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The consequences of unbundling managers' voting rights and equity claims

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Abstract

Managers typically increase their voting power following the creation of two classes of common stock and the adoption of an employee stock ownership plan. These changes can worsen managers' incentives and lead to a decline in performance. Alternatively, two classes of stock and ESOPs can allow managers to adopt value-maximizing policies that would not be possible in the face of takeover pressure. We find that these events are followed by below normal operating income. However, we find no reliable evidence that the increase in managers' voting power and the resulting divergence between managers' voting power and ownership of equity claims is related to subsequent operating performance.

Key words: Corporate governance; Voting rights; Two classes of stock; ESOPs

JEL Classification: G32; G34

1. Introduction

Typically the voting rights and equity claims of publicly-traded companies are paired so that common stockholders' ability to influence the results of

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corporate elections is directly related to their personal financial stake in the firm. In recent years, however, many publicly traded companies have broken the close link between security ownership and control of votes. Managers of these firms have increased their control over votes without raising their ownership of equity claims, giving them greater influence over the outcome of corporate elections without bearing commensurately greater economic consequences of their actions.

We study two methods that have been used to separate managers' vote and share ownership. The first is to create a second class of common stock with limited voting rights, which enables managers to concentrate their ownership in the shares with greater voting power. A second method is to create an employee stock ownership plan, or ESOP. An ESOP creates a substantial block of common stock that typically will be voted according to the wishes of management.

We analyze 66 publicly-traded firms that created a second class of common and 52 firms that adopted an ESOP in the period 1976 through 1987. Before the events managers of dual class firms have high ownership stakes and managers of ESOP firms have low ownership stakes relative to size- and industry-matched comparison firms. We also find that adoptions of ESOPs more often than changes to dual classes are preceded by events that raise the prospect of a bid for control. Following both changes to two classes and adoptions of ESOPs we find a substantial divergence between managers' control of votes and ownership of equity claims. However, the median dual class firm's managers control a majority of votes, while the median ESOP firm's managers control considerably less than a majority. Thus, both dual classes and ESOPs enhance managers' voting power without a comparable increase in equity stakes, but they also display important differences.

We focus on firms' performance, as measured by operating income. Performance will suffer if increased voting power and reduced equity stakes enhance managers' incentive to trade off performance for personal benefit. Alternatively, performance will improve if increased voting power allows managers to implement value-increasing policies that otherwise could not be sustained because of the threat of a takeover. [1] We relate abnormal perfor-

[1] Various arguments for why takeover defenses can benefit shareholders have been advanced. DeAngelo and DeAngelo (1985) argue that an effective defense against changes in control can enhance managers' incentives to make firm specific investments in their human capital that add to firm value. Stein (1988) identifies conditions under which an effective takeover defense can prevent managers who face a takeover threat from taking actions that lower firm value. Knoeber (1986) shows that an effective takeover defense can lead to compensation contracts that more closely align the interests of managers and other stockholders. Takeover barriers can also improve a firm's bargaining power in the event of a takeover offer, as argued by DeAngelo and Rice (1983).

nance to managers' ownership positions. The unbundling of voting rights and equity claims that characterizes our sample allows us to study the separate, and possibly different, relations between managers' control of votes and operating performance and between managers' ownership of equity claims and operating performance.

Following changes to two classes and adoptions of ESOPs we find evidence that scaled operating income adjusted for the performance of comparison firms is negative and that year to year changes in scaled operating income are also negative. The decrease in performance is either a consequence of a change in managers' incentives or the unbundling is timed to precede an anticipated decline in performance.

The nature of the decline in performance depends on managers' ownership stake at the time of the creation of dual classes or the adoption of an ESOP. High ownership firms show above normal performance before and normal performance after the change to two classes or adoption of an ESOP, while low ownership firms show normal performance before and below normal performance after the event. However, performance is unrelated to the increase in managers' voting power or to the divergence between managers' voting power and equity stakes.

The increase in managers' voting power associated with dual classes of common stock and ESOPs suggests that these changes are takeover defenses. Therefore, we examine whether dual classes and ESOPs lead to a below normal incidence of changes in control. We also look for evidence of entrenchment by comparing management turnover before and after the unbundling of equity claims and voting rights. Following the changes, the incidence of control changes is unusually low for dual class firms, but not for ESOP firms. However, the frequency of management turnover does not fall from before to after the events. Dual classes and ESOPs do not appear to offer additional job security for managers.

If the increase in voting power allows managers to make better long-range decisions, the results of dual class and ESOP firms' investment may not be observed in short-term measures of operating performance. To search for evidence of these benefits we examine whether dual class and ESOP firms have unusually high levels of research and development expenditures or increase these expenditures following the unbundling of managers' votes and equity claims. No unusual pattern in research and development expenditures is found.

2. Description and examples of dual classes and ESOPS

A change to two classes requires stockholder approval. The voting rights of the two share classes are differentiated by the number of votes per share,

by the slate of directors voted upon, or by both of these characteristics. A second class of common stock is generally created by exchanging common shares for the new superior voting shares or by issuing new shares as a stock dividend. If the firm makes an exchange offer, the distribution of share ownership can change at the time of the creation of the second class of stock. If the firm distributes shares of the new class of stock as a dividend, the change does not immediately affect the distribution of share ownership within the firm. But over time as the firm issues more limited voting stock and managers adjust their personal holdings, managers can increase their ownership of votes and/or decrease their ownership of equity claims. Partch (1987) argues that the primary motive for creating two classes of stock is to insulate the firm from changes in control that are unwanted by the firm's managers or principal stockholders.

An ESOP, a form of pension plan, typically receives contributions of employer's stock or receives financing to buy shares. The plans are usually instituted without formal stockholder approval. [2] Shares owned by the plan are allocated to employees over time. Shares in the ESOP have full voting rights and employees control the votes of shares allocated to them. The plan trustee, chosen by the company's managers, votes the unallocated shares. We assume, as do Chang and Mayers (1992), that the voting power of officers and directors effectively increases by the amount of unallocated shares owned by the plan. [3] This assumption is also consistent with the conclusion of Scholes and Wolfson (1990) and Chaplinsky and Niehaus (1990) that a primary motive for the adoption of ESOPs is to insulate managers from unwanted changes in control. [4] As is the case with dual classes, the increase in voting power is accomplished without any additional personal investment by officers and directors.

Below we briefly describe two dual class arrangements and one ESOP in our sample. These cases illustrate how the creation of a second class of stock or an ESOP facilitates the unbundling of voting rights and equity claims. The

[2] When an ESOP receives more than 18.5% of the company's stock the New York Stock Exchange requires shareholder approval of the plan. We are unaware of any other circumstances when shareholder approval of a plan is required.

