

**Demutualization: Determinants and Consequences  
of the Mutual Holding Company Choice**

**Abstract**

The mutual holding company (MHC) structure allows mutual institutions to issue stock to outside shareholders while maintaining the mutual form. We investigate the determinants and consequences of the MHC choice in the thrift industry. Our results provide evidence that MHCs can be used to reduce the risk of over-investment by controlling the level of new capital raised. Larger and better performing thrifts are more likely to choose the MHC structure over full demutualization. However, compared to a full demutualization, the MHC ownership structure creates additional agency problems that can be observed throughout its life cycle. MHC firms have lower offer-day returns than full demutualizations and are less likely to be acquired. The MHC structure may be viewed as a transitional structure as many MHCs subsequently convert to a full stock-based corporation. Consistent with significant agency costs, the second-stage conversion announcement generates a 12 percent return.

G21 - Banks; Other Depository Institutions;

Keywords: mutual holding company, thrifts, event study, initial public offering, IPO, conversion.

## **Demutualization: Determinants and Consequences of the Mutual Holding Company Choice**

In the thrift industry, firms can be organized as a mutual, a stock company, or as a mutual holding company (MHC), a hybrid of the other two structures. Mutuals are nominally owned by their depositors but actual ownership rights are very limited. In a traditional demutualization, a mutual thrift is converted to a stock company as 100% of the firm is sold in the form of publicly traded shares to depositors and insiders who elect to participate. The new shareholders then jointly own their contributed capital and the equity that accumulated prior to the demutualization. Some mutual thrifts establish a MHC as an alternative means to convert to a stock company. A MHC effectively has two classes of stock. The minority shares are generally sold to participating depositors and insiders in an initial public offer and trade on an exchange in the secondary market. The maximum ownership of publicly traded minority shares is 49.9%. Majority shares are jointly owned by the depositors; however, as with the mutual form, depositors cannot individually sell their shares. This study investigates the determinants and consequences of the choice to use a MHC structure compared to a full demutualization.

The MHC structure provides a variety of benefits under the current regulatory structure. The MHC enables managers to control the level of new capital raised in the initial public offer while maintaining greater managerial control. Selling less than 50% of the stock reduces potential over-investment costs. As stated by Mr. Collins, CEO of United Financial Group, “if it had sold 100% of its stock, the company would have raised far more capital ‘than we could profitably put to use’” (Kline, 2006). Because the Office of Thrift Supervision (OTS) permits the waiver of dividends by majority shareholders (the MHC), minority shareholders benefit from an enhanced dividend stream (Carow, Cox and Roden 2004). Under the Gramm-Leach–Bliley Act,

MHCs also obtain many of the benefits of a financial holding company, permitting MHCs to engage in a wide variety of financial services.<sup>1</sup>

MHC benefits may be outweighed by other potential agency costs as insiders are insulated from market discipline. While the MHC structure permits acquisitions by the firm, the structure curtails acquisition of the MHC.<sup>2</sup> While minority stockholders are given voting rights, the majority shares are held by the MHC. The conflict is summarized in the offer prospectus of BCSB Bankcorp, Inc., “[the] MHC will be able to elect all members of the Board of Directors of the Company, and will be able to control the outcome of all matters presented to the stockholders of the Company for resolution by vote except for certain matters that must be approved by more than a majority of stockholders of the Company.” To the extent that management’s compensation is tied to the performance of the minority shares, some agency costs may be mitigated. In addition, minority shareholders may be partially compensated for their lack of control through enhanced dividends.

Our findings are consistent with a trade-off between concerns relating to over-investment and increased managerial agency costs. We document that firms with the opportunity to raise more funds are more likely to choose the MHC structure. Relaxed MHC regulations also increase the likelihood that a mutual firm chooses the MHC structure. Consistent with greater potential agency costs, we find MHCs have lower first-day stock returns compared to full

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<sup>1</sup> “This change will give MHCs parity with financial holding companies, which have the ability to create financial supermarkets – banking, brokerage and insurance – all offered under one holding company.” (Federal Register, July 12, 2000)

<sup>2</sup> For three years after the first IPO, regulations prevent both full demutualizations and MHCs from becoming an acquisition target. MHCs also have takeover protection for three years following a second-stage conversion.

demutualizations and are less likely to be acquisition targets. Despite weaker first-year stock returns, the three-year stock returns of MHCs outperform full demutualizations.

MHCs may be a transitional structure. Of the 86 MHCs studied, 34 completed a second-stage conversion to a 100% publicly traded stock company. The average time between a MHC first going public and the MHC converting to a full stock-based corporation is 3.9 years. Based on information available at the time of the first offer, we find firm size, performance, and capital are the primary determinants for MHCs converting to full stock-based corporations. The abnormal returns surrounding the announcement of the second-stage offer average 12 percent. We interpret this as evidence that minority shares continue to trade at a discount relative to fully-demutualized firms, reflecting the value of the corporate control market in disciplining publicly traded companies. In the second-stage conversion, depositors are given non-transferable rights to purchase stock at an average discount of 9.9 percent. Minority shareholders are generally excluded from participation in the rights offer. The typical first-day gain for depositors subscribing to the offer is 9.5 percent, while the value of outstanding minority stock decreases by 1.7 percent.

