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Leadership structure: Separating the CEO and Chairman of the Board [1]

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Abstract

Shareholder activists and regulators are pressuring U.S. firms to separate the titles of CEO and Chairman of the Board. They argue that separating the titles will reduce agency costs in corporations and improve performance. The existing empirical evidence appears to support this view. We argue that this separation has potential costs, as well as potential benefits. In contrast to most of the previous empirical work, our evidence suggests that the costs of separation are larger than the benefits for most large firms.

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1. Introduction and overview

Many commentators complain that boards of directors of U.S. companies fail to provide adequate discipline of top managers. Of particular concern is the common

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practice of combining the titles of chief executive officer (CEO) and chairman of the board (Chairman) [2]. Benjamin Rosen, Chairman of Compaq Computer, voiced this concern succinctly;

> When the CEO is also chairman, management has de facto control. Yet the board is supposed to be in charge of management. Checks and balances have been thrown to the wind [3].

The United Shareholders Association and several large public pension funds in recent years have sponsored shareholder proposals at Sears Roebuck and other large firms calling for separation of the CEO and chairman titles [4]. Key legislators and regulators have begun to push for separation as a matter of general board policy. SEC Commissioner Mary Shapiro has spoken favorably of a recent recommendation by the United Kingdom's Takeover Board that the positions of CEO and chairman be separated, in order to "lessen the power of the chief executive over outside directors" [5]. Congressman Edward Markey's subcommittee held hearings on a corporate governance bill in the spring of 1993 to consider, among other structural board reforms, requiring the board chairman to be independent, or establishing limits on the circumstances in which a corporation's CEO can serve as chairman [6].

Proponents of separating the titles tend to base their arguments on a mix of anecdotal evidence and an intuitive appeal to 'common sense,' as when they claim that combining titles results in the CEO grading his own homework [7]. Furthermore, it is claimed that "there is no cogent argument for why splitting the titles would hurt corporate performance" (Business Week, November 18, 1991, p. 124).

While the empirical evidence on leadership structure is limited, much of the recent evidence appears to support the view that separating the titles would improve corporate performance. Rechner and Dalton (1991) examine 141 firms

[2] For example, see "Balancing the Power at the Top, British Style," by Richard Stevenson, New York Times, Sunday, November 15, 1992; "Sears Pushed to Split CEO's Job", USA Today, Money Section, April 22, 1993; Jensen (1993) and Lorsch and MacIver (1989).

[3] "Stockholders want Boards of Independents", USA Today, Money Section, May 14, 1993. Mr. Rosen is Chairman of Compaq Computer and is credited in the story with "turning that company around in 1991 after firing CEO Rod Canion". Mr. Rosen, who made these remarks in testimony before Congress, also opined that the CEO should be the only insider on the board.

[4] "Pension Funds Defy Sear's Management," Marlene Givant Star, Pensions and Investments, May 17, 1993.

[5] "SEC Official Favors Shaking Up Boardrooms," Robert Sanford, St. Louis Post-Dispatch, April 24, 1993.

[6] "Congress to Study Shareholders' Rights," Marlene Givant Star, Pensions and Investments, April 5, 1993.

[7] This school-work reference is attributable to Blenyth Jenkins, the director of corporate affairs for the Institute of Directors, a London trade group. He was quoted in the New York Times article cited above as follows. "One of the major functions of the board is to supervise management. If the chairman of the board is also in management, then he is in effect marking his own exam papers."

that have stable leadership structures over the period 1978–1983 (the titles are either combined or separate over the entire period). In that sample, 21.3% of the firms separate the titles, while 78.7% have one individual holding both titles. Using several accounting-based performance measures, they find that firms with separate titles consistently outperform firms with combined titles. They conclude that their results "may provide empirical support for some strongly worded admonitions about a governance structure that includes the same individual serving simultaneously as CEO and board chairperson" (p. 59). The study, however, does not control for any other variables that are likely to be jointly correlated with firm performance and leadership structure. Pi and Timme (1993) examine a sample of banks over the 1987–1990 period. Approximately 25% of the firms have separate titles, while 75% have combined titles. Their results suggest that, after controlling for firm size and some other variables, costs are lower and returns on assets are higher for firms with separate titles. They conclude that combining the two titles is a potentially suboptimal leadership structure. The generality of these results, however, is limited given that the study focuses on firms in one regulated industry. Baliga et al. (1996) analyze a sample of 181 industrial companies over the period 1986 to 1991. Twelve of the firms had separate titles over the entire time period, while 111 had combined titles. The other 58 firms changed leadership structures over the sample period. The authors compare industry-adjusted, standardized Market Value Added, as computed by Stern Stewart & Company, across the three groups of firms for the sample period. They find some evidence that leadership structure matters — firms that switched to a dual leadership structure had better long-term performance than firms which maintained combined leadership. Overall, however, the authors conclude that there is little evidence to support the hypothesis that separating the titles leads to improved firm performance.

The compositions of the samples in most of these studies are consistent with frequently cited statistics on the leadership structures of U.S. firms. For instance, the New York Times reports, "In the United States, according to various estimates, 75% to 80% of the firms combine the two jobs" (November 15, 1992, p. 4). In addition, Heidrick and Struggles Inc. (1985) report that the percentage of firms with split titles among the *Fortune 1000* and 300 leading non-industrial companies was up over 13% from 1980 to 1985. Rechner and Dalton imply that this apparent trend is related to their finding that firms with separate titles outperform funds with combined titles.