[3] Based on their sample of ESOPs that come mostly from 1988 and 1989, Chaplinsky and Niehaus (1993) maintain that in most cases the trustee is required to vote unallocated shares in the same way that allocated shares are voted by employees. However, as pointed out by Chang and Mayers (1992), employees presumably have interests close to those of the firm's managers. Chaplinsky and Niehaus make a similar point by arguing that the employment relationship leads employees to have higher reservation prices than other stockholders.

[4] Sokobin (1993) argues that special tax provisions were an important motivation for ESOP adoptions in the late 1970s and early 1980s. We have not attempted to identify any ESOPs motivated solely by tax effects.

dramatic nature of the changes in ownership emphasizes the potential for important changes in managers' incentives following these events.

2.1. Olsten Corporation

The company is a provider of temporary office services with shares listed on the American Stock Exchange. In March 1987, shareholders were given the opportunity to exchange their common shares for new class B shares during a 20-day period. The class B shares elect 75% of the firm's directors, are not publicly traded, but can be converted to common stock at any time. Transfers or sales of class B shares are restricted.

The stated rationale for the proposal was to provide continuity of management, and to allow the firm to raise equity capital without diluting the voting power of management and making the company vulnerable to a hostile takeover. At the time of the proposal, William Olsten, the company's founder, and his family controlled approximately 40% of the firm's common stock.

The exchange offer immediately gave the Olsten family complete control of the class B shares, and thus the right to elect 75% of the board of directors. The 1987 proxy statement revealed that if the Olsten family were the only participants in the exchange offer, the family would own approximately 87% of the combined voting power of all outstanding stock. By April 1988 the Olsten family owned 90% of the class B shares and 38% of all outstanding shares. Two years later, in 1990, the Olstens owned 94% of the class B shares and approximately 40% of all outstanding shares.

2.2. Methode Electronics

The company, a manufacturer of electronic signal devices, was founded in 1946. In June 1982, the board of directors proposed to rename existing shares as class B shares and to issue a stock dividend of one new class A share for each class B share. The class B shares separately elect 75% of the board of directors and are convertible into class A shares. Both classes trade in the over the counter market.

At the time of the proposal William McGinley, president of the company, owned 54% of the outstanding shares. One year after the change to two share classes, McGinley owned 53% of the class B shares and owned 31% of all the outstanding shares. During the following four years, the company made three public offerings of class A shares in which McGinley sold large blocks of his stock. In 1988, McGinley owned 60% of the class B shares and only 5.9% of the two classes combined. Unlike Olsten Corporation's exchange offer that quickly changed the firm's distribution of share ownership, Methode Electronics' stock dividend combined with subsequent equity offer-

ings facilitated a reduction over time in its President's share ownership without a decrease in his voting control.

2.3. Harper and Row Publishers

The company is a diversified book publisher whose shares trade over the counter. In 1981, the directors of Harper and Row sought an alternative to the planned sale of a 31% stake held by the Minneapolis Star and Tribune Company. The board of Harper and Row proposed to buy the block and place a 30% stake in a newly formed employee stock ownership plan. The remaining shares would go to the company's profit sharing plan. The repurchase and formation of the ESOP were approved by a vote of stockholders.

The trustee of the ESOP votes unvested shares at the direction of the board of directors. The board of directors collectively controlled almost 10% of outstanding shares prior to the creation of the ESOP. Thus, the creation of the ESOP immediately augmented the directors' voting power to approximately 40% of outstanding votes. Three years later officers and directors had reduced their ownership stake to 5% and the ESOP and profit sharing plans owned 33% of outstanding shares. However, 14% of those shares were vested, and therefore were voted according to the directions of individual plan participants. The 1984 proxy statement also revealed that as part of a settlement of a lawsuit the ESOP had been modified to restrict control over the voting power of unallocated shares to directors who are not and have not been employees of the firm.

3. Related empirical research

Previous studies have focused primarily on the stock price effects of the adoptions of dual classes or an ESOP. Partch (1987) and Cornett and Vetsuypens (1989) do not find a significant stock price effect of a change to two classes of common stock, while Jarrell and Poulsen (1988) report a negative effect. Chang and Mayers (1992) find that the adoption of an employee stock ownership plan is met with a positive stock price reaction on average, but the effect is negative if managers' initial shareholdings are sufficiently high. Chaplinsky and Niehaus (1993) find that ESOPs created by firms experiencing a takeover threat on average do not generate negative stock price effects, although they report a negative stock price reaction when the ESOP increases employee plus managerial ownership from below 10% to above 15% of outstanding shares. Gordon and Pound (1990) find negative stock price reactions when the ESOP plans are designed to weaken outsiders' voting power. Thus, the stock price evidence is mixed.

We are aware of three studies that examine operating performance. Lehn,

Netter, and Poulsen (1990) report that the percentage changes in operating income for dual class firms exceed those of comparison firms over the first three years following the change. We examine additional measures of performance and relate our measures to ownership characteristics of dual class firms. Livingston and Henry (1989) report that ESOP firms are less profitable following the adoption of an ESOP than are comparison firms. In contrast, a study by the U.S. Government Accounting Office (1987) finds that following the adoption of an ESOP, firms are no less productive or profitable than comparison firms. The GAO study examines performance only prior to 1980. Our study provides evidence on more recent ESOPs.

4. Description of the sample and comparison firms

4.1. Characteristics of firms at the time of adoption of two classes or an ESOP

We identified 108 publicly traded firms that created a second class of common stock between 1976 and 1987. Firms in this group come from Partch (1987), from Jarrell and Poulsen (1988), and from our search of annual issues of Standard and Poor's *Security Owners' Stock Guide*. The sample we analyze is limited to 66 firms that satisfy two criteria. First, the sample firm is included in the Compustat file. Second, one or more comparison firms, matched by size and industry, can be identified for the sample firm.

We analyze a subsample of the 276 ESOPs that were analyzed in Chang and Mayers (1992). [5] Chang and Mayers identified their sample from information provided by the National Center for Employee Ownership and from news stories identified through the Dow Jones News Retrieval Service. A majority of the ESOPs in their sample come from 1988 or 1989. Our sample is 52 ESOPs adopted in the period 1976 through 1987 where the ESOP firm is included in the COMPUSTAT file and can be matched with one or more comparison firms. We also excluded five firms that reportedly adopted their ESOPs as part of negotiations to obtain wage concessions from employees. Our concern is that these five ESOP adoptions were motivated by or related to poor operating performance.

Most sample firms created a second class of common stock or adopted an ESOP in the latter part of the sample period. Forty-seven of the 66 firms adopted a second class in the last four years we study, 1984–1987, and 36 of 52 firms adopted an ESOP in this period.

Several methods were used to change to two classes of shares. Forty firms issued the new shares as a stock dividend, as described above for Methode

[5] We are grateful to Saeyoung Chang and Dave Mayers for providing us their ESOP data.

