that MS&Ls should evidence higher expense preferences than stock S&Ls. However, the evidence on conversions does not support the hypothesis of improved efficiency. Carter and Stover (1990) found no significant change in expense preference variables due to conversion and conversion per se had little apparent impact on the perquisite consumption behavior of management. Hadaway and Hadaway (1981) and Hadaway (1980) concluded that there was little evidence for improved operating efficiency. Carhill and Hasan's (1997) findings similarly contradict the hypothesized expense preference of mutuals. Indeed, after accounting for the

effects of operating environment and strategy, Carhill and Hasan found that extra costs for stock S&Ls averaged about 20-30 basis points (as a % of assets) a year.

The reward system for MS&Ls managers is their compensation because they cannot be given stock options that will produce returns after leaving the association. Thus MS&Ls managers, compared to managers at stock S&Ls, are predicted to evidence lower turnover and to be less aggressive. Furthermore, because depositors at MS&Ls have no effective control over management, MS&Ls may be characterized by lower efficiency and more on-the-job consumption on the part of managers.

The conclusions of researchers using data from the 1970s, typically the mid-1970s, were mixed with some having found and others not having found evidence for mutuals exhibiting a tendency toward expense preference behavior. Simpson and Kohers (1979) concluded that there was no evidence that stock S&Ls were more efficient or to support the hypothesis that MS&Ls have higher expenditures for salaries, employee benefits, fixed assets, and occupancy expenses. Hadaway and Hadaway (1984) could not find significant differences in the ratio of operating expenses to total assets. They did, however, find that stock S&Ls had significantly higher occupancy expenses to total assets ratios. O'Hara (1981), on the other hand, concluded that the ratio of operating expenses to gross operating income was significantly lower for stock S&Ls than for MS&Ls. Verbrugge and Goldstein (1981) and Verbrugge and Jahera (1981) reached the conclusion that MS&Ls displayed expense preference behavior as indicated by higher costs in overall expenses and specific components of personnel and office occupancy expenses. Most of the findings just reported were not as technically sophisticated as later studies and are thus somewhat suspect.^{xi}

Blair and Placone (1988), using data for 1978-1982, broke their sample into quartiles based on assets size and discovered no evidence that mutuals were inherently prone to expense preference. Instead they concluded that assets size, as well as various measures of firm complexity, were major determinants of personnel expenses. Cebenoyan, Cooperman, Register and Hudgins (1993) applied cost frontier methodology and using 1988 data concluded that mutuals and stocks had similar cost structures and that inefficiency was not significantly related to the form of organization. Mester (1993) also applied a cost frontier approach to 1991 data and inferred that various measures of inefficiency showed that, on average, stocks were less efficient than mutuals. The inefficiency of mutuals was in the .08 to .10 range, versus .12 to .16 for stocks. (Differences in the findings of Mester and Cebenoyan *et al* may be due to the fact the fact that Cebenoyan *et al* used a sample that included recent converts.) Hermalin and Wallace (1994) inferred that, controlling for lines of business, stocks were both more efficient and more likely to survive than mutuals. In the absence of controls for lines of business, stocks were less efficient and twice as likely to become insolvent. The difference in the findings is explained by their conclusion that stocks were more likely to emphasize lines of business that were positively correlated with insolvency and inefficiency. They further concluded that the incentives faced by stock S&L decision makers induced them to pursue asset-substitution strategies. In other words, the deregulation of lines of business was not serving stock S&Ls well.

To summarize, the literature, in particular of the more recent and more technically sophisticated literature, as well as the conversion literature cited earlier, effectively and rather unanimously dispels the notion that MS&Ls are more expense-prone and less efficient than stock S&Ls.

3.3 Risk and solvency of S&Ls

Strategies that increase firm volatility result in a transfer of value from fixed to residual claimants. The incentive to pursue more risky strategies depends on whether fixed and residual claimants are distinct groups or one in the same. MS&Ls have no incentive to pursue risk for profits go into retained earnings rather than being distributed to shareholders. Solvency means continued jobs for managers. In addition managers have no means of reaping financial rewards from the higher returns that might result from greater risk. Thus managers' self interest is in line with shareholder-depositors' interest in solvency. Hence theory predicts that MS&Ls should evidence less risk and experience lower insolvency rates.

Depositors experience anxiety when their S&L is threatened with insolvency and, should the S&L become insolvent, face a period of time when they cannot have access to their funds. Deposit insurance minimizes but does not abolish the impact of insolvency on depositors. The broader society is also harmed by the disruption created by insolvency and is typically taxed when the deposit insuring agency's funds run out because premiums were set too low.