Our discussion to this point suggests that a common view on leadership structure (among regulators, financial reporters and certain academics) is as follows. (1) It is obviously better to separate the positions than to combine the positions. (2) About 20–25% of U.S. firms have separate titles and the frequency of split titles might be increasing. (3) Firms with split titles outperform firms with combined titles. (4) Firms with combined titles would increase their values by separating the titles.

The purpose of our paper is to challenge this conventional wisdom. We begin by providing a more complete discussion of both the costs and benefits of separate titles. Our analysis suggests that reformers have overlooked important costs, and that it is not theoretically obvious which leadership structure is best. Next, we present empirical evidence on this topic. First, we find that, while about 14% of the firms separate the titles, most of these firms are simply transitioning to new CEOs. For most of these firms, good-performing CEOs are eventually granted both titles. Thus, the frequently-cited statistics on the frequency of separate titles overstate the incidence of firms with fundamentally different leadership structures. Rather, they largely reflect cross-sectional differences in the timing of CEO successions. Second, the data suggest that the potential costs of separating the titles (which we discuss below) are important in determining the leadership structures in U.S. firms. Third, the evidence suggests that some firms use the title of chairman as an incentive device for new CEOs. Thus, requiring a separation of the titles would force some firms to alter their basic incentive systems for new CEOs. Fourth, our event-study evidence, as well as evidence from accounting returns, is inconsistent with the conclusion that firms with separate titles outperform firms with combined titles.

Overall, our data reinforce and further define the impression that in the U.S. achieving combined titles is the equilibrium and that separate titles signify normal succession periods or extraordinary, transitory events. We tentatively advance the argument that this widespread practice is indeed efficient and generally consistent with shareholders' interests for the typical large U.S. company and that legislative reforms forcing separate titles are misguided. Clearly, however, more detailed estimates of the costs and benefits of alternative leadership structures are required before more definitive conclusions can be reached.

2. The benefits and costs of separating the CEO and chairman titles

In our analysis, we rely on terminology dating to Hamilton (1788). We define unitary leadership structure as the case when the CEO and Chairman of the Board titles are vested in one individual. We define dual leadership structure as the case where the two positions are held by different individuals. Note that there is some confusion in the literature over these terms. Some authors use the adjectives to modify the individual, in which case, for example, 'CEO duality' would refer to the circumstance where the CEO holds both titles. We use the adjectives to characterize a feature of the organization, so that using unitary leadership (structure) to refer to a single CEO/Chairman and dual leadership to refer to two leaders is most descriptive.

2.1. Benefits of dual leadership structure

The modern large corporation is characterized by the absence of the classical entrepreneurial decision maker. Instead, in order to reap the benefits of risk

sharing, the company's residual claims are diffused among many agents, who generally vest their decision control rights in the board of directors and the CEO's office. This delegation leads to agency problems between decision agents and residual claimants and creates agency costs, which Jensen and Meckling (1976) define to be the sum of the costs of designing, implementing, and maintaining appropriate incentive and control systems and the residual loss resulting from not solving these problems completely.

Fama and Jensen (1983) argue that agency costs in large organizations are reduced by institutional arrangements that separate decision management from decision control. Decision management refers to the rights to initiate and implement recommendations for resource allocation, while decision control refers to the rights to ratify and to monitor the implementation of resource commitments.

The apex of the decision control system of large corporations is the board of directors, which generally has the power to hire, fire, and reward top operating managers, and to ratify and monitor important decisions. As Fama and Jensen point out, "the board is not an effective device for decision control unless it limits the decision discretion of individual top managers." This argument seems to imply that combining the CEO and chairman titles contradicts their separation theory (a point which they partially concede).

Extending this logic, Jensen (1993) in his Presidential Address to the American Finance Association recommends that companies separate the two titles. In this speech (p. 36), Jensen articulates the potential benefits of separation:

> The function of the chairman is to run board meetings and oversee the process of hiring, firing, evaluating, and compensating the CEO. Clearly the CEO cannot perform this function apart from his or her personal interest. Without the direction of an independent leader, it is much more difficult for the board to perform its critical function. Therefore, for the board to be effective, it is important to separate the CEO and Chairman positions. The independent chairman should, at a minimum, be given the rights to initiate board appointments, board committee assignments, and (joint with the CEO) the setting of the board's agenda.

2.2. *Costs of dual leadership structure*

2.2.1. *Agency costs*

Curiously, the discussion of separating the titles has completely ignored the critical issue of the incentives of the non-CEO chairman. Appointing an outside director chairman of the board (the head decision control agent in a large organization) might reduce the agency costs of controlling the CEO's behavior, but it introduces the agency costs of controlling the behavior of the non-CEO chairman. Granting an outside chairman increased decision rights over such things as firing the CEO and agenda setting, can give the individual enormous power to

extract rents from the firm. Thus, shareholders must be concerned about the chairman's perquisite taking, effort level and investment preferences. In the spirit of Alchian and Demsetz (1972), 'who monitors the monitor?' If the chairman is a large residual claimant, then the problem is solved as it is in the classical model of the entrepreneurial owner. But, in the large complex company, it is generally the case that no one on the board has greater reputational and financial capital at risk in the future performance of the organization than does the CEO.

2.2.2. Information costs

Presumably, CEOs have unparalleled specialized knowledge regarding the strategic challenges and opportunities facing the firm. If one accepts the apparently reasonable assumption that the CEO possesses, as a natural byproduct of his firm-specific experience, considerable specialized knowledge valuable to the chairman's job, then separating the CEO and the chairman titles necessitates the costly and generally incomplete transfer of critical information between the CEO and the chairman. One way to reduce this problem is to have the old CEO stay on as chairman indefinitely (depending on age and health). Nevertheless, keeping the old CEO on the board for an extended time period might hinder the new CEO in making changes in the organization (see Sonnenfeld (1988)).