Electronics. Twenty firms made exchange offers similar to that of Olsten Corporation. Six firms used various other methods. The shares issued to the ESOPs were new shares in 22 cases and were recently repurchased shares in the other 30 cases. The repurchases represent a mix of 17 open market repurchases, three repurchases by a tender offer, and 10 repurchases from a single holder, as described for Harper and Row.

In order to establish standards of normal operating performance, for each sample firm we selected a set of comparison firms matched by industry and by market value of equity from the Compustat files. Sample firms were excluded from this set, as were firms domiciled outside of the United States. The comparison firms have the same two-digit SIC code as the corresponding sample firm, and have a market value of equity within 25% of the market value of equity of the sample firm, measured at the time of the change to dual classes or the adoption of an ESOP. The median number of comparison firms per sample firm is eight for the dual class sample and is four for the ESOP sample. The range is from one to 27 in both samples.

In Table 1 we describe several attributes of the sample firms and comparison firms just prior to the change to two classes of common stock or the adoption of an ESOP. For the sample firms we report the 25th percentile, median and 75th percentile values. For the comparison firms we first compute the average value for the comparison firms for each sample firm. We report the 25th percentile, median and 75th percentile values of these averages. All statistics, except the ownership data, were computed using Compustat data. We collected the ownership data from annual meeting proxy statements.

Sample firms appear to be well matched to their comparison firms. Based on the Mann–Whitney test, the sample firms display no unusual growth in assets (row 4) or sales (row 5) prior to the change in voting arrangements. There are also no important differences in the scaled amounts of research and development expenditures (row 7) and capital expenditures (row 8), which suggests no fundamental difference in the nature of sample and comparison firms' assets. The sample firms are more levered than the comparison firms (row 3). Higher financial leverage suggests that these firms have favored debt financing over equity financing, possibly to avoid eroding managers' voting power.

The most striking differences are the levels of managerial ownership, shown in the last row of Table 1. Relative to their comparison firms, officers and directors of firms that convert to two share classes control an unusually high percentage of shares, 41% compared to 16%, and the officers and directors of firms that adopt an ESOP control an unusually low percentage of shares, 8% compared to 25%. For both the dual class and ESOP samples the Mann–Whitney test statistic is significant at the 0.01 level. It is also noteworthy that the median market value of equity of the dual class firms is greater

than for the ESOP firms even though the median stake controlled by officers and directors is substantially greater for the firms that change to two classes. For firms in general, Demsetz and Lehn (1985) and Mikkelson and Partch

Table 1
Descriptive measures for the year prior to the creation of a second class of common stock or adoption of an employee stock ownership plan in the period 1976–1987. The first measure is a median value. The numbers in parentheses are the 25th and 75th percentile values. Summary statistics in rows 1 through 8 are computed using data from Compustat tapes. Ownership data in row 9 are computed from information in company proxy statements. Each firm is matched with a set of comparison firms that are listed on the Compustat tape, have the same two-digit SIC code as the sample firms, and have market value of equity within 25% of the market value of equity of the sample firm. For each sample firm we compute the average value for its set of comparison firms and report the median, 25th percentile and 75th percentile values of these averages for the comparison firms. Year 0 is the year of the change to two classes or adoption of an ESOP. Officers' and directors' ownership of common stock reflects the percentage of outstanding shares they and their family members own or control, as reported in the company's proxy statements

Firm characteristic	Dual class firms n = 66		ESOP firms n = 52	
	Sample firms	Comparison firms	Sample firms	Comparison firms
1. Total assets (millions)	\$95.9 (\$49.5, \$353.4)	\$110.6 (\$52.8, \$211.3)	\$155.8 (\$60.8, \$652.1)	\$109.9 (\$51.1, \$311.6)
2. Market value of equity (millions)	\$90.1 (\$39.8, \$193.6)	\$86.2 (\$33.2, \$201.1)	\$63.5 (\$33.3, \$272.2)	\$60.6 (\$29.6, \$272.2)
3. Book value of total liabilities/total assets	0.60 (0.44, 0.76)	0.51 (0.44, 0.61)	0.54 (0.46, 0.64)	0.48 (0.41, 0.60)
4. Percentage change in total assets from year −4 to year −1	40.6% (11.2%, 88.4%)	45.5% (31.5%, 60.5%)	33.3% (14.5%, 77.6%)	43.2% (27.0%, 74.7%)
5. Percentage change in sales from year −4 to year −1	29.7% (11.6%, 79.7%)	39.3% (20.4%, 54.1%)	38.3% (7.3%, 67.5%)	39.4% (20.6%, 79.2%)
6. Total dividends/ shares outstanding	\$0.20 (\$0.00, \$0.41)	\$0.05 (\$0.00, \$0.50)	\$0.39 (\$0.17, \$0.78)	\$0.22 (\$0.0, \$0.57)
7. R and D expenses/ sales	0.02 (0.00, 0.04)	0.02 (0.00, 0.04)	0.01 (0.00, 0.02)	0.02 (0.01, 0.05)
8. Capital expenditures/sales	0.04 (0.02, 0.07)	0.04 (0.03, 0.06)	0.04 (0.02, 0.06)	0.05 (0.03, 0.07)
9. Percentage of shares controlled by officers and directors	41.0% (31.8%, 55.7%)	16.4% (6.1%, 33.0%)	8.3% (2.4%, 26.6%)	25.3% (7.6%, 46.3%)

(1989) have found a negative relation between firm size and management ownership.

The differences in managers' ownership of common stock prior to the changes can shed light on why some firms create a second class of common stock, and others create an ESOP. On average, managers of dual class firms have effective voting control prior to the adoption of the second class. Managers' objective presumably is not an immediate increase in their voting power. The creation of a second class of stock allows managers to avoid erosion of voting control over time as the firm issues more equity or as managers sell some of their holdings. [6] These changes provide a preemptory defense against potential future takeover attempts, rather than a response to an immediate threat. Consistent with this interpretation only 4 (or 6%) of the 66 changes to two classes experienced a potential or actual takeover offer or an outsider's accumulation of a 5% or greater voting stake in the preceding 12 months, according to reports in *The Wall Street Journal*.

ESOPs, in contrast, are more attractive to managers with a relatively low ownership stake who desire an immediate increase in their voting power, especially in response to an existing or impending takeover threat. Evidence consistent with this view is that in 12 (23%) of 52 cases the adoption of an ESOP was preceded in the prior 12 months by a publicly rumored or reported takeover offer or by an outsider's accumulation of a 5% or greater voting stake. The proportions of ESOP and dual class firms with prior takeover activity differ at the 0.02 level according to a χ^2 test (Siegel and Castellan (1988), page 116). It is also noteworthy that the 12 ESOPs with prior takeover activity are evenly distributed across the years 1980 through 1987.