The banking crisis unleashed during the Great Depression clearly documents mutuals' propensity for lower risk. 1929 to 1932 saw 5,755 commercial banks fail, with an average annual insolvency rate of 7.2%. Over the same period 6 mutual banks failed, with an average annual insolvency rate of 0.0% (when rounded to one decimal place). S&L, the vast majority of which at that time were mutuals, experienced 597 failures, with an average annual insolvency rate of 1.2%. Four thousand commercial banks went under in 1933 resulting in an insolvency rate of 27.7%. Comparable figures were 4 and 0.01% for mutual banks and 88 and 0.8% for S&Ls.

Turning to more contemporary times, and starting with the 1970s, Hadaway (1980) concluded that MS&Ls had a lower tolerance for risk associated with the use of leverage.

O'Hara (1981) looked at the ratio of real estate owned to average assets and the ratio of borrowed funds to total assets and found that, on average, MS&Ls had significantly lower ratios than did stock S&Ls. Verbrugge and Goldstein (1981) inferred that MS&Ls prefer to hold safer loan portfolios as indicated by significantly lower ratios of scheduled items (that is, loans that are of questionable collectability) to total assets. These earlier studies were not as technically sophisticated as the later work reported below.

The deregulation that took place in the early 1980s opened up new lines of business for S&Ls, lines that were not only new to the thrifts, but typically riskier. Studies from this period offer more insight into the proclivity of stock S&Ls to take risk and of MS&Ls to resist risk. Cordell, MacDonald and Wohar (1993) found that stock S&Ls took greater advantage of the broader investment powers opened up by deregulation. Based on growth and leverage they concluded that stock S&Ls were relatively more risky and indeed, excessive risk taking was greatest at charter stock S&Ls as opposed to stock S&Ls that had once been mutuals. They also found that the consequences of insolvency were harsher at stock S&Ls for the losses at charter stock S&Ls averaged 32.7% of assets as opposed to the 14.2% at MS&Ls. Hermalin and Wallace (1994) determined that stock S&Ls were more likely to engage in lines of business that were associated with insolvency and, in particular, to some extent emphasized the newly deregulated lines that increased the probabilities of their becoming insolvent. Esty (1997) examined cross-sectional data on the cumulative return on assets, and time-series data on the quarterly return on assets. In both cases he used the standard deviation as his measure of volatility. Based on the cumulative return on assets, he found the stock S&L standard deviation was five times larger. Using the quarterly return on assets, he discovered the stock S&L standard deviation to be twice the MS&L standard deviation.^{xii}

The literature consistently supports the thesis that MS&Ls engage in less risk and evidence lower insolvency rates. When we add in the externalities associated with insolvency it is clear that society is better served by the more conservative strategies pursued by MS&Ls.

3.4 *Credit unions*

CUs are fundamentally different from other financial intermediaries in that services are available only to members. This has four important consequences for how one assesses CUs. One, the members provide both the supply of and the demand for loanable funds. Two, analysis of CUs should explicitly consider the possibility of conflict of interest among members in their roles as savers and as borrowers. Three, CUs= cooperative philosophy means that they seek to maximize service to members. The third point means that profit maximization is not the firm=s goal. Cost minimization is probably not a proper objective function either for it conflicts with maximizing the provision of services. Minimizing the spread between the saver and borrower interest rates may not be an adequate objective function for such an objective has implications for earnings available to pay for member services. Four, Fried and Lovell (1994) suggest that CUs might specify an optimal loan failure rate. If a loan failure rate is "too low," then the CU may be failing to meet the borrowing needs of its riskier members and forcing them either to do without credit or to obtain it elsewhere at possibly exorbitant rates. If a loan failure rate is "too high," then earnings and ultimately solvency are threatened. The specification of such an optimum rate is not simple and presumably a single optimum rate is not appropriate for all CUs.

There is a literature that compares efficiency or expense preference at MS&Ls and stock S&Ls. CUs and other financial intermediaries have disparate objective functions, hence there is not a comparable literature for efficiency or expense preference. Instead the articles that are available are studies of the CU industry itself.^{xiii} Cox and Whigham (1984), for example, found

that more efficient CUs pass on their efficiency to members in the deposit and loan rates they set. Keating and Keating (1992) concluded that religious and fraternal CUs were adverse to expense-preference with respect to loans. They also found that higher wages significantly foster deposit expansion for all CU types, although, higher wages also significantly discouraged the quantity of loans. State-chartered CUs are usually thought of as operating in a softer regulatory environment. Taylor (1979) found that state-chartered CUs are not dominated by managerial preference for emoluments for they produce output with less labor. Smith (1986) estimated equations for the net loan rate and the dividend rate and on finding no statistically significant differences in the two sets of regression coefficients concluded that CUs are neutral between savers and borrowers. Such neutrality, he points out, is consistent with the cooperative nature of CUs.