Our contributions to the financial literature are three-fold. First, we document the life cycle of the MHC, showing that MHCs may be viewed as a transitional structure that culminates in a conversion to a full stock-based corporation. Second, we provide evidence that the MHC structure is used to reduce the potential costs of over-investment. Third, we provide evidence that the MHC structure results in greater agency costs than fully demutualized firms. Despite the potential benefits from reduced over-investment, shareholders value voting rights and the benefits of corporate control. Minority shares exhibit lower returns at the initial offer and this

discount continues until the company fully converts to a stock-based corporation, resulting in a 12 percent increase in stock value.

The remainder of this paper is organized as follows. Section 1 provides background information on thrift demutualizations and changes in the regulatory environment. Our data are described in Section 2. Our empirical predictions are summarized in Section 3, results are presented in Section 4, and we state our conclusions in Section 5.

## **1. Background**

Mutual thrift insiders who intend to convert their organizations to stock form must select between a full conversion and a MHC structure. Both methods raise capital for the thrift, create common stock that improves access to future capital, assist the organization in acquisitions, and can be used to offer stock incentives to management. Both methods also allow insiders and participating depositors the opportunity to realize significant initial returns that come when the accumulated value of a mutual is transferred to new shareholders. Barth, Brumbaugh and Kleidon (1994) report average initial returns from full conversions of 24% for 1992 and 29% for 1993. Carow, Cox, and Roden (2007) find a 20.8% average initial return from a sample of 347 mutual thrifts that utilized full demutualizations from 1991 to 2004. Carow, Cox, and Roden (2004) analyze the dividend policy of mutual holding companies, and find a 19.9% average return for 61 MHCs on the offer day.

While conversion to a full stock company or a MHC both create stock, raise capital, and enrich participants in the IPO, there are important differences between the two alternatives. The MHC alternative does not completely eliminate the mutual nature of the thrift. When choosing the MHC structure, management frequently argues that a full demutualization would have raised

more capital than the firm could efficiently use. A MHC raises less cash because it can only sell a maximum of 49.9 percent of the company. As a result, it can be argued that MHC conversions allow thrift insiders to raise reasonable levels of capital that can be invested more appropriately than the larger amounts raised in a full demutualization.

The MHC structure essentially creates two classes of common stock. One class is privately held by the MHC and the second class is publicly held by the minority stockholders. Because voting is non-cumulative for directors, minority shareholders generally have little voting power, making hostile acquisitions virtually impossible. Bebchuk, Kraakman, and Triantis (1998) model how a dual-class structure can substantially increase agency costs. Lease, McConnell, and Mikkelsen (1983), Megginson (1990), Zingales (1995), and Cox and Roden (2002) show that shares with inferior voting rights trade at a discount compared to shares with superior voting rights. Similarly, Harris and Raviv (1988), Smart and Zutter (2003), Claessens, Djankov, Fan, and Lang (2002), and Cronquist and Nilsson (2003) show that separation of cash-flow from voting rights is associated with lower market values.

Cox and Roden (2002) also find that preferred dividend promises to dual-class shareholders with inferior voting rights mitigate the valuation differences between classes. Carow, Cox, and Roden (2004) show that MHCs transfer wealth to minority shareholders through a disparate dividend policy. MHCs pay dividends to minority shareholders and omit dividends to majority shareholders. Carow et al show that the superior dividends of minority shares are positively correlated with higher prices for the minority shares of publicly traded MHCs.

From the standpoint of thrift insiders, the MHC offers conversion to a stock company without becoming subject to market discipline.<sup>3</sup> Louis (2004) and Hughes et al (2003) show that bank insiders may value takeover protection, even though it reduces the market value of the bank. The MHC structure allows thrift insiders to execute a two-stage exit strategy where they retain their control of the thrift until a time of their choosing when they may initiate conversion of the MHC to a full stock company. This is accomplished through a process termed a second-stage conversion.

In a second-stage conversion, the shares held by the public shareholders are exchanged for shares of a “new” holding company. Additional shares of the “new” holding company are offered to the members of the mutual holding company and to the public in accordance with the plan of conversion. The offer is very similar to the first-stage (IPO of the MHC) subscription offer. As in a first-stage offer, “ownership” in the mutual holding company does not imply that the mutual’s eligible account holders will be paid the value of their ownership; it only provides eligible account holders the opportunity to purchase additional shares at the subscription price. Pre-existing minority shares are converted into the new stock at a specified exchange ratio that is calculated to retain their percentage ownership. In this way, the MHC dissolves the former structure and converts to a full stock-based corporation.

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<sup>3</sup> “A majority of the voting stock of the Company will be owned by the MHC, which is a mutual institution that will be controlled by the existing Board of Directors of the Bank. While this structure will permit management to focus on the Company's and the Bank's long-term business strategy for growth and capital redeployment without undue pressure from stockholders, it will also serve to perpetuate the existing management and directors of the Bank. The MHC will be able to elect all members of the Board of Directors of the Company, and will be able to control the outcome of all matters presented to the stockholders of the Company for resolution by vote except for certain matters that must be approved by more than a majority of stockholders of the Company. No assurance can be given that the Company will not take action adverse to the interests of the minority stockholders” (excerpt from the prospectus of BCSB Bankcorp Inc).