4.2. Subsequent changes in ownership

Our primary objective is to analyze the consequences of actions that allow managers to unbundle their control of votes and their ownership of equity claims. Therefore, we first examine the extent of unbundling of managers' vote and share ownership following the creation of two classes or the adoption of an ESOP.

In Table 2 we report managers' ownership of votes and their ownership of shares just before and three years after the creation of the second class of common or the adoption of an ESOP. We also investigate whether changes in ownership by outside blockholders or in the composition of the board of directors accompany managers' unbundling of votes and shares. We were

[6] Partch (1987) reports that an unusually large proprtion of her sample firms sold equity in the two years following the creation of a new class of common stock.

able to obtain proxy statements for both the year of the change (year 0) and three years after (year +3) for 62 of the 66 dual class firms and for 45 of the 52 ESOP firms.

Panel A reports the ownership of shares as well as the control of votes by officers and directors. For firms with two classes, officers' and directors' ownership of votes in year +3 is defined as the percentage of the superior voting class they own or control, if the superior voting class separately elects a majority of directors. If both classes vote together, officers' and directors' ownership of votes is defined to be their combined voting power in the two classes. In either case, we include votes owned directly by officers and directors and their family members, as well as votes controlled by trusts for their benefit and corporations or foundations they control. Following the arguments of Chang and Mayers (1992) and others, we treat the votes of shares in an ESOP as management controlled. Our calculation of votes controlled by managers of ESOPs in year +3 combines shares owned by managers and the unallocated shares owned by the ESOP.

Consistent with Table 1, in the year of creation of the second class the median percentage of shares controlled by officers and directors is 41%. This differs slightly from the median percentage of votes controlled, 40.9%, because of the existence of voting preferred stock. By three years after the change, officers' and directors' median ownership of shares has fallen to 38%, and their median control of votes has risen to 64%. For ESOP firms the percentage of shares controlled falls from 8% in year 0 to 6% in year +3. The percentage of votes controlled increases to 22%. For both samples the predominant change over time is an increase in managers' voting power. However, an important difference is that the median control of votes eventually exceeds 50% for dual class firms, but remains well below 50% for ESOP firms.

The changes in managers' ownership are consistent with the stated or ostensible reason for dual classes or an ESOP. These changes allow managers to increase their influence over the election of directors and the outcomes of other elections while not increasing, and perhaps even decreasing, their equity ownership in the firm. Potentially these two types of actions significantly weaken the ability of non-management stockholders to use voting rights to control agency problems with their managers.

Alternative ways to monitor managers may arise following a change to two classes or the adoption of an ESOP. For example, an increase in the stakes held by outside blockholders or an increase in the number of board members unaffiliated with management would be consistent with this view. Panel B provides information on the ownership of outside blockholders, defined as holders of 5% or more of a class of common stock who neither sit on the board nor to our knowledge are related to an officer or director of the firm.

Blockholders are roughly evenly distributed among individuals, firms,

financial institutions, retirement plans, and investment companies. Prior to a change to two classes, 25 of the 62 firms with ownership data had at least one outside blockholder. Three years after the change, 29 firms had at least one blockholder. The median percentage of votes controlled by blockholders in these firms changed from 11% to 12% over three years. The number of ESOP firms with a blockholder increases from 28 to 32 from year 0 to year

Table 2
Summary of ownership by officers and directors, ownership by outside blockholders, and board size and composition for firms that created a second class of common stock or an employee stock ownership plan in the period 1976–1987. Year 0 is the year of the change to two classes or creation of an ESOP. Officers' and directors' ownership of common stock reflects the percentage of outstanding shares they and their family members own or control, as reported in the company's proxy statements. Blockholders hold more than 5% of a class of common stock, do not sit on the board of directors, and to our knowledge are unrelated to an officer or director of the company. Information concerning blockholders' ownership is reported in the company's proxy statements. Inside directors are officers of the company. Outside directors have no known personal or professional affiliation with the company. Other directors are related to an officer or the company, have served as on officer in the past, or have a business relationship with the company

Firm characteristic	Dual class fims n = 62		ESOP firms n = 45	
	Year 0	Year +3	Year 0	Year +3
A. Shares owned and votes controlled by officers and directors:				
Median Percentage of Shares Controlled by Officers and Directors (25th, 75th Percentile)	41.0% (28.9%, 55.7%)	37.5% (22.6%, 50.8%)	9.5% (2.7%, 26.6%)	5.8% (2.4%, 21.5%)
Median Percentage of Votes Controlled by Officers and Directors (25th, 75th Percentile)	40.9% (28.9%, 54.5%)	64.1% (43.4%, 77.8%)	9.5% (2.7%, 26.6%)	23.5% (13.9%, 34.9%)
B. Votes Controlled by Outside Blockholders:				
Number of firms with a blockholder	25	29	26	29
Median percentage of votes controlled by blockholders	11.1%	12.3%	9.9%	11.4%
C. Board size and composition:				
Median number of directors	8	9	9	10
Median proportion of inside directors	0.43	0.43	0.33	0.33
Median proportion of outside directors	0.39	0.38	0.56	0.60
Median proportion of other directors	0.17	0.20	0.08	0.09

+3. The median ownership stake of blockholders in these firms increases from 10% to 13%. For both samples these changes are probably inconsequential.

Another alternative way to monitor managers is to increase the proportion of outside members of the board of directors. However, this is somewhat unlikely for the dual class firms, given the voting control exercised by managers. In panel C we describe the size and composition of the board. Not surprisingly, we find that the compositions of the boards of directors have not changed over time to provide additional monitoring of managers by outside directors. [7]

5. Performance around the creation of two classes or an ESOP

5.1. Measures of performance

We analyze performance in the nine-year period that is centered on the year of creation of two classes or the adoption of an employee stock ownership plan. Our first performance measure is operating income before depreciation, item A13 in the Compustat file. Operating income before depreciation equals net sales minus cost of goods sold and selling, general and administrative expenses. To obtain an estimate of operating profitability, income is measured before tax and interest payments. We divide operating income before depreciation by the book value of the year-end total assets to account for the possible effects of differences in firm size, or asset base.