There are, however, reasonable comparisons to be made between CUs and other financial intermediaries despite their having distinct objective functions. Kaushik and Lopez (1996), for example, concluded that CUs have a better record than do commercial and savings banks in "loan workouts" when borrowers experience financial difficulty. They also found that since 1985 the growth in equity capital accounts of CUs has consistently been more than double that of commercial banks, giving them a substantial advantage in overall safety and soundness. Furthermore, they documented CUs= having delinquency rates that are less than one-third those of commercial banks. Clair (1984) looked at financial ratios of federally chartered CUs before and after the provision of federal deposit insurance in 1971. He found that, following a short transition, the quality of loans and the ability of CUs to absorb losses declined. These findings need to be put into context in the case of CUs. To begin with, CUs can make loans only to members, other CUs or through loan participation with other CUs. This means that their loan

portfolios are composed mainly of secured consumer loans for durables. CUs= investment portfolios are even more restricted for investments are limited to government obligations, federal agency obligations or obligations guaranteed by the government. One interpretation of the diminution in loan quality is that, now that member deposits were insured, the CUs could adjust downward their optimal loan default rate and extend greater loan services to members. The CU move toward more member loans is sharply different from the shift toward greater risk exhibited by S&Ls when they were deregulated.

Although some CUs employ "permanent" proxies, most CUs are characterized by member influence in the operation of their union. CU fees are low and their deposit and borrowing rates are highly attractive. The Consumer Federation of America estimated that CUs typically charge 30 to 50% less for checking-account services than do banks. (Reed 1998) The Credit Union National Association claims that membership can save employees an average of \$200 to \$500 per year on financial services. (Kerrigan 1998) In addition to charging low fees, CUs may offer members financial counseling and consumer seminars, and may provide group services such as insurance, group purchasing plans and legal services. Financial counseling and consumer seminars can curtail two kinds of externalities. One is the adverse effects on the environment associated with consumerism, that is, the excessive use of non-renewable resources and the pollution consequences of production and waste disposal. Another is the externalities associated with consumer debt that results in declarations of bankruptcy which take their attendant toll on the individuals and their creditors. One cause of the rise of declarations of personal bankruptcy is the aggressive marketing of credit cards by commercial banks. Even with personal bankruptcies topping a million a year, banks continue to push credit cards for they have

proven to be the industry's most profitable operation. (*Economic Report of the President*, chapter 2, 1998)

3.5 Summary

Mutual savings banks were important nineteenth century financial institutions that resolved the conflict of interest between fixed and residual claimants. They also served as a savings outlet for the emerging urban population of small savers who were not well received at the commercial banks of the day. The emergence of S&Ls, and later CUs, rather effectively stopped the spread of mutual savings banks. Regulation and deposit insurance have hastened the decline of the mutual savings bank industry such that today they are relatively minor players in a banking industry, an industry that is ever more concentrated and globalized.

MS&Ls arose in the 1830s to meet the needs of home buyers and have continued to meet those needs for over a century and a half. MS&Ls have had a real hand in making homes financially accessible to millions of Americans. In some ways, however, the success of individual associations contributed to their losing relative ground to stock S&Ls. The growth of individual institutions caused them to lose their membership identity, and later on their membership control. In the end, from the consumer's perspective, they were not readily distinguishable from stock S&Ls. To society at large, however, MS&Ls are distinguishable for they clearly engage in less risk and have lower insolvency rates. The Great Depression taught us that society has a vested interest in the health of its financial institutions. We have seen ample evidence that, when deregulated, all too many stock S&Ls engaged in moral hazard. The externalities of stock S&Ls' insolvency were passed on to taxpayers. From the risk perspective public policy should favor MS&Ls. Besides having a proven record in their indisposition toward risk, MS&Ls have been found not to be more expense prone and less efficient than stock S&Ls.

CUs play a vital role in the financial lives of some 70 million Americans. The fact that CUs continued to grow in numbers and membership between 1934, when deposit insurance was instituted for commercial banks, and 1971 when deposit insurance was available to CUs, is an impressive witness to the fact that member control rendered deposit insurance less important. Although CUs do not account for a substantial share of overall consumer loans, they provide loans at relatively low cost while not slighting those members who are only savers. CUs have a history of working with members who experience difficulty in meeting scheduled loan payments, thereby maximizing member service while minimizing loan default rates. Recent legislation undid the judicial setback regarding CUs' ability to expand membership beyond their core common bond. This legislative victory indicates that legislators recognize CUs' considerable popularity among voters.