2.2.3. Costs of changing the succession process

Another important concern relates to the succession process of CEOs. Vancil (1987) provides detailed studies of the succession processes used by about a dozen firms. These case studies suggest that a common succession process is what Vancil calls 'passing the baton'. This process has the former CEO, who recently relinquished the CEO title to the heir apparent (passed the baton), retain the chairman title during a probationary period in order to allow the board to monitor the new CEO in action. The probationary period also provides an opportunity for the old CEO to pass on relevant information to the new CEO. The new CEO generally has an additional operating title such as President or Chief Operating Officer. If the new CEO passes this test, then typically the new CEO earns the additional title of chairman, and the old chairman resigns from the board [8]. At this

[8] A classic example of passing the baton is the recently-completed succession at Merrill Lynch. In June 1993, Daniel Tully became chairman – he had been the CEO since February 1992, when he succeeded William Schreyer. Tully had been named President and COO in 1985. William Schreyer, who was non-CEO/chairman from 1992–93, during Tully's 'probation', resigned form the board concurrently with Tully's promotion to chairman. Another recent example where the new CEO was a controversial choice, is Harvey Golub's succession of James Robinson III at American Express Co. Robinson was removed as CEO/chairman by a disgruntled board, and an outside director Mr. Furlaud, was installed as chairman. Moreover, the board set up an executive committee to monitor Mr. Golub's performance during his probation period. Having passed this five-month test, the board promoted Mr. Golub to chairman, dismantled the executive committee, and allowed Mr. Golub to appoint his choice as president. See Steven Lipin, "Golub Solidifies Hold at American Express, Begins to Change Firm", Wall Street Journal, June 30, 1993, page A1.

point, the CEO often holds three titles, such as Chairman, CEO and President. After a few years, the CEO hands off the operating title to an heir apparent and the process continues. Vancil concludes that the transition period, during which time the CEO and chairman titles are separate, is deliberately structured to allow the board to readily oust the new CEO, should he or she 'drop the baton' [9]. The process also eases the transition from active duty to retirement for an aging CEO and thus makes it less likely that the CEO will attempt to hold on to his position too long. If this succession process is widely used (as Vancil's case studies suggest), regulations to separate the titles would force many firms to change their basic succession process [10]. The costs of forcing this change have not been considered in regulatory debates. For instance, the prospect of being promoted to the chairmanship potentially provides important incentives to new CEOs. These incentives are lost if the firm maintains an independent chairman.

2.2.4. Other costs

While they are hardly impartial, it is still interesting to note the objections of top management of U.S. companies to combining titles. They claim that splitting titles would dilute their power to provide effective leadership, create the potential for rivalry between the separate title holders, and that having two public spokespersons could well lead to confusion and even to opportunistic behavior by outsiders (see Lorsch and Lipton (1993)). Also, dual leadership makes it more difficult to pinpoint the blame for bad corporate performance. Similarly, some outside analysts oppose separate titles because the possible confusion both inside and outside the company about who is really in charge could harm the company [11]. These arguments receive support from the research on social choice theory which demonstrates how significant inconsistencies can arise in decision making when authority is divided among more than one person (see Arrow (1963) and Sen (1970)). Another potential cost of dual leadership is the extra compensation for the chairman. For instance, General Motors paid John Smale $300,000 for his services as outside chairman in 1993.

Interestingly, our discussion of the costs of dual leadership is reminiscent of the arguments made years ago by Alexander Hamilton in his support of a single chief executive officer in government. In the *Federalist*, Hamilton (1788) argues that dual executives increase the likelihood of agency problems, the potential for costly

[9] Recent examples of new CEOs who 'dropped the baton' and were removed before they could earn the additional title of chairman include Vaughn Bryson of Eli Lilly & Co., Richard Markham of Merck & Co., and James Paul of Coastal Corporation.

[10] Vancil (1987) claims that this process is widespread based on some large-sample data that he has collected but not fully analyzed.

[11] See the New York Times, November 15, 1992, p. 4.

disputes, the difficulty in pinpointing blame, etc. Hamilton summarizes his position as follows:

> I rarely met with an intelligent man from any of the States, who did not admit, as the result of experience, that the unity of the executive in this State (New York) was one of the best of the distinguishing features of our constitution.

2.3. *Further discussion*

Contrary to the allegations of reformers, combining the CEO and chairman titles does not necessarily violate the principle of separation of decision management and decision control. Indeed, the extreme case of no separation exists only when the 'board' has the CEO as its only member. The modern corporate board with combined titles delegates important decision functions to committees, such as compensation and auditing. Moreover, the board also retains the right to hire and fire senior management, although it is potentially more difficult for the board to oust the CEO/chairman than it is to oust the CEO/non-chairman. Indeed, boards of several large U.S. companies have ousted CEO/chairman in recent years, including Eastman Kodak (Kay Whitmore), General Motors (Robert Stempel), IBM (John Akers), American Express (James D. Robinson III), and Westinghouse (Paul Lego). Critics, however, argue that these dismissals would have happened sooner, had the boards been more independent.

Fama and Jensen (1983) recognize that the danger of shareholder harm from combined titles can be counter-balanced by effective independent outside directors who "have incentives to carry out their tasks and do not collude with managers to expropriate residual claims" [12]. Generalizing from their insight, the agency costs of unitary leadership can be mitigated by a variety of institutional mechanisms that help to align the incentives of the CEO with shareholders. Such mechanisms include large CEO stockholdings or options, a well-functioning takeover market, effective monitoring by an independent board, or effective oversight by large blockholders or institutional shareholders [13].