The second measure we analyze is the ratio of market value of assets to book value of assets. Market value is estimated as the sum of the book value of outstanding liabilities, item A181 in the Compustat file, the carrying value of preferred stock, item 130, and the product of share price, item A24, and number of shares outstanding, item A25. We use the ratio of market to book

[7] Although we do not have information on the board size and composition for a random sample of firms that did not create a second class of common stock or adopt an ESOP, some comparisons can be made. Gilson (1990) reports board size and composition for financially distressed firms, and Byrd and Hickman (1992) report similiar measures for bidders in takeover contests. The median board size in Gilson's sample in the year before the onset of financial distress is 8.0. In the same year, he reports a median proportion of inside directors of 0.40, a median proportion of outside directors of 0.50, and a median proportion of other directors of 0.09. The firms in Byrd and Hickman's study of bidders are much larger, which may account for their higher median board size of 12. They report that the median proportion of inside directors is 0.36, the median proportion of outside directors is 0.39, and the median proportion of other directors is 0.24. Firms that have two classes of common stock tend to have somewhat lower proportions of outsiders on their boards and firms with an ESOP have higher proportions than do firms in the two studies cited.

value as an indicator of value that has been added to a firm's assets. A shortcoming of this measure is that the value added can reflect the nature of the firm's assets, such as investment opportunities that have been acquired or developed, rather than the valuation consequences of superior or inferior management of assets.

We report measures adjusted for the performance of comparison firms. We adjust each sample firm's performance measure, either scaled operating income or the ratio of market value to book value of assets, by subtracting the median performance measure for its matched set of comparison firms. The null hypothesis is that the median performance of the sample firms adjusted for the performance of comparison firms equals zero.

Another measure we report is year to year changes in operating income divided by book value of assets. This is an alternative measure of annual performance that is adjusted for the prior year's performance instead of comparison firms' performance. This adjustment is based on an assumption that the expected performance for a given year equals the previous year's performance.

We also examine stock returns for four 250-day periods that precede and four 250-day periods that follow the first published report of a change to two classes or an adoption of an ESOP. Of course, following the announcement an efficient stock market quickly impounds into share price the expected consequences of dual classes or an ESOP. We examine stock returns over long intervals because subsequent experience with dual classes and ESOPs may have deviated substantially and systematically from what was expected at the time of the announcements.

3.2. *Performance of dual class and ESOP firms*

We found that the proportions of managerial ownership for dual class firms and ESOP firms differ and that different motivations may underlie dual classes and ESOPs. Therefore, we separately examine performance measures for the dual class and ESOP samples. Table 3 presents measures of operating income for various intervals both before and after the change, where year 0 is the year of the adoption of two classes or an ESOP. Operating income as a percentage of assets for multiple years is computed by first averaging each firm's annual percentages. For example, a firm's performance over years 1 through 3 is based on its average percentage for years 1, 2 and 3, which is then adjusted for the median of comparison firms' average percentages.

For the entire sample of 66 dual class firms, there is no unusual operating performance following the change. However, in the year before (year -1) and the year of the adoption of two classes (year 0), the median adjusted operating performance measures are positive and statistically significant. In contrast, the sample of ESOP firms displays poor performance relative to

comparison firms in most intervals following the year of adoption (year 0). Based on this measure ESOP firms, more so than dual class firms, display poor performance.

In Table 3 we also report annual changes in operating cash flow divided by total assets. Column 6 shows significant changes in scaled operating cash flows over the four years following the switch to two classes, but no unusual performance before year 0. For ESOP firms there is a significant change only from year 0 to year 1. [8]

Our evidence for dual class firms is quite different than the findings of Lehn, Netter and Poulsen (1990). They report negative percentage changes in operating income divided by sales, and positive industry-adjusted percentage changes. We find no evidence of positive performance measures. However, Lehn, Netter and Poulsen examine percentage changes in the ratio of operating income to sales rather than simple differences over time. Therefore, as in Lehn, Netter and Poulsen, we computed percentage changes in operating income divided by sales for the intervals of years -1 to 1, -1 to 2 and -1 to 3. We find a negative industry-adjusted median percentage change in all three intervals and insignificant test statistics. [9]

Ratios of market value of assets to book value, not reported in a table, show no unusual valuations of the sample firms. Unadjusted median ratios are always greater than one. For dual class firms, adjusted ratios are insignificant for all years before and after the event. Prior to the adoption of an ESOP, adjusted market to book value ratios are significantly lower than the ratios of their comparison firms, but no significant difference follows year 0.

Table 4 presents stock returns for one thousand trading days (approximately four calendar years) before and one thousand trading days after the first report of a change to dual classes or the adoption of an ESOP. Median unadjusted stock returns for 250-day intervals are generally positive before and after the announcements. Returns are also adjusted for the median stock return of firms in the same four digit SIC category and with market value of equity within 25% of the market value of sample firms. Prior to and following the announcements most median adjusted returns are insignificant. The

[8] We separately examined changes in operating income, the numerator, and total assets, the denominator and found that both increase. The median declines in operating income divided by assets reflect a relatively large increase in assets rather than a decrease in operating income.

[9] Our sample and Lehn, Netter and Poulsen's are drawn from similar time periods, and the analyses of Compustat data in the two papers involve samples of similar size. Thus, we suspect that the discrepancy between our results and those of Lehn, Netter and Poulsen are due to different methods of industry adjustment. Their adjustment includes all firms in the same four, three or two digit SIC classification of industry, regardless of size. Our comparison firms are drawn from a broader definition of industry group (two digit SIC code), but are restricted to be within 25% of the market value of equity of the same firms.

Table 3
Levels and changes in operating cash flow as a percentage of total assets around the time firms created two classes of common stock or an ESOP in the period 1976–1987. Median value and proportion of positive values (in parentheses) for (1) operating cash flow divided by total assets both unadjusted and adjusted for a median measure for size- and industry-matched comparison firms and for (2) changes over time in operating cash flow divided by assets. Operating cash flow equals net sales minus cost of goods sold and selling, general and administrative expenses. The adjusted value equals the difference between the percentage measure of performance for the sample firm and the median percentage measure of performance for all Compustat listed companies with the same two-digit SIC code and with a market value within 25% of the value of the sample firm. The changes over time begin with the end of the year that precedes the first year in the interval. Year 0 is the year of adoption of two classes or an ESOP. In year 0 the samples are 66 firms that created two classes and 52 firms that adopted an ESOP

	Dual class firms		ESOP firms		Dual class firms	ESOP firms
1. Interval of years around the event [a]	2. Level unadjusted	3. Level adjusted [b]	4. Level unadjusted	5. Level adjusted [b]	6. Changes over time	7. Changes over time
−4 through −1	15.15%	1.11% (0.61)	14.73%	−0.74% (0.42)	not computed	not computed
−3 through −1	15.35	0.75 (0.58)	14.03	−0.71 (0.41)	1.07% (0.55)	−1.90% (0.39)
−2 through −1	14.77	1.44 (0.62)	14.01	−0.68 (0.37)	0.63 (0.54)	−0.93 (0.46)
−1	15.16	3.61 (0.58) [b]	13.13	−0.83 (0.45)	0.31 (0.53)	−0.56 (0.40)
0	13.60	1.55 (0.52) [a]	12.90	−0.34 (0.43)	−0.34 (0.41)	0.41 (0.54)
+1	12.88	−0.80 (0.42)	10.59	−2.29 (0.38) [b]	−0.60 (0.40) [a]	−1.06 (0.43) [c]
1 through 2	12.22	−0.39 (0.39)	11.10	−3.87 (0.26) [a]	−0.79 (0.43) [c]	−0.40 (0.39)
1 through 3	12.34	−0.60 (0.43)	11.40	−2.94 (0.36) [c]	−1.67 (0.43) [c]	−0.32 (0.46)
1 through 4	12.84	−1.02 (0.40)	11.82	−0.25 (0.48)	−2.70 (0.37) [b]	−0.28 (0.46)

[a,b,c] Wilcoxon signed ranks statistic is significant at the 1%, 5%, 10% level.

exception is a positive adjusted stock returns during the first 250 days following ESOP announcements.