The second-stage offer has aspects very similar to a rights offer, but the economic implications differ. In a traditional rights offer, existing stockholders receive rights to purchase the stock at a discounted price and the rights are saleable. In a MHC second-stage conversion, the rights to purchase additional shares are given first to the existing thrift depositors. Thus, the larger the discount, the greater the potential loss in value to existing minority stockholders who are not able to participate in the offer until after subscriptions by depositors and employees are filled. Similar to the first-stage conversion, depositors who do not purchase stock at the offer price forfeit the economic value of their rights.

The incentives of inside participants in the second-stage offer differ from their incentives in a first-stage offer. In second-stage conversions insiders must balance potential losses in the value of their pre-existing stock holdings with the potential gains from participation in a heavily discounted second offer. A lower offer price reduces their out-of-pocket cost of increasing their ownership and increases their prospects for capital gains on the newly purchased shares. Greater inside purchases in the second offer align the interest of insiders with the investment objectives of subscribers, but are at odds with existing stockholders who are not given the same rights to participate in the new offer.

Changing regulations are believed to have a major impact on the choice of MHC versus full demutualization and on the decision to complete a second-stage conversion. Congress first authorized mutual holding companies in 1987, but prior to 1992, only one thrift adopted the MHC structure. This delay in adoption and the somewhat slow and uneven growth in popularity of the MHC structure might be attributed to thrift insider concern about the regulatory response to the new ownership structure. For example, despite Congressional approval in 1987, the OTS

first published proposed regulations for MHCs in 1991 and the regulations were not finalized until 1993.

Beginning in 1995, the OTS and FDIC prohibited MHCs from waiving MHC dividends for the benefit of minority shareholders (grandfathering existing MHCs). However, in 2000 the OTS revised its regulations, no longer requiring MHCs to dilute minority ownership to compensate MHC shareholders for dividends received by the minority shareholders.<sup>4</sup>

In 1997 “the Office of Thrift Supervision (OTS) allowed mutual depository institutions, such as a credit union, to convert to a federal mutual thrift charter in one step rather than the two steps formerly required.”<sup>5</sup> In 1998, Congress restricted the power of the National Credit Union Administration (NCUA) from preventing credit union conversions to thrift charters (Luse and Gorman, 2005). Also in 1998, the OTS authorized a three-tier MHC, allowing MHCs to set up a modified corporate structure with a new subsidiary that could sell stock and later buy it back without adverse tax consequences.<sup>6</sup> Under the Gramm-Leach-Bliley Act of 1999, MHCs were allowed to engage in the same types of activities as financial holding companies, allowing them to participate in banking, brokerage and insurance. In 2002, regulations were also relaxed on how MHCs may implement management recognition plans (MRPs) and stock option plans. Prior to 2002, MRPs were limited to 4 percent of shares issued and option plans were limited to 10 percent of issued shares. Because MHCs issue fewer shares than full demutualizations these limitations reduced managements’ incentives to establish MHCs. In 2002, the “OTS set the maximum size for stock benefit plans as if the minority stock issuance had been 49.0 percent of

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<sup>4</sup> Federal Register, July 12, 2000

<sup>5</sup> Press Release OTS, August 26, 1997

<sup>6</sup> Press Release OTS, June 5, 1997 and Press Release OTS, March 9, 1998

the subsidiary company's stock." This allows MHCs more flexibility in the percentage of the company that will be sold in minority shares.

The expansion of the MHC structural choices in 1997 and 1998, the expansion of MHC product powers in 2000, and the removal of regulations prohibiting dividend waivers in 2000, demonstrate policy changes that "were deliberately made to make the MHC structure more attractive as a long-term alternative to full conversion."<sup>7</sup>

## **2. Data**

Our sample includes first and second-stage conversions of mutual thrifts from 1991 to 2004. Prior to 1991, only one thrift used a mutual holding company structure. The sample period begins at the time of the Federal Deposit Insurance Corporation Improvement Act (FDICIA) of 1991 that created a new regulatory regime where unhealthy institutions were closed and healthier institutions began to prosper. It is also the year of the first published MHC regulations by the OTS. Our sample of 86 MHCs is obtained from SNL DataSource and SNL Securities Monthly Market Report. Our sample of non-MHC thrifts, also obtained from SNL DataSource, consists of 348 thrifts that fully demutualized at the time of their initial public offering. SNL DataSource provides details on proceeds, offer price, shares outstanding, insider participation, ROA, core capital ratio, and asset growth. We also use SNL DataSource to calculate the thrift industry average price-to-book ratio.

Table 1 provides the frequency of each type of conversion by year. Figure 1 shows the growth in the proportion of MHCs from 0 percent in 1991 to 40 percent in 2002 to 85 percent in

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<sup>7</sup> Federal Register, July 12, 2000

2004. Of the 86 MHCs that initiated IPOs over the sample period, 34 have subsequently completed a second-stage conversion.