[12] There is a significant body of empirical evidence that outside directors impose important constraints on managerial behavior. See Brickley et al. (1994a), Brickley and James (1987), Byrd and Hickman (1992), Mayers et al. (1993), Rosenstein and Wyatt (1990) and Weisbach (1988).

[13] Evidence indicates that typical CEO's wealth is significantly related to the value of his firm's common stock (Murphy, 1985), although some commentators argue the relation is relatively small (Jensen and Murphy, 1990). There is also evidence that institutional investors and other blockholders help to control managerial behavior through voting and lobbying. See Brickley et al. (1988), Brickley et al. (1994b) and Van Nuys (1993). Numerous studies suggest that the takeover market imposes constraints on managers. See Jarrell et al. (1988) and Jensen and Ruback (1983) for reviews of this literature.

In conclusion, it is not theoretically obvious whether dual or unitary leadership is optimal. Rather both forms of leadership involve potential costs, as well as benefits. Separating the titles is efficient for shareholders only if the reduced agency costs of controlling the CEO's behavior are not outweighed by the sum of the agency, information, and other costs associated with the change. Also, since the costs and benefits of different leadership structures can vary across firms, it is possible that the optimal structure will vary across firms.

Proponents of dual leadership might concede these arguments, but assert that the facts indicate that the benefits of dual leadership are larger than the costs for most firms. For instance, existing studies suggest that 20–25% of U.S. firms have separate titles and that these firms outperform firms with combined titles. Our subsequent empirical analysis, however, suggests that the conventional interpretation of the data is wrong.

3. Empirical results

3.1. Leadership structure in U.S. firms

We begin our empirical analysis by providing a detailed characterization of the leadership structures of large U.S. firms. For this analysis, we use a sample of firms from the 1989 *Forbes* survey of executive compensation [14]. This survey contains information on compensation and other variables for the CEOs of 737 firms for the 1988 fiscal year. Throughout this paper, the data on CEO age, tenure, compensation, stock ownership, and net sales of the firm are from Forbes. We consulted Dunn and Bradstreet's, *Reference Book of Corporate Managements*, to obtain the exact title of each CEO in the Forbes survey at year-end 1988 [15]. If the CEO was not the chairman, we also recorded the identity and employment background of the chairman. We were able to find the relevant information for 661 firms.

Table 1 classifies the sample by whether the CEO holds the title of chairman. In slightly over 80% of the firms, the CEO holds the chairman title. About 5% of the firms do not have a chairman. In the remaining 14% of the cases there is a non-CEO chairman of the board.

As Table 1 also indicates, for the 93 firms in our sample with separate chairs, 76 (81.72% of the dual leadership subsample and 11.50% of the full sample) have chairmen who are either former CEOs, founders, or other top officers of the

[14] We are grateful to Kevin J. Murphy for providing us with a computer-readable version of this data base.

[15] In at least a few cases, this reference source does not report changes in titles in a timely fashion. Thus, for some firms, we may not have the exact title held by the person at year-end 1988. For instance, we might have the title held at the beginning of the year.

Table 1
The relation between the CEO and Chairman of the Board at year end 1988 for a sample of 661 firms contained in Forbes Executive Compensation Survey

Panel A: Full sample

	Number	Percent
Same person holds both titles	535	80.94
Different people hold the two titles	93	14.07
No person holds title of Chairman of the Board	33	4.99

Panel B: Classification of 93 cases of dual leadership

	Number	Percent of dual leadership cases	Percent of full sample
Only affiliation (past or present) with company is chair position (and possibly board membership)	17	18.28%	2.57%
Former CEO or president	61	65.59%	9.23%
Former officer in an affiliate (subsidiary, merger partner, etc.)	10	10.75%	1.51%
CEO of parent company	1	1.08%	0.15%
Former lower-level officer	1	1.08%	0.15%
Founder	3	3.23%	0.45%

company or an affiliate. Only 17 firms have *independent* chairmen (chairmen who are not current or former employees of the company). These firms represent 18.28% of the firms with separate chairmen and only 2.57% of the overall sample. Eleven of these 17 firms are from the financial sector, while only six are nonfinancial firms [16]. The firms tend to be among the smaller firms in our data base. For example, the median firm in this subsample has assets of $2.24 billion, compared to $4.24 billion for the other 644 firms in the sample. These values are significantly different with a p-value of 0.036 from the Wilcoxon rank-sum test [17].

Table 2 presents data (from proxy statements) on the chairman's stock owner-

[16] In our sample, the incidence of dual leadership for banks and thrifts, 15.33%, is about the same as for other firms, 14.66%, and the Pearson χ^2 test does not reject the null hypothesis of equal rates of dual leadership structure. On the other hand, there is a significantly higher proportion of truly independent chairs for banks and thrifts, 7.94%, as compared to other firms, 1.64% ($\chi^2 = 12.90$, $p = 0.0001$).

[17] One obvious possibility for future work is use the approach in this paper to compare in detail differences in the pattern of usage of leadership structure across countries. Using a less detailed approach, Dalton and Kesner (1987) find that the incidence of combined CEO and Chairman of the Board positions is 82.0% in the U.S., as compared to 30.0% in the U.K. and 10.9% in Japan. While the incidence of usage appears to he significantly different across countries, they find few differences in the relation between their relatively coarse measure of leadership structure and other organizational features, such as representation on the board by outside directors, board size, and firm size, across the three countries.