In summary, for neither the dual class nor ESOP sample is there evidence of improved operating income following year 0. Depending on the particular performance measure there is either negative or no abnormal operating performance following the change to two classes or the adoption of an ESOP. At this stage the evidence suggests a decline, if any change, in operating performance. The stock return evidence does not clearly point to either positive or negative performance.

6. The relation between performance and managers' ownership

6.1. Ownership of managers at the time of the change

The amount of common stock owned by officers and directors at the time of the change to two classes or the adoption of an ESOP varies considerably

within the samples. We investigate whether there is a relation between performance following year 0 and officers' and directors' holdings of shares at the time of the change. The argument that dual class or ESOP adoptions insulate managers from the discipline provided by the exercise of shareholders' voting rights suggests that performance will deteriorate most when managers' ownership stake is low.

We divide each of our samples into three groups defined by the proportion of shares held by officers and directors in the year of the change to two classes of stock or the adoption of an ESOP. Table 5 reports measures of operating cash flow divided by book value of assets adjusted for the performance of matched comparison firms in intervals surrounding the year of the change, year 0. Only the subsamples of firms whose managers control 25% or fewer shares display abnormal performance following year 0. In most intervals the median performance measure of both dual class and ESOP firms is negative. In contrast, when officers' and directors' stake exceeds 50% both dual class and ESOP firms generally display positive median performance

Table 4
Median stock returns preceding and following the announcement of plans to create a second class of stock or an ESOP in the period 1976–1987. An adjusted stock return is the difference between the sample firm's stock return and the median stock return for its set of comparison firms. Comparison firms are firms on the Center for Research in Security Prices daily returns file that have the same four-digit SIC code and whose market value is within 25% of the market value of the sample firm. Day 0 is the first report of plans to create a second class of common stock or an ESOP. When no report is found for dual class firms we use the earlier of the mailing date of the proxy materials and the date of the board of directors meeting where the decision to change two classes was made. For ESOP firms we use the announcement dates analyzed in Chang and Mayers (1992)

Interval of trading days	Dual class firms		ESOP firms	
	Unadjusted return	Adjusted return	Unadjusted return	Adjusted return
Pre-event returns:				
−1000 to −751	41.3% [a]	−4.6%	−4.7%	−8.4%
−750 to −501	15.1 [a]	7.5	22.0 [a]	−10.2
−500 to −251	20.9 [a]	0.8	17.1 [a]	−3.2
−250 to −2	35.0 [a]	24.2 [a]	10.4 [c]	−3.8
Announcement returns:				
−1 to 0	0.2 [c]	0.6 [c]	1.1 [b]	1.7 [b]
Post-event returns:				
1 to 250	1.6	−1.8	22.6 [a]	9.6 [c]
251 to 500	8.8	3.9	15.2 [b]	3.1
501 to 750	16.4 [a]	3.2	−2.5	−4.5
751 to 1000	2.0	4.5	4.2	−9.7

[a,b,c] Wilcoxon signed ranks statistic is significant at the 1%, 5%, 10% level.

Table 5
Adjusted operating cash flow as a percentage of total assets around the time firms created two classes of common stock or an ESOP in the period 1976–1987. Firms are grouped by the proportion of shares owned by officers and directors (α) at the time of the change to two classes or an ESOP. Median value and proportion of positive values (in parentheses) of operating cash flow as a percentage of total assets adjusted for a median percentage measure for size- and industry-matched comparison firms. Operating cash flow equals net sales minus cost of goods sold and selling, general and administrative expenses. The year 0 sample sizes are given at the top of each column, where year 0 is the year of the change to two classes or an ESOP. Officers' and directors' ownership of common stock reflects the percentage of outstanding shares they and their family members own or control, as reported in the company's proxy statements.

Interval of years	Dual class firms			ESOP firms		
	$\alpha \leq 0.25$ n = 11	$0.25 < \alpha \leq 0.50$ n = 31	$\alpha > 0.50$ n = 24	$\alpha \leq 0.25$ n = 37	$0.25 < \alpha \leq 0.50$ n = 11	$\alpha > 0.50$ n = 4
−4 through −1	−5.02% (0.20) [c]	1.69% (0.64)	3.48% (0.78) [b]	−0.99% (0.41)	−0.68% (0.50)	−0.32% (0.33)
−3 thorugh −1	−3.28 (0.20)	2.28 (0.61)	3.16 (0.74) [c]	−0.79 (0.42)	−0.98 (0.30)	2.29 (0.67)
−2 through −1	−1.79 (0.30)	1.39 (0.64)	2.74 (0.75) [b]	−0.63 (0.39)	−0.95 (0.20)	2.07 (0.67)
−1	−1.32 (0.27)	2.56 (0.61)	5.12 (0.71) [a]	−0.89 (0.43)	−0.91 (0.40)	4.99 (0.75)
0	0.19 (0.45)	−0.91 (0.41)	4.93 (0.67) [a]	−0.51 (0.39) [c]	−0.11 (0.45)	9.00 (0.75)
1	−3.22 (0.27) [c]	−1.59 (0.38)	0.47 (0.52)	−4.02 (0.31) [a]	−1.54 (0.45)	3.42 (1.00)
1 through 2	−2.17 (0.18) [b]	−0.83 (0.36)	1.62 (0.52)	−3.91 (0.23) [a]	−4.24 (0.33)	1.70 (0.50)
1 through 3	−1.99 (0.18) [b]	−0.51 (0.46)	0.08 (0.52)	−3.89 (0.32)	−4.02 (0.33)	3.34 (1.00)
1 through 4	−4.09 (0.11) [b]	−0.49 (0.41)	0.17 (0.56)	−1.35 (0.40)	0.34 (0.57)	4.04 (1.00)

[a,b,c] Wilcoxon signed ranks statistic is significant at the 1%, 5%, 10% level.

measures both before and after the change. But only the positive performance of dual class firms before the change is statistically significant. Of course, the power of statistical tests is quite low for the sample of four ESOP firms with ownership greater than 50%.