Table 2 provides summary information for our sample and compares characteristics of thrifts that use a MHC structure with thrifts that undergo a full conversion. Thrifts that choose the MHC structure have larger pre-conversion total assets. Consistent with a motivation to avoid over-investment, the same thrifts raised smaller amounts of new capital in the initial offer. *ASSETS* is calculated as the log of the firm's total assets in thousands from the year prior to the demutualization. *PROC* is defined as the log of proceeds from the offer in thousands. *GROWTH* is the percent increase in assets from the year prior to the conversion. *ROA* is the percent return on assets in the year prior to the offer. *CORE* is the core capital ratio as a percentage from the year prior to the offer. *IND\_P/B* is the industry average price-to-book ratio in the year of the demutualization. *INSIDE* is the percent of the shares purchased by officers and directors. *ΔPRICE* is the percent price change on the first day of the IPO.

MHC firms are significantly larger, faster growing, more profitable, and they convert during times of higher industry price-to-book ratios. If MHCs are considered a two-stage conversion process, then larger thrifts are better able to spread the cost of underwriting over two offers. Thrifts with superior growth and profitability are typically able to raise larger amounts of proceeds per share in an IPO resulting in increased risk of raising too much capital. When the industry price-to-book ratio *IND\_P/B* is higher there is additional risk of raising too much capital and, again, the MHC structure may be beneficial in reducing the agency costs related to over-investment. Thrift insiders may also choose to use the MHC structure during periods with high industry price-to-book ratios to protect themselves from the increased level of takeover activity

that accompanies higher stock prices. Without controlling for other factors, the average offer-day returns  $\Delta PRICE$  are not significantly different.

### **3. Empirical Predictions**

In this section we provide a brief overview of our empirical predictions relating to the determinants and consequences of the choice of the MHC structure. This discussion provides a framework for the results section. We summarize the related literature as we present the results in the next section.

#### *3.1 Prediction 1*

Managers choose a structural form to mitigate over-investment costs. Since larger thrifts, better performing thrifts, and thrifts that convert under favorable industry conditions are capable of raising more capital, these managers are more likely to choose the MHC structure over full demutualization.

#### *3.2 Prediction 2*

A more favorable regulatory environment increases the popularity of the MHC structure as an alternative to full demutualization. Throughout our sample period many regulations were enacted that are favorable to the MHC choice. Removal of restrictions on dividends, greater flexibility in allowing credit unions to demutualize, increased product powers, and relaxed regulations relating to MRPs and stock option plans encourage greater usage of MHCs.

#### *3.3 Prediction 3*

Compared to a full demutualization, the MHC ownership structure creates additional agency problems that can be observed throughout its life cycle. Greater managerial agency costs are expected to result in smaller price increases for MHCs on the offer day. After formation, the

MHC structure reduces access to the corporate control market, reducing the likelihood of being acquired. The stock price reaction to the announcement that the company intends to terminate the MHC structure provides a measure of the size of the agency costs related to the MHC structure compared to full demutualization. If investors discount the value of minority stock ownership in MHCs, the announcement of the conversion to a full stock-based company will be treated positively by investors.

## **4. Results**

### *4.1 Full demutualization versus MHC.*

Our first and second empirical predictions relate to the characteristics of thrifts that choose the MHC structure over full demutualization. Prior studies have indicated that determinants of the IPO decision include greater capital, firm growth, industry growth, and assets (Davis, 2001; Maksimovic and Unal, 1993; Pagano, Panetta, and Zingales, 1998). Carow et al (2007) show assets, industry price-to-book ratios, capital, and profitability are the primary determinants of the level of proceeds in full demutualizations.

Table 3 presents the results from a logistic regression of the choice to use a MHC structure versus a full demutualization. Unlike previous studies that find well-capitalized mutual thrifts are more likely to convert to a stock company, we do not find evidence that the pre-existing level of capital influences the MHC choice. However, the results are consistent with our first prediction that thrift insiders will choose the MHC structure to reduce the level of proceeds that will be raised in a demutualization. As shown in Carow et al, larger and more profitable firms raise more capital suggesting greater potential for over-investment. Consistent with our first prediction, we find that larger, more profitable thrifts are more likely to choose the MHC structure. Consistent with our second prediction, the regulatory environment also has a

significant impact on the decision to use the MHC structure. Table 3 shows that firms that demutualize in later years with a more favorable regulatory environment are more likely to use the MHC structure.

#### 4.2 *IPO returns*

Our third prediction suggests that investors discount the value of the MHC firms due to higher levels of potential agency problems. In a MHC conversion, investors who participate in the offer become minority shareholders with limited control rights similar to those in dual-class firms. Harris and Raviv (1988, 1989) and Grossman and Hart (1988) model security design and show that in most cases dual-class shares are suboptimal. Table 4 provides the results of an ordinary least squares regression using offer day returns as the dependent variable. The offer day return at the IPO is higher for larger, more profitable firms, with greater inside participation and higher industry price-to-book ratios. The coefficients for the control variables are consistent with findings of Carow et al (2007) and the model presented in Masulis (1987) and Maksimovic and Unal (1993). Controlling for the determinants of initial returns, we find that MHCs have lower returns (-3.58%) on the offer date than full demutualizations.