Table 2
Beneficial stock ownership and years on the board as of 1988 for the chairman of the board of 11 financial companies, where the chairman was not a former or current top operating officer of the company or an affiliate. The subsample of 11 firms meets the relevant criteria from a total sample of 661 firms contained in the Forbes survey of executive compensation for 1988. Data are from the firms' proxy statements

Company	Chairman: Percent stock ownership	Chairman: Years on board	Chairman: ownership > CEO ownership?
American National Ins.	1.23% [a]	28	yes
Atlantic Financial	0.63%	6	no
Bank South	0.63%	19	yes
Farm & Home Savings	3.07%	20	yes
First Commerce Corp.	7.80%	5	yes
National Community Bank	4.33%	41	yes
Progressive	10.00%	0	yes
Security Bancorp	0.60%	25	no
Security Capital	0.37%	—	no
Sunwest Financial	0.37%	13	yes
Valley Federal S&L	0.85%	18	yes
Average	2.72%	17.5	8 of 11

[a] The chairman of American National Insurance is a member of a family that owns a substantial interest in the company.

ship and tenure on the board for the 11 financial firms with independent chairmen. The average stock ownership is 2.72%. In eight out of 11 firms, the chairman's stock ownership is greater than the CEOs. Average tenure on the board is 17.5 years, ranging from 0 to 41 years. These data suggest that the potential information and agency problems associated with separate titles are mitigated in these firms by the chairman's stock ownership and long tenure with the firm. Table 3 presents related information for the six nonfinancial firms with independent chairmen. Again the chairmen tend to hold reasonably large amounts of stock (except in the case of Engelhard). In addition, the firms tend to be special cases. For example, the chairman or his family is a major blockholder, the chairman has been with the firm since inception (for example, as a venture capitalist), or the firm was recently acquired in a merger.

We were able to obtain information on the leadership structures of 14 of the 17 firms (with outside chairmen in 1988) for 1994. All but one of these firms still had dual leadership five years later. Thus, for these firms, having separate people in the two top positions appears to be a stable leadership structure. The data, however, indicate that none of the larger firms in our sample had a leadership structure where an independent outside director without special ties to the firm held the chairman position. This finding implies, that unless all major firms had suboptimal board structures in 1988, having outside directors as chairmen is

Table 3
Beneficial stock ownership and commentary for the chairman of the board as of 1988 of 6 nonfinancial companies, where the chairman was not a former or current top operating officer of the company or an affiliate. The subsample of 6 firms meets the relevant criteria from a total sample of 661 firms contained in the Forbes survey of executive compensation for 1988. Data are from the firms' proxy statements

Company	Chairman: Percent stock ownership	Notes
Compaq computer	0.80%	Chairman has been with the company since inception
Engelhard	0.01%	Chairman is on the board of a foreign company that owns 30.2% of the stock
Rexene	28.71%	Company involved in a recent merger
Spiegel	97.5% [a]	The chairman controls the voting stock of the company. He owns little of the nonvoting stock
Tandem computers	1.1%	Chairman has been with company since inception
Wheeling–Pittsburg steel	34.2%	Family is the largest shareholder in the company

[a] Ownership for class-B stock (the voting stock). The chairman disclaims beneficial ownership of some of the stock.

unlikely to be optimal for most large firms. While it is possible that all large firms are suboptimally organized, such a sweeping assertion of inefficiency should not be embraced without a cogent explanation for how such an important corporate-control practice can be wealth-decreasing and still survive in the competitive marketplace for so long across so many companies.

One concern is that our data are over 5 years old. For instance, it is possible that increased foreign competition has motivated firms to change their leadership structures in the last few years. To address this concern, we examine the 1994 leadership structures of the largest 100 firms in our sample. We find that only General Motors had an outside director as chairman. The leadership structures for the remaining 99 firms are as follows: 89 have unitary leadership, 2 are no longer independent firms, 7 have dual leadership with former CEOs serving as chairmen, 1 (Digital Equipment) has no chairman. Thus, our characterization of American leadership structures continues to hold with more recent data. Indeed, General Motors recently went back to a unitary leadership structure.

The data in Tables 2 and 3 suggest that the potential information and agency problems associated with dual leadership are important considerations in the choice of leadership structure. In particular, there is essentially no firm in the data base that has an outside chairman who does not have significant experience with the firm — either as a former officer or as a long-time board member. In addition, outside chairmen tend to own significant amounts of stock. Thus, whenever separate chairman are used, additional mechanisms or circumstances are observed that help to control information and agency problems. Holmstrom and Milgrom

(1994) argue that this type of evidence provides important support for agency-related explanations for organizational structure. In their analysis, the chairman title, chairman stock ownership, and years with the firm would be viewed as complements (increasing one of these variables increases the benefits from increasing the other variables).

3.2. Evidence on passing the baton

Table 4 compares the net sales, CEO tenure, and other selected variables of firms that separate the titles of CEO and chairman with those firms that do not. For this and the subsequent analysis, we eliminate the 33 firms that do not have a chairman [18]. Firms with separate chairman tend to be somewhat smaller and have fewer growth opportunities (as measured by the ratio of the market value of equity to book value of equity). Further, dual firms have younger CEOs that have less tenure, own less stock, and receive lower compensation levels compared with the CEO/chairman of the other firms. This description, together with the fact that most of the separate chairmen are former CEOs, appears quite consistent with the pass-the-baton (or relay) pattern of CEO succession identified by Vancil [19]. Under the Vancil scenario, in the cross section we would expect firms to be at different stages of their succession process, with firms having CEOs with limited tenure being more likely to be in the transition phase.