Performance for the subsamples of firms grouped by the ownership of officers and directors at the time of the change indicates that low ownership dual class and ESOP firms perform normally before and perform below normal after year 0 while high ownership dual class firms perform above normal before the change and perform normally after the change. No clear pattern emerges for the small sample of four ESOP firms with high ownership.

The year to year changes in scaled operating cash flow (not reported in a table) show statistically significant decreases after year 0 for the sample of high ownership dual class firms and the low ownership ESOP firms. However, no statistically significant changes are observed for the relatively small samples of low ownership dual class firms and high ownership ESOP firms. The middle groups of firms display no unusual performance before or after the changes.

From Table 5 we infer that dual class and ESOP firms undergo a change from before to after year 0. But the nature of the change depends on the size of officers' and directors' ownership stake at the time of the change. Low ownership firms appear to create two classes or adopt an ESOP prior to a period of poor performance. High ownership dual class firms appear to create two classes after a period of above normal performance that is then followed by normal performance. The common characteristic across these subsamples is that year 0 demarcates a change to lower operating cash flow.

Regression analysis shows that the changes in operating cash flow following year 0 are unrelated to the level of managers' ownership stake. For the samples of dual class and ESOP firms we regressed alternative measures of the year to year changes in operating cash flow after year 0 on managers' proportional ownership stake at the time of the change and on managers' proportional ownership stake squared. The absence of a significant relation is consistent with changes in operating cash flow from before to after year 0 that are similar across different levels of managerial ownership stakes.

6.2. Separation of managers' ownership of shares and votes

As shown earlier, the creation of two classes of stock or an ESOP leads to a divergence between the proportion of votes controlled by managers and the proportion of cash flow claims owned by managers. Therefore we investigate separately the effects on performance of managers' votes and managers' control of equity claims. We measure managers' control of votes and ownership of equity claims one year after the creation of dual classes or the

adoption of an ESOP, and relate these measures to subsequent performance. In particular, we regress our measures of scaled operating income in years 2 through 3 (OI yrs 2–3) and in years 2 through 4 (OI yrs 2–4) on the proportion of shares controlled by managers in year 1 (α_{shares}), the proportion squared, the proportion of votes controlled by managers in year 1 (α_{votes}), and this proportion squared. Regressions were run separately on the dual class and ESOP samples. Results for the dual class sample are shown below. The t-statistics are in parentheses. Results for the ESOP sample are not reported because the regressions are insignificant.

$$\text{OI yrs 2–3} = -0.10 + 0.81(\alpha_{shares}) - 0.97(\alpha^2_{shares}) - 0.04(\alpha_{votes}) - 0.04(\alpha^2_{votes}) \quad (1)$$
$$(-2.18)\quad (2.16)\quad (-2.48)\quad (-0.14)\quad (-0.18)$$
$$n = 57;\ R^2 = 0.20;\ \text{p-value of F-statistic} = 0.02,$$

$$\text{OI yrs 2–4} = -0.06 - 0.60(\alpha_{shares}) + 0.76(\alpha^2_{shares}) + 0.66(\alpha_{votes}) - 0.57(\alpha^2_{votes}), \quad (2)$$
$$(-1.51)\quad (-1.40)\quad (1.69)\quad (2.16)\quad (-2.35)$$
$$n = 40;\ R^2 = 0.22;\ \text{p-value of F-statistic} = 0.06.$$

Eq. (1) shows a positive relation between performance in years +2 and +3 and the proportion of shares controlled by managers, and a negative relation between performance and this proportion squared. When performance in year +4 is included, Eq. (2) shows that the proportion of votes controlled by managers, and this proportion squared, are significant regressors. The inconsistencies in the signs of the coefficients between Eqs. (1) and (2) indicate there is no clear relation between performance and the proportion of votes or equity claims of managers.

Table 2 demonstrates that the divergence between the proportion of votes controlled by managers and the proportion of equity claims owned by managers results primarily from an increase in managers' voting stakes. If the increase in voting power worsens managers' incentives and harms performance, we predict that performance will suffer more for firms with a greater increase in managers' voting power. Therefore, we investigate whether the increase in managers' voting power in the first year following the creation of a second class of stock or an ESOP is related to operating performance in years +2 through +4.

Table 6 reports median measures of adjusted operating income divided by total assets for subsamples of firms grouped according to whether the proportion of votes controlled by officers and directors increased by more than 0.10 between years 0 and +1. For both dual class and ESOP firms there are no significant differences in performance in years +2, +3 and +4. The increase in voting power following the creation of a second class of stock or an ESOP does not appear to explain variation in performance among firms. In additic.., a regression analysis of changes in performance after year +1 on

Table 6
Adjusted operating cash flow as a percentage of total assets following the creation of two classes of common stock or an ESOP in the period 1976–1987 for firms grouped by the change in proportion of outstanding votes controlled by officers and directors from before to after the event (year 0 to year +1). Median value and proportion of positive values (in parentheses) of operating cash flow as a percentage of total assets adjusted for a median percentage measure for size- and industry-matched comparison firms. Operating cash flow equals net sales minus cost of goods sold and selling, general and administrative expenses. Year 0 is the year of the change to two classes or an ESOP. Officers' and directors' ownership of votes reflects the percentage of outstanding shares they and their family members own or control, as reported in the company's proxy statements

Interval	Dual class firms		ESOP firms	
	Δ votes > 0.10 n = 22	Δ votes < 0.10 n = 37	Δ votes > 0.10 n = 21	Δ votes < 0.10 n = 30
Year +2	1.06% (0.52)	−1.36% (0.33)	−2.82% (0.35) [a]	−3.19% (0.19)
Year +3	1.72 (0.65)	−1.76 (0.36)	−0.40 (0.47)	−2.25 (0.35)
Year +4	2.87 (0.58)	−2.00 (0.39)	0.08 (0.50)	−0.78 (0.50)
Years +2 through +4	1.56 (0.75)	−1.87 (0.21)	0.71 (0.50)	0.54 (0.56)
Median change in officers and directors' proportion of votes from year 0 to year +1	0.275	0.004	0.151	0.015

[a] Wilcoxon signed rank statistic is significant at the 0.01 level.

separate measures of the changes in the proportion of votes and the proportion of equity claims from year 0 to year +1 (not reported in a table) also does not explain any variation in performance among firms.

7. Other possible effects of dual classes and ESOPs

7.1. Subsequent control changes and management turnover

We investigate whether two classes of stock and ESOPs serve as an effective takeover defense by measuring the incidence of control changes that follow a switch to two classes or an adoption of an ESOP. Because not all takeovers result in the replacement of managers, we also examine the incidence of management turnover.