#### 4.3 *Probability of becoming a target*

Zingales (1995) and Mello and Parsons (1998) view the IPO as the first stage in establishing a price for the subsequent sale of the firm. Rosen, Smart, and Zutter (2005) show that banks undergoing an IPO are significantly more likely to become acquisition targets than a matched sample of private banks. However, Field and Karpoff (2003) show that IPO firms with dual-class stock or anti-takeover provisions are less likely to be acquired in the five years following the offer. As shown in Table 5, over our sample period, nearly 39 percent of full demutualizations were acquired while only 9 percent of firms that chose the MHC structure were

ultimately acquired. Of the 8 MHCs that became targets, only one did not complete a second-stage conversion prior to being acquired. The number of years from the time of the IPO to the time of acquisition is not different for MHCs compared to full demutualizations. Consistent with our third prediction, MHCs are significantly less likely to become targets than full demutualizations, confirming that the MHC structure offers protection from the corporate control market.

Consistent with an influx of additional capital, Rosen, Smart, and Zutter (2005) show that banks that convert to public ownership are more likely to make acquisitions. The capital raised in the IPO can be used to finance cash acquisitions and the firm's publicly traded stock provides a better medium for stock-financed acquisitions. Since the offer proceeds are smaller and the stock of the MHC is less appealing as a medium of exchange due to its restricted control rights, MHCs may make fewer acquisitions relative to fully demutualized firms.

We find that the percent of MHCs making acquisitions is similar to the percent of fully demutualizing firms making acquisitions; however, the number of years before making an acquisition is significantly longer for MHCs. Since MHCs raise proportionately less capital and have a more complex ownership structure, they typically wait to complete a second-stage conversion to raise the necessary capital for an acquisition. Of the 16 MHCs that made acquisitions, only 4 made an acquisition prior to a second-stage conversion, while 12 made an acquisition after completing a second-stage conversion.

#### *4.4 Post IPO performance*

Using a sample of banks and thrifts that go public between 1983 and 1991, Hogue and Loughran (1999) examine post-IPO performance. They find that IPOs substantially underperform the industry in the years following the IPO. Table 6 summarizes measures of

performance after the demutualization (returns exclude offer day initial returns). One-year stock returns for non-MHCs average 31.7 percent (-5.6 percent net of industry returns) compared to 20.6 percent for MHCs (-7.6 percent net of industry). However, after three years, cumulative stock returns for MHCs are significantly greater than the three-year stock returns of full demutualizations; non-MHCs average 88.0 percent (-53.6 percent net of industry) and MHCs average 123.7 percent (-12.2 percent net of industry). In summary, when we control for industry performance, MHCs significantly outperform full conversions in the three years following the IPO.<sup>8</sup> However, both forms of thrift IPOs underperform relative to their industry.

#### 4.5 *Second-Stage Conversion Choice*

The mutual holding company structure appears to be a transitional structure. Of the 86 firms that chose to use the MHC structure, 34 chose to complete a second-stage conversion. For these 34 companies, the average time between the IPO and the completion of the second-stage conversion is 3.9 years. For MHCs that do not convert the average time from IPO to the end of our sample period is only 3.7 years, indicating that the percent of MHCs that will ultimately conduct a second-stage conversion may be significantly higher.

A second-stage conversion may be considered a hybrid of an IPO and a seasoned equity offer. Bishop and Lys (2001) include bank size, capital, earnings, and growth as the primary determinants of bank capital issuance. Similarly, Dittmann and Ulbricht (2005) show that dual-stock firms are most likely to complete a share unification when the firm is in need of additional capital. In Dittmann and Ulbricht's sample of 29 stocks that announce a share unification, 44 percent raise capital in the two years following the unification. We use the information available

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<sup>8</sup> In regressions not reported, we show that three-year cumulative returns are still significantly higher for MHCs after we control for whether the firm makes an acquisition or becomes a target.

at the time of the first offer to evaluate the second-stage conversion choice. Based on Table 7, MHCs that undergo a second-stage conversion to a full stock company are larger and less capitalized. Larger MHCs are able to spread the cost of a second-stage conversion over a greater asset base. If thrifts convert to a MHC to avoid over-investment, then this result is consistent with utilizing a second-stage offer to respond to their changing capital needs.<sup>9</sup>

#### *4.6 Second-stage conversion returns*

Table 8 reports the results of the abnormal returns surrounding the initial announcement of the second-stage conversion and the offer date. To determine the abnormal returns, we use the market model as specified in Brown and Warner (1985) and Mikkelson and Partch (1989). Our estimation period begins 120 days prior to the event and ends the day prior to the event. The market is proxied by the CRSP value-weighted index.

The mean two-day abnormal return at the time of the announcement of the second-stage conversion is 12.1 percent, reflecting a positive investor reaction to the news. To gain a greater understanding of magnitude, we compare this result to prior research analyzing the announcements of seasoned stock offers. This literature shows significant negative average abnormal returns of approximately 3 percent over a two-day announcement period for firm commitment offers (Asquith and Mullins, 1986; Masulis and Korwar, 1986; Eckbo and Masulis, 1992) and negative average abnormal returns of approximately 1.5 percent for rights offers (White and Lusztig, 1980; Eckbo and Masulis, 1992).

Our finding of a strong positive investor reaction to the second stage conversion is consistent with prior studies that show that agency costs reduce the value of dual-class stocks (Smart and Zutter, 2003). Dittmann and Ulbricht (2005) show market values increase by 4

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<sup>9</sup> Similar results are found using firm characteristics from two years after the initial public offering.

percent for German companies abolishing their dual-class structure. Cox and Roden (2002), in a study of U.S. dual-class firms that offer equal dividends to each class, find that low-vote shares trade at an 11.1 percent discount to high-vote shares. We conclude that the significantly higher announcement returns for second-stage conversions is a result of the elimination of the MHC dual-class structure that insulates MHC insiders from market discipline.