Recall that in the passing-the-baton process, the CEO starts with the title CEO and President (or some other operating title). After completing the probationary period, he holds three titles (chairman, CEO and president). After a few years, he passes the operating title to an heir apparent. Table 5 reports tenure statistics that are consistent with this pattern. CEOs who are not also the chairman have relatively short mean tenure of 4.2 years. CEOs who also possess the chairman title and an operating title have significantly longer mean tenure of 7.3 years. Finally, CEOs who are chairman but do not possess an operating title have the longest mean tenure of 10.4 years. The ANOVA F-test allows rejection of the null hypothesis of equal means across the three groups at the 0.01 level of significance, while the Kruskal–Wallis test rejects the null hypothesis of equal medians across the three categories at $p = 0.0001$. Both means and medians exhibit the same

[18] One interpretation of the sample observations for which there is no chairman is that those firms have a unitary leadership structure. Thus, we reclassified those 33 observations as unitary leadership and repeated all of the analysis that follows. This reclassification does not yield results that are materially different from the results we report below. The only differences come in a small number of cases where the test statistic is less significant. It may be that these 33 observations increase the measurement error in the sample.

[19] We performed the same statistical comparisons as in Table 4 for the 535 unitary firms versus the 17 cases of dual leadership where the chair has no prior affiliation with the firm and for the 535 unitary firms versus the 76 (93 − 17) dual firms in which the chair is not completely independent. The comparison results are very similar to those reported in Table 4.

Table 4
Descriptive statistics for a sample of 628 firms contained in Forbes survey of executive compensation (data for 1988) classified by whether there is a separate Chairman of the Board [a]

	Median for the 93 firms with separate CEO and chairman	Median for the 535 firms where the CEO is also the chairman	p-value of test for difference (ANOVA/ Wilcoxon Rank-Sum Test)
Net sales of firm ($ millions)	1,939.60	2,250.21	ANOVA $p = 0.0381$/ Wilcoxon $p = 0.012$
CEO age	53.17	58.50	0.000/0.000
Tenure as CEO (years)	2.92	6.92	0.000/0.000
CEO's prior experience with firm (years)	15.00	15.75	0.761/0.683
CEO stock ownership (percent of firm)	0.13	0.18	0.070/0.096
Value of CEO stock ownership ($ millions)	1.20	2.70	0.231/0.001
Salary and bonus compensation of CEO ($ thousands)	571.00	785.00	0.001/0.000
Total compensation of CEO ($ thousands)	675.00	985.00	0.060/0.000
Market value of equity divided by book value equity	1.87	1.55	0.060/0.071

[a] This table eliminates 33 firms from the original sample of 661 where there is no chairman of the board. Data on sales, CEO age, tenure, stock ownership and compensation are from Forbes. Data on the market and book values of equity are from Compustat. The Forbes definition of total compensation includes salary, bonus, value of restricted stock, savings and thrift plans, and other benefits. Some calculations are based on slightly smaller subsamples due to missing values on the Compustat Tapes.

pattern, and the pattern serves as additional evidence of Vancil's relay succession process.

An indication of the frequency of firms that use this succession process can be obtained by examining the titles of newly-appointed CEOs. Our sample includes 53 CEOs with less than one year of tenure. Among these CEOs, 64% hold the title of chairman. Presumably, most of these CEOs were appointed chair and CEO at the same time. Thus, roughly one-third of the firms in our sample appear to use the baton process (assuming that most of the other firms use the baton process). A similar frequency can be inferred from the composition of the sample in Baliga et al. (1996).

While our data suggest that a significant number of firms use the relay process, an alternative interpretation of the data in Table 5 is managerial entrenchment. In particular, combined titles might imply that the CEO is not accountable to shareholders and is seldom fired for poor performance. In this case, the average age and tenure would be higher in a sample of firms with unitary leadership than in a sample of dual-leadership firms, where the managers turn over more frequently. Furthermore, combined titles might be associated with higher CEO compensation.

Table 5
Distribution of tenure as CEO by title of CEO for a sample of 628 firms at year end 1988 for a sample of 628 firms contained in Forbes survey of executive compensation [a]

Title	Sample size	Average tenure (years) [b]	Median tenure (years) [c]
CEO does not hold the title of chairman of the board (there is a separate chairman)	93	4.22	2.92
CEO is chairman of the board and has an additional operating title (e.g., Chairman, CEO and President)	186	7.36	4.92
CEO is also Chairman of the board but does not have an additional operating title	348	10.39	7.92

[a] This table eliminates 33 firms from the original sample of 661 where there is no Chairman of the Board.
[b] The ANOVA F-statistic of 30.73 allows rejection of equal mean years of tenure across titles at the 0.0001 level of significance.
[c] The Kruskal–Wallis chi-squared of 75.28 allows rejection of equal median years of tenure across titles at the 0.0001 level of significance.

In fact, Table 4 indicates that both salary and bonus and total compensation (salary, bonus, options, deferred and other compensation) are higher when the CEO is also chairman. But Table 4 also shows that unitary leadership firms are larger, and there is a well-documented, positive relation between firm size and CEO compensation (e.g., see Murphy (1985)). Furthermore, differences in CEO tenure, which would imply differences in location on the earnings-experience curve, and firm performance during the CEO's tenure both could drive disparities in compensation. Thus, further evidence on CEO compensation as an indicator of managerial entrenchment is provided in Table 6. We regress measures of CEO compensation, either salary and bonus paid to the CEO or total compensation paid to the CEO, or the natural logarithm of each [20], on an indicator variable that takes the value of one if the CEO is also chairman and zero otherwise. In addition to the leadership structure dummy, the other explanatory variables are the logarithm of sales (in $ millions), to control for firm size, either the tenure of the CEO or the logarithm of CEO tenure, to control for work experience, and market performance of the firm over the CEO's tenure. In none of the four specifications in Table 6 is the leadership structure dummy significant. In contrast, both salary and bonus and total compensation depend in a positive and statistically-significant way on firm size and market performance of the firm. On the basis of these results, there is little evidence, controlling for firm size, firm performance associated with the CEO, and work experience of the CEO, that CEOs who also chair the board are able to expropriate shareholder wealth to increase their own compensation.