4. Optimal ownership of thrifts and public policy conclusions

Public policy formulation should be informed not only by industry history and empirical findings, but also by economic theory. In particular what the theory of the firm leads us to conclude about the optimal ownership of S&Ls should play a role in determining public policy. This section pulls together the market contracting and ownership costs makes of stock and mutual S&Ls. It also recaps them for CUs. We then make a case for a public policy preference from MS&Ls over stock S&Ls and for support of CUs.

4.1 MS&Ls

The market contracting costs are smaller for MS&Ls than for stock S&Ls. The long term contracting costs for MS&Ls, by their nature, are removed by making the owners and depositors one in the same. The advantage that MS&Ls had in terms of less asymmetric information between borrower and the thrift has diminished, if not disappeared, as MS&Ls grew away from

their historic roots. Given their outstandingly low insolvency rates, MS&Ls should experience a twofold advantage over stock S&Ls in the market contracting costs of regulation. The consistently lower insolvency rates of MS&Ls means significant savings of the social costs associated with insolvency. Furthermore, there are also savings of market costs because when MS&Ls become insolvent their insolvencies are less deep than those of stock S&Ls as measured, for example, by losses as a percent of assets. Turning to the ownership costs, despite depositors' lack of real control over managers, MS&Ls do not experience higher expense preference on the part of their managers. Furthermore, there is little evidence of enhanced efficiency when MS&Ls convert to stock S&Ls. The ownership costs associated with risk bearing are diminished, in theory, by the mutual nature of MS&Ls and, in practice, by their extraordinary insolvency track record. Thus the sum of the market contracting and ownership costs is smaller for MS&Ls than it is for stock S&Ls. Ownership of S&Ls should, from a theory of the firm perspective, be mutual not stock. This does not imply that stock S&Ls should convert to mutuals, or should be required by public policy to do so. It does mean, however, that where feasible, public policy should prefer mutual over stock S&Ls.

From a public policy perspective what most distinguishes MS&Ls and stock S&Ls is the outstanding difference in their insolvency rates. This difference should lead to two policy consequences. One, MS&Ls should be subject to a lower level of regulation than stock S&Ls. Two, MS&Ls should pay a lower deposit insurance fee. The track record of MS&Ls makes it clear that MS&L managers are not particularly susceptible to the moral hazards that diminished regulation and/or deposit insurance fees might invite.

MS&Ls are in decline, both in absolute number and as a share of the S&L industry. Given the conclusion that public policy should favor mutual over stock S&Ls, the obvious policy

question is how to best respond to the shrinkage. The decline is, in part, a consequence of demutualization. Should demutualization be halted? On the one hand, from the perspective that mutuals are the optimal ownership form, demutualizations move the thrift industry in the wrong direction. On the other hand, given that a number of the demutualizations that occurred in the 1980s were of financially troubled MS&Ls, it is not clear that society did not benefit from the liberalization of the conversion policies. The liberalized conversion policies might be revised to limit demutualization to troubled MS&Ls. To encourage the formation of new MS&Ls, while diminishing the likelihood of MS&Ls getting into trouble, two policies should be promulgated. One, an appropriately lower deposit insurance rate should be set for MS&Ls. Two, the federal corporate tax exemption enjoyed by MS&Ls between 1919 and 1952 should be readopted. Failing that, the preferential tax scheme enjoyed up to 1962 should also be reinstated.

MS&Ls are well beyond their early days when members knew one another and member participation was important to the operation of the association. The recent literature on the performance of MS&L managers did not find them to be expense prone or less efficient than their stock S&L counterparts. Perhaps more importantly, MS&L managers deliver results where they most matter, that is, in terms of lower risk tolerance and solvency. It is not obvious, therefore, that public policy should call for a reassertion of MS&L depositors' ownership rights of control.

4.2 CUs

The history of CUs and the literature on their performance uniformly award CUs high marks. They serve their members well in terms of interest rates paid and charged as well as in the cost and extent of services. CUs also have a record of considerable willingness to work with borrowers facing financial difficulties. Not only does this flexibility result in low default rates,

but it is particularly important because CU members tend to have submedian incomes and hence are in greater need of dealing with a flexible institution, one that also minimizes service costs. CUs= high marks mean that they earned the recent legislative policy changes that restored their federal corporate income tax exemption and their ability to expand beyond their core membership.^{xiv} CUs also merit favorable public policy consideration given that their financial counseling and consumer seminars reduce consumerism and personal bankruptcies.^{xv} The evolution of MS&Ls into institutions with little or no bond between shareholders, leaves CUs as the only lending institutions that reconcile fixed and residual claimants' interest while also minimizing borrower opportunistic behavior. CUs merit the continuation of their federal corporate tax exemption.