At the time of the second-stage offer, there are two groups of participants. Non-transferable rights to purchase the shares at the offer price are issued to depositors of the MHC. As depositors in the MHC, insiders also participate in the offer. Minority shareholders only obtain a right to purchase at the offer price if a significant portion of depositors forfeit their rights, which is rarely the case. Because the stock trades publicly prior to the second-stage offer, we have an existing stock price to compare to the offer price. Adjusting for the conversion ratio, we calculate the offer price discount, as in Bohren, Eckbo, and Michalsen (1997).<sup>10</sup>

Loderer, Sheehan, and Kadlec (1991), Eckbo and Masulis (1992), Safieddine and Wilhelm (1996), and Mola and Loughran (2003) report average offer price discounts ranging from 0.3 to 3.0 percent for seasoned equity offers. For rights offers, Eckbo and Masulis (1992) report an average discount from the prior day's closing price of 8.3 percent for industrials and 12.7 percent for utility issuers. For our sample of MHC second-stage offers, the average discount is 9.9 percent with a standard deviation of 8.0 percent and a range of -0.1 to 30.3 percent.

The level of discounts and related agency problems are expected to influence the company's stock price. To measure this effect, we calculate the abnormal returns to subscribers and non-subscribers surrounding the second-stage offer date. The abnormal return to subscribers

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<sup>10</sup> Offer price discount = (prior price/conversion ratio - offer price) / (prior price/conversion ratio)

is calculated as the percent change in market price relative to the offer price with adjustments based on the market model. This return is from the perspective of a new investor, similar to the measurement used by Safieddine and Wilhelm (1999). The abnormal return to non-subscribers is calculated as the change in price from the close of the previous day with adjustments based on the market model. This return is from the perspective of an existing minority shareholder who does not participate in the second-stage offer. Table 8 parts B and C show the average one-day cumulative abnormal return to subscribers is 9.5% while the average return to existing shareholders who did not participate in the second-stage offer is -1.7% on the offer date (each significant at the 1% level).<sup>11</sup> The negative return to existing stockholders along with the positive return to new stockholders implies a transfer of wealth from minority shareholders to offer participants.

At the time of the IPO for full demutualizations, Carow et al (2007) conclude that insiders influence the terms of the offer to enhance the initial stock price reactions, resulting in a positive correlation between the level of inside participation and the initial returns. In a second-stage conversion, insiders have a second opportunity to set the terms of the offer to influence stock returns. The discount of 9.9% followed by a 9.5% abnormal return demonstrates the potential for large gains to subscribers.

In first-stage conversions, insiders who participate in the offer have clear incentive to set large discounts. However, in second-stage conversions insiders must balance potential losses in the value of their pre-existing stock holdings with the potential gains from inside participation in

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<sup>11</sup> In studies of non-MHC stock offers, Safieddine and Wilhelm (1999) report the average offer-to-close return is 0.52 percent, which lies between the returns of 0.12 percent observed by Loderer et al (1991) and 0.82 reported in Smith (1977). Eckbo and Masulis (1992) report offer day returns of -0.21 percent for firm commitments, -1.10 percent for standby rights, and -1.33 percent for uninsured rights.

a heavily discounted second offer. Inside participation averages 0.9% (with a range of 0 to 3.3%) of outstanding shares on the day of the second-stage conversion. In regressions not reported, we do not find evidence that pre-existing holdings and/or inside participation are correlated with the discount or the abnormal returns to subscribers.

## **5. Conclusions**

We provide a comprehensive analysis of the determinants and consequences of the MHC structure as an alternative to full demutualization. In determining the appropriate structure for a thrift IPO, the MHC structure has clear benefits that must be weighed against its agency costs. The MHC structure provides a flexible alternative to full demutualizations allowing the thrift to maintain its mutual structure while accessing capital markets. Thrift insiders are able to retain protection from takeovers while outside minority shareholders are subjected to the agency costs of an insulated management.

Our results provide evidence that managers choose the MHC structure to mitigate over-investment costs by controlling the level of new capital raised. Larger, better performing thrifts are more likely to choose the MHC structure over full demutualization. These firms are typically capable of raising more capital and are more likely to benefit from an ownership structure that restricts IPO offers to less than 50% of the stock.

Ignoring offer day returns and controlling for industry stock return performance, full demutualizations outperform MHCs in the year following the IPO, but MHCs outperform full conversions over the three years following the IPO. However, both forms of thrift IPOs underperform relative to the industry.

Compared to a full demutualization, the MHC ownership structure creates additional agency problems that can be observed throughout its life cycle. Consistent with greater

managerial agency costs, we find smaller (-3.58 percent) price increases for MHCs on the offer day. After formation, the MHC structure reduces access to the corporate control market, reducing the likelihood of being acquired. Over our sample period, nearly 39 percent of full demutualizations were acquired while only 9 percent of firms that chose the MHC structure were ultimately acquired. Of the 8 MHCs that became targets, only one was acquired before it completed a second-stage conversion. The stock price reaction to the announcement that a MHC intends to fully convert to a stock company provides a measure of the size of the agency costs related to the MHC structure compared to full demutualization. We find a positive stock price reaction (12.1 percent) to the announcement of a second-stage offer, providing evidence that the agency costs related to the MHC structure outweigh the benefits for minority stockholders. We conclude that this positive shareholder reaction reflects the elimination of the MHC dual-class structure that insulates MHC insiders from market discipline.