[20] In empirical work on compensation, it is customary to transform compensation levels with the natural logarithm. See, for example, Murphy (1985).

Table 6
Regression of measures of CEO compensation and stock ownership on a leadership structure dummy variable with value equal to one if the positions of CEO and Chairman of the Board are held by one person (zero if held by two persons), the natural logarithm of sales (in $ millions), tenure (in years) of the CEO at the firm as CEO, CEO age, and prior firm/CEO market performance. Sample of 628 firms is derived from the Forbes survey of executive compensation [a]. All data are for 1988, and t-statistics are in parentheses.

	(1)	(2)	(3)	(4)
Independent variable	Dependent variable: Salary and bonus of CEO ($000s)	Dependent variable: Total compensation of CEO ($000s)	Dependent variable: Logarithm of salary and bonus of CEO ($000s)	Dependent variable: Logarithm of total compensation of CEO ($000s)
Intercept	−1185.2 ***	−2745.34 ***	4.28 ***	4.0 ***
	(−7.12)	(−3.84)	(29.79)	(19.21)
Leadership structure dummy: Equals 1 if positions are combined, 0 if separated	70.93	293.56	0.06	0.10
	(1.05)	(1.03)	(0.95)	(1.21)
Logarithm of sales	238.7 ***	469.30 ***	0.27 ***	0.32 ***
	(11.66)	(5.33)	(15.39)	(12.62)
Tenure of CEO as CEO	10.58***	−5.59	—	—
	(3.48)	(−0.43)		
Logarithm of CEO tenure as CEO	—	—	0.10 ***	0.07 **
			(4.79)	(2.17)
Prior Firm/CEO stock return [b]	357.24***	2365.51 ***	0.34 ***	0.85 ***
	(3.21)	(4.84)		(5.92)
F-statistic	41.11 ***	14.10 ***	70.9 ***	54.30 ***
Adjusted R^2	0.23	0.09	0.35	0.30

[a] This analysis excludes 33 of the original 661 sample firms because there is no chairman of the board. Some calculations are based on slightly smaller subsamples due to missing values on the Compustat Tapes.
[b] Prior stock return calculated over the minimum of the CEO's tenure as CEO or four years.
*** Significant at $p = 0.01$.
** Significant at $p = 0.05$.
* Significant at $p = 0.10$.

Additional evidence on whether managerial entrenchment or the Vancil succession story best explains the data is provided by examining the relation between prior firm performance and the leadership structure. Under the relay process, presumably CEOs are promoted to chairmen after completing a successful probationary period. If the CEO's performance is substandard, the probationary period is prolonged, or in extreme cases the CEO is dismissed. (As the regressions in Table 6 suggest, increases in salary and bonus or total compensation would also be postponed or foregone.) This succession process implies that, holding the number of years as CEO constant, the likelihood of being chairman increases with prior firm performance. In contrast, the entrenchment argument makes no such prediction. In this context, to provide additional evidence on the succession process, we follow for five years the 50 CEOs in our sample who have less than three years of tenure in 1988 and do not hold the chairman title at that time. Of the 50 CEOs, 24 were promoted CEO/chairman, of which 21 are still with the firm in 1993 and three left the firm before 1993. Combining these two groups yields the 'promotion' subsample of 24 CEOs. In contrast, seven CEOs are no longer CEO and occupy no position on the board — call this group the 'departure' subsample. Of the remaining 19 CEOs in 1993, five are still CEO but are not chairmen, five are not CEO but are on the board of directors, and nine are missing from the sample due to acquisition of the firm.

A closer look at these data reveals that for most firms the probationary period of the CEO results in an 'up or out' decision. The five instances where the person is still CEO but does not have the chair title, are all special cases where the chairman is a founder, co-founder, or long-time officer of the firm (since the 1950s) with substantial stock ownership (ranging from 1.6% to 9.4%).

Interestingly, as Table 7 indicates, the performance of the firms where the CEO is promoted to CEO/chairman is substantially better than for the firms where the CEO left the firm without being promoted to the chairman position. To measure performance, we calculate return on capital and stock return over the CEO's tenure [21]. Each measure is calculated over the period during which the manager is CEO but not Chairman, for the promotion subsample, and over the CEO's tenure prior to departure, for the departure subsample. For the industry-adjusted measures, we subtract from firm/CEO return on capital or stock performance the industry median (same four-digit SIC code on the COMPUSTAT Tapes) of the same performance measure. All performance measures are presented as compounded annual returns.

The median stock performance of the 24 CEOs in the combined promotion

[21] Return on capital measures accounting performance, while market return captures performance that is not anticipated by the market. We use return on capital as our accounting measure because this choice shrinks the sample less than using return on equity. The results using return on equity are similar.