ENDNOTES

ⁱ The term "nexus of contracts" is often associated with (Jensen & Meckling 1976). Other works that have been important in economists arriving at the contemporary view of the firm include: (Demsetz 1962), (Klein, Crawford & Alchian 1978), (Williamson 1979 & 1988), (Fama 1980), (Grossman & Hart 1986), and (Hart 1988). Then there is the classic work (Coase 1937).

ⁱⁱ To see contracts in a different light consider the physical entities that are traded on a daily basis in markets. What are really traded can be described as "bundles of rights, rights to perform certain acts." (Medema 1996) When we purchase a meal at a restaurant we are really buying the rights to consume the food that is brought us. We have not bought the rights, for example, to throw the food in our server's face. We have long since been familiar with the fact that when we purchase a book we have the right to transfer it from the bookstore's shelf to our own and read it, but that copyright laws restrict our making certain other uses of the book. Copyright protection goes a step further in the case of software. While we think of ourselves as owning the software package we just purchased, what we learn upon opening the box is that when we break the seal to remove the disks from their pouch, that we have thereby agreed to a lease arrangement.

ⁱⁱⁱ This is not to suggest that others have not formulated bases for the optimal assignment of ownership. (See, for example, Grossman & Hart 1986) Instead we recognise that much this section follows Hansmann's work very closely.

^{iv} Hansmann (1996) also discusses the contracting costs associated with market power, "lock in", strategic bargaining, communication of patron preferences, and compromising among diverse patron preferences. These contracting costs primarily apply to situations involving workers and

the firm and hence are most relevant when the workers are viable owners. Because we do not consider worker ownership in our subsequent analysis we omit discussion of these costs.

^v There is a fourth set of mutual credit institutions. These are the various types of agricultural credit institutions established by the federal government between 1916 and 1934. They include land banks and production credit associations. At their outset the various institutions were government controlled, but control structures have evolved toward being cooperatives. The institutions never supplied a significant share of farmers' operating credit.

^{vi} This historical discussion has drawn on Masulis (1987), Hansmann (1996), Heflebower (1980), Rasmusen (1988), and Teck (1968). The figures given are from these sources or have been updated from the US League of Savings Institutions' *Savings Institutions Sourcebook*, FDIC Quarterly Banking Profile (web site: <http://www2.fdic.gov/qbp/1998jun/grbook/qbpsav.pdf>), and the Credit Union National Association's *Annual Report*.

^{vii} Some of the S&Ls were formed by individuals whose were motivated by the potential income to be earned by steering business to ancillary activities and businesses such as attorneys' fees earned from title searches and closings. Such S&Ls tended to suffer from nepotism, low turnover among managers, and relatively high management expenses. (Nichols 1967 and Hadaway 1980)

^{viii} If employers owned the CUs employees might be inclined to view them with suspicion and as such would defeat the benefit to employers of adding to employer-employee relationships.

^{ix} The permanent or running proxies were designed to prevent friendly or unfriendly takeovers.

^x Undercapitalized thrifts underwent supervisory conversions whereby the regulator stepped in to restructure the thrift's balance sheet, reduce or eliminate the depositor's equity, and to recapitalize the thrift.

^{xi} O'Hara and Hadaway & Hadaway, for example, only compared year-to-years means of their various ratios using a simple t test. This technique left them unable to control for other relevant variables such as firm size. Verbrugge and Goldstein and Verbrugge and Jahera used regression analysis that let them control for relevant variables, however, they used a dummy variable to indicate whether the S&L was a mutual. This approach assumes that mutual and stock S&Ls have the same cost functions. Mester (1989) concluded that stocks and mutuals have distinct production technologies.

^{xii} Combining a time-series test discriminates between cross-sectional data cases that are characterized by: (1) a thrift with an extreme high, but consistently positive or negative profits, as high risk even though it had little profit variability; and (2) a thrift with large, off-setting positive and negative returns as low risk despite variability in its returns.

^{xiii} Many CUs, particularly occupational CUs, enjoy space and personnel time donated by the employer. This complicates the analysis of CUs because data limitations often make it difficult to impute values to the donations.

^{xiv} The assault in the courts on CUs by the commercial banking community, and its lobbying

efforts to defeat the recent legislation, was seen by many as not only a David and Goliath story, but a Goliath motivated by greed.