Over the past ten years, more favorable regulations have increased the use of MHCs compared to full demutualizations. However, based on our findings, the MHC appears to be a transitional structure, as MHCs often convert to full stock-based corporations through a second-stage offer. The potential for growth in the MHC structure remains strong with over 12,000 mutual financial institutions in the United States eligible to adopt the MHC structure. In addition to approximately 400 mutual thrifts and 1,360 mutual insurance companies, the greatest potential may lie with the approximately 10,700 credit unions, some of which are converting to mutual saving banks and subsequently forming MHCs to facilitate conversion to stock companies (Merrick, 2001).

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**Table 1**  
**Frequency of Sample Conversions by Year**

<b>Year</b>	<b>Non-MHCs</b>	<b>MHCs</b>	<b>Total</b>	<b>MHC Second-Stage Conversions</b>
1991	3	0	3	
1992	19	4	23	
1993	40	5	45	
1994	55	13	68	1
1995	61	5	66	3
1996	54	2	56	4
1997	29	4	33	3
1998	35	14	49	6
1999	18	9	27	1
2000	10	4	14	2
2001	9	3	12	2
2002	6	4	10	3
2003	6	2	8	5
2004	3	17	20	4
<b>Total</b>	<b>348</b>	<b>86</b>	<b>434</b>	<b>34</b>

**Figure 1**  
**MHCs as a Percent of Total Conversions**



**Table 2**  
**Summary Statistics of MHC and Non-MHCs Prior to the IPO**

*ASSETS* is calculated as the log of the firm's total assets in thousands from the year prior to the demutualization. *PROC* is defined as the log of proceeds from the offer in thousands. *GROWTH* is the percent increase in assets from the year prior to the conversion. *ROA* is the percent return on assets in the year prior to the offer. *CORE* is the core capital ratio as a percentage from the year prior to the offer. *IND\_P/B* is the industry average price to book ratio at the year of the demutualization. *INSIDE* is the percent of the shares purchased by officers and directors. *APRICE* is the percent price change at the IPO.

<b>Variable</b>	<b>Non-MHC firms (n = 348)</b>	<b>MHC firms (n = 86)</b>	<b>t-value for difference in means</b>	<b>p-value for difference in means</b>
Total Assets from the Year Prior to Conversion	\$286,006,300	\$370,440,260	-2.08	.0384
<i>ASSETS</i>	11.99	12.42	-3.49	.0005
Value of the Proceeds	\$34,701,730	\$26,174,940	1.89	.0590
<i>PROC</i>	9.90	9.64	2.10	.0364
<i>GROWTH</i>	5.34%	7.56%	-2.18	.0300
<i>ROA</i>	0.68%	0.78%	-1.79	.0734
<i>CORE</i>	18.67%	19.07%	-0.44	-.6634
<i>IND_P/B</i>	97.55%	111.57%	-5.21	.0001
<i>INSIDE</i>	8.12%	8.25%	-0.18	.8568
<i>APRICE</i>	20.77%	20.81%	-0.02	.9841

**Table 3**  
**Logit Estimates of Choice of Demutualization Structure**

The dependent variable is an indicator variable equal to 1 if the thrift chooses a mutual holding company structure and a 0 if the company chooses a full demutualization. *ASSETS* is calculated as the log of the firm's total assets in thousands from the year prior to the demutualization. *GROWTH* is the percent increase in assets from the year prior to the conversion. *ROA* is the percent return on assets in the year prior to the offer. *CORE* is the core capital ratio as a percentage from the year prior to the offer. *IND\_P/B* is the industry average price to book ratio at the year of the demutualization. *TIME* is defined as the offer year minus 1990. The p-values are in parentheses.

<i>Intercept</i>	-10.072 (.001) <sup>***</sup>
<i>ASSETS</i>	0.442 (.001) <sup>***</sup>
<i>GROWTH</i>	0.002 (.885)
<i>ROA</i>	.736 (.036) <sup>**</sup>
<i>CORE</i>	0.06 (.768)
<i>IND_P/B</i>	0.011 (.144)
<i>TIME</i>	0.213 (.001) <sup>***</sup>
Observations	434
Likelihood Ratio	63.19
P-Value	.0001

**Table 4**  
**Regression of Offer Day Returns**

The dependent variable is the one-day percent price change at the time of the IPO. *ASSETS* is calculated as the log of the firm's total assets in thousands from the year prior to the demutualization. *GROWTH* is the percent increase in assets from the year prior to the conversion. *ROA* is the percent return-on-assets in the year prior to the offer. *CORE* is the core capital ratio as a percentage from the year prior to the offer. *IND\_P/B* is the industry average price to book ratio at the year of the demutualization. *EXCH* is equal to one if traded on the NYSE, AMEX, or NASDAQ – zero otherwise. *MHC* is an indicator variable equal to 1 if the thrift chooses a mutual holding company structure and 0 if the company chooses a full demutualization. *INSIDE* is the percent of the shares purchased by officers and directors. *INDEX* is the return on the thrift index in the six week period preceding the offer. *CMT* is the six week change in the ten-year Constant Maturity Treasury yield. \*, \*\*, and \*\*\* denote significance at the .1, .05, and .01 levels respectively for two-tailed tests.