We matched each sample firm with the comparison firm closest in size, as measured by market value of equity. We compare the incidence of changes in control for the sample firms and the matched comparison firms. Control changes include a completed merger, a successful tender offer, and a lever-

Table 7
Frequency of changes in management and in control in the five years before and the five years following the adoption of dual classes or an ESOP in the period 1976–1987. Each firm is matched with the firm that is closest in market value of equity among firms listed on the Compustat files with the same two-digit SIC classification. Management turnover is detemined from listings of office holders reported in the Standard and Poor's Register of Corporations, Directors and Executives. Top three offices include the CEO, President, and Chair of the board of directors. If the CEO position is vacant at the beginning of the period, we treat the replacement of both the President and Chair of the board of directors as CEO turnover. Control changes following the event include a competed merger, a tender offer that achieves voting control, and a leveraged buyout by an outsider. The McNemar test as described on pages 75–80 of Siegel and Castellan (1988) is used to detect whether frequencies differ between the sample firms and their matched comparison firms

	Dual class firms	Comparison firms	ESOP firms	Comparison firms
Following event:	n = 66	n = 66	n = 52	n = 52
1. Change in control	2 (3%) [b]	12 (18%)	6 (12%)	9 (17%)
2. CEO replaced	19 (29%)	23 (35%)	20 (38%)	23 (44%)
3. CEO replaced by someone other than a top 3 officer	10 (15%) [b]	21 (32%)	15 (29%)	19 (37%)
4. Holders of top 3 offices replaced	4 (6%) [c]	17 (26%)	10 (19%)	13 (25%)
Before event:	n = 47	n = 47	n = 41	n = 41
5. CEO replaced	5 (11%) [a]	13 (28%)	14 (34%)	14 (34%)
6. CEO replaced by someone other than a top 3 officer	3 (6%)	9 (19%)	11 (27%)	11 (27%)
7. Holders of top 3 offices replaced	1 (2%) [b]	8 (17%)	9 (22%)	5 (12%)

[a,b,c] $\chi 2$ statistic is significant at the 1%, 5%, 10% level.

aged buyout by an outsider. We exclude management buyouts. We identified control changes by searching *The Wall Street Journal Index* as well as Moody's manuals for the five years after the dual class creation or ESOP adoption.

Management turnover is defined three ways. Each definition involves the departure of one or all of the holders of the offices of Chief Executive, President and Chairman of the Board in the five years following the creation of two classes or an ESOP. Management turnover was determined from management rosters reported in annual meeting proxy statements and in the *Standard and Poor's Register of Corporations, Directors and Executives*.

The first row of Table 7 reports that among 66 dual class firms, only two firms (3%) were acquired in the period we examined. Both firms had a majority of votes controlled by managers. Twelve (18%) of the 66 matched comparison firms were acquired. Six (12%) of the 52 ESOP firms were subsequently acquired and 9 (17%) of the 52 matched comparison firms were

acquired. Based on χ^2 statistics computed according to the McNemar test (see pages 75–78 of Siegel and Castellan (1988)) dual class firms, but not ESOP firms, experience an unusually low frequency of control changes.

The second through fourth rows of Table 8 report the frequencies of top management turnover following the creation of two classes or an ESOP. The frequencies of replacement of the Chief Executive Officer as reported in row 2 are not unusual for either dual class or ESOP firms. Dual class arrangements and ESOPs do not appear to lessen CEO turnover. However, row 3 shows that the frequency of replacement of the CEO of dual class firms by someone who was not formerly the holder of the position of President or Chairman of the Board is significantly less than the frequency of replacement of the CEO by an outsider for comparison firms. Similarly, row 4 shows that replacement of all of the holders of the offices of CEO, President, and Chairman of the Board is unusually low for dual class firms. We observe no unusual frequency of managerial turnover for ESOP firms. Logit regressions for the dual class and ESOP firms show no relation between the incidence of turnover of the top 3 office holders and each of the following variables: operating performance prior to the event, votes controlled by officers and directors, market value of equity, and the age of the youngest officer.

Frequencies of management turnover in the five years leading to the events are reported in rows 5 through 7. Like the period following the events, management turnover is unusually low for dual class firms but not for ESOP firms. Dual class firms appear to be firms with a lower than normal incidence of management turnover both before and after the creation of a second class of stock. This is probably due to the fact that many dual class firms are controlled by families of the founder. We conclude that changes to two classes and adoptions of ESOPs do not lead to a lower frequency of management turnover.

7.2. *Research and development expenditures*

A potential benefit of an action that defends against takeovers is that managers are able to maintain or adopt investment strategies with distant payoffs. This motive for a takeover defense seemingly applies to firms with a high or increasing level of long-term investment. We use research and development expenditures as a measure of investment with distant payoffs and examine industry-adjusted levels and annual changes in research and development expenditures around the creation of a second class of stock or an ESOP. We find, but do not report in a table, that our measures of research and development expenditures are not unusual before or after year 0. The evidence does not support the idea that the creation of dual classes or the adoption of an ESOP facilitates an investment policy that is intensive in research and development.

8. Conclusions

We study the operating performance of firms that create two classes of common stock or an employee stock ownership plan in the period 1976–1987. These actions enhance managers' voting power without a commensurate increase, and often a decline, in managers' equity stake. One view is that these actions worsen managers' incentives so that performance will suffer. Another view is that these actions provide a valuable means to solidify managers' voting power and to avoid costly disruptions of takeovers.

Following the change to two classes of common stock and the adoption of an ESOP we find evidence of poor operating performance. For both the dual class and ESOP samples, measures of operating income are negative and statistically significant in several intervals following the change. This finding represents a consequence of unbundling managers' ownership of equity claims and control of votes or it reflects an increase in managers' voting power that is timed to precede a decline in performance.

Among subsamples grouped by managers' ownership stake at the time of the change, we find that low ownership firms display normal performance before and below normal performance after the creation of two classes or the adoption of an ESOP. High ownership firms, particularly among dual class firms, show above normal performance before and normal performance after the change. The creation of two classes of stock or an ESOP marks a decline in operating performance both for firms with low and high managerial ownership stakes.

The distinguishing feature of dual classes of common stock and ESOPs is that they allow managers to unbundle their holdings of votes and equity claims. We relate performance subsequent to these events to the divergence between managers' holdings of votes and equity claims to measures of operating income. Our regression analysis uncovers some significant relations between subsequent performance and either ownership of votes or ownership of equity claims. However, the relations are unstable across different time intervals. We do not uncover reliable evidence of opposite effects of managers' control of votes and ownership of equity claims on performance.

Finally, we find no effect of dual classes and ESOPs on the incidence of control changes or on management turnover. Based on the level of managers' ownership and the nature of nearby events, we believe that managers of dual class firms sought to maintain or enhance their voting control, while managers of ESOP firms more often responded to a particular takeover threat but did not insulate themselves from the discipline of takeovers.

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