Independent Variables	Dependent Variable: Offer Day Return
<i>Intercept</i>	-82.43 (-6.60)***
<i>ASSETS</i>	5.19 (5.79)***
<i>GROWTH</i>	0.04 (0.47)
<i>ROA</i>	6.89 (4.27)***
<i>CORE</i>	0.14 (1.45)
<i>IND_P/B</i>	0.20 (6.43)***
<i>EXCH</i>	-0.07 (-0.04)
<i>MHC</i>	-3.58 (-2.04)**
<i>INSIDE</i>	0.47 (3.51)***
<i>INDEX</i>	2.44 (11.37)***
<i>CMT</i>	-1.51 (-0.73)
Observations	434
Adjusted R <sup>2</sup>	.331
<i>p</i> -value of <i>F</i> -test	<.0001

**Table 5**  
**Summary Statistics on Mergers and Acquisitions after the IPO**

Variable	Non- MHC firms (n = 348)	MHC firms (n = 86)	t-value for difference in means	p-value for difference in means
Percent of firms that were subsequently acquired	38.8	9.3	5.37	0.000
Number of years from initial offer to becoming a target	3.93	3.88	0.08	0.935
Percent of firms that subsequently made an acquisition	23.0	18.6	0.88	0.382
Number of years from initial offer to the acquisition	3.35	6.94	-5.07	0.000

**Table 6**  
**Summary Statistics of Stock Performance after the IPO**

Cumulative stock returns and cumulative stock returns net of industry exclude the return on the offer date. The industry returns are based on a sample of the thrift and bank stocks available on CRSP during the sample period. Sample size decreases due to acquisition and delisting. Cumulative stock returns do not differ significantly if we include returns up to the acquisition or delisting date.

Variable	Non-MHC firms	MHC firms	t-value for difference in means	p-value for difference in means
<b>Cumulative Stock Returns</b>				
One year after IPO (sample size)	31.66% (272)	20.58% (48)	2.14	0.033
Two years after IPO (sample size)	55.80% (261)	53.09% (48)	0.30	0.764
Three years after IPO (sample size)	87.96% (237)	123.68% (47)	-2.38	0.018
<b>Cumulative Stock Returns Net of Industry</b>				
One year after IPO (sample size)	-5.60% (272)	-7.60% (48)	0.50	0.618
Two years after IPO (sample size)	-31.20% (261)	-14.60% (48)	-2.34	0.020
Three years after IPO (sample size)	-53.60% (237)	-12.20% (47)	-3.46	0.001

**Table 7**  
**Logit Estimates of a Second-Stage Conversion**

The dependent variable is an indicator variable equal to 1 if the MHC chooses a second-stage conversion and 0 otherwise. We use data at the time of the IPO. *ASSETS* is calculated as the log of the firm's total assets in thousands from the year prior to the demutualization. *GROWTH* is the percent increase in assets from the year prior to the conversion. *ROA* is the percent return on assets in the year prior to the offer. *CORE* is the core capital ratio as a percentage from the year prior to the offer. *INSIDE* is the percent of the shares purchased by officers and directors. *TIME* is equal to the year 2005 less the offer year. The p-values are in parentheses.

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<i>Intercept</i>	-16.771 (.018)**
<i>ASSETS</i>	1.116 (.013)**
<i>GROWTH</i>	-0.071 (.113)
<i>ROA</i>	0.506 (.572)
<i>CORE</i>	-0.124 (.047)**
<i>INSIDE</i>	0.057 (.405)
<i>TIME</i>	0.457 (.001)***
Observations	86
Likelihood Ratio	50.71
P-Value	.0001

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**Table 8**  
**Abnormal Returns Relating to Second-Stage Offers**

Abnormal returns are estimated using the market model over a period beginning 120 days prior to the event and ending the day prior to the event. The market is proxied by the CRSP value-weighted index.

<b>Part A: Abnormal Returns at the announcement of the second-stage offer</b>			
	<b>Number of Firms</b>	<b>CAR</b>	<b>t-value</b>
Two-day CAR(0,1)	30	12.12%	26.77 ***
One-day CAR(0)	30	7.89%	22.93 ***
<b>Part B: Abnormal Returns at the offer date for subscribers – measured from the offer price</b>			
	<b>Number of Firms</b>	<b>CAR</b>	<b>t-value</b>
Two-day CAR(0,1)	30	10.09%	21.23 ***
One-day CAR(0)	30	9.50%	28.49 ***
<b>Part C: Abnormal Returns at the offer date for non-subscribers – measured from the previous day’s closing price</b>			
	<b>Number of Firms</b>	<b>CAR</b>	<b>t-value</b>
Two-day CAR(0,1)	30	-1.11%	-1.62
One-day CAR(0)	30	-1.70%	3.82 ***

\*, \*\*, and \*\*\* denote significance at the .1, .05, and .01 levels respectively for two-tailed tests.