Table 7
The status of 31 CEOs in 1993, who have less than 3 years of tenure (as CEO) and do not hold the chairman title in 1988 and who were either promoted to CEO/chair or departed without being promoted to CEO/chair. The table also presents the market and accounting performance for the CEO over their tenure either up to promotion or up to departure

1993 status	#	%	Median annual stock return	Median annual stock return net of industry median	Median annual return on capital [a]	Median annual return on capital [a] net of industry median
(1) Is CEO and chair, still with firm	21	67.74%	5.38%	3.39%	16.15%	4.12%
(2) Became CEO/Chair but departed before 1993	3	9.68%	−7.26%	8.94%	12.38%	2.97%
(3) In 1993 is not CEO and is not on board (Departure subsample)	7	22.58%	−28.38%	−24.60%	8.52%	−0.15%
(4): (1) and (2) Combined (Promotion subsample)	24	77.42%	5.38%	3.39%	15.10%	4.12%
Comparison of (3) (Departure Subsample) and (4) (Combined promotion) Subsample: ANOVA p-value/Wilcoxon rank-sum p-value	—	—	0.0038/0.0093	0.0002/0.0028	0.2533/0.0495	0.9972/0.3130
Comparison of (2) and (1): ANOVA p-value/Wilcoxon rank-sum p-value	—	—	0.0027/0.0085	0.0001/0.0028	0.2329/0.0602	0.9358/0.3026

[a] Income before extraordinary items and discontinued operations plus interest and minority interest (income account) all divided by invested capital (total) in prior fiscal year.

subsample is 5.38% compared to −28.38% for the departure subsample. These returns are significantly different at the five percent level on the basis of standard ANOVA ($p = 0.0038$) and the Wilcoxon rank-sum test ($p = 0.0093$). A comparison of industry-adjusted stock returns yields a similar result. The median in the promotion subsample is 3.39% versus −24.60% for CEOs who were not promoted to Chairman. Again, the returns are significantly different: ANOVA $p = 0.0001$ and Wilcoxon rank-sum $p = 0.0028$. Differences in accounting returns over the tenure of the CEO as CEO are less apparent. Return on capital and industry-adjusted return on capital are both larger for the promotion subsample, 15.10% and 4.12%, than for the departure subsample, 8.52% and −0.15%, respectively. Only the Wilcoxon rank-sum test for unadjusted return on capital, however, suggests a significant difference [22].

To test the power of CEO performance to predict whether the CEO is promoted to chairman or leaves the firm, we regress an indicator variable that assigns a value of one to the promotion subsample and zero to the departure subsample on our various measures of CEO performance. We control for whether the firm is a bank, thrift, or insurance company (the financial dummy variable equals one) and firm size (natural logarithm of sales). The results are presented in Table 8. Consistent with the results in Table 7, stock market return over the CEO's tenure has more power than accounting return to explain whether the CEO is promoted to CEO/chairman. The estimated coefficients on stock return and industry-adjusted stock return are positive and highly significant ($p = 0.0016$ and $p = 0.0001$, respectively). In those two specifications, the dummy variable for financial firms also is positive and significant. In contrast, firm size and accounting return are insignificant in all specifications in which they are included [23,24].

Collectively, the evidence provides rather strong support for the proposition that a reasonable fraction of firms in the U.S. use the passing-the-baton process suggested by Vancil's case studies. In addition, our evidence suggests that these

[22] The median age of the CEOs in 1993 for the departure subsample is 58, suggesting that most of these are not ordinary retirements. These results are consistent with the findings in Table 7, which suggest that some firms use the title of chairman (along with retention) as a reward for CEOs, who perform well during their probationary periods.

[23] The analysis presented in Table 8 is analogous to work on the effect of firm performance on the likelihood of the CEO. See Coughlan and Schmidt (1985), Warner et al. (1988), and Weisbach (1988), for example.

[24] We also estimated the sort of specification presented in Table 8 using the cross-section of 1988 data for 628 firms. On the left-hand side is the leadership structure dummy, and explanatory variables include separate industry dummies for utilities, insurance companies, and banks and thrifts, the logarithm of sales, tenure of the manager as CEO, market value of equity divided by book value of equity, and either return on capital or stock return (unadjusted and adjusted by industry median) over the CEO's tenure. Naming only parameter estimates that are statistically-significant, the probability that the positions are combined is negatively related to market-to-book, positively related to the log of sales, positively related to CEO tenure as CEO, and positively related to CEO/firm accounting return.

Table 8
Regression of a dummy variable with value equal to 1 if the CEO was promoted to CEO/chairman and 0 if the CEO left the firm without being promoted on variables measuring firm size, industry, and firm performance over the CEOs tenure before promotion or departure. Sample consists of 31 CEOs in 1993, who have less than 3 years of tenure (as CEO) and do not hold the chairman title in 1988 and who were either promoted to CEO/chair or departed without being promoted to CEO/chair.

	(1)	(2)	(3)	(4)
Independent variable	Dependent variable: Promotion dummy	Dependent variable: Promotion dummy	Dependent variable: Promotion dummy	Dependent variable: Promotion dummy
Intercept	0.62 (0.99)	0.60 (1.13)	−0.70 (−0.56)	−0.60 (−0.41)
CEO stock return	0.87 *** (3.61)	—	—	—
Industry-adjusted CEO stock return	—	1.31 *** (5.01)	—	—
CEO return on capital [a]	—	—	0.75 (1.04)	—
CEO Industry-adjusted return on capital [a]	—	—	—	0.87 (0.56)
Dummy for financial firms	0.38 ** (2.11)	0.36 ** (2.34)	0.02 (0.05)	0.35 (1.19)
Logarithm of sales	0.01 (0.17)	0.02 (0.30)	0.18 (1.10)	0.17 (0.92)
F-statistic	5.26 ***	9.63 ***	0.86	0.58
Adjusted *R*-squared	0.34	0.51	−0.02	−0.08

[a] Income before extraordinary items and discontinued operations plus interest and minority interest (income account) all divided by invested capital (total) in prior fiscal year.
*** Significant at $p = 0.01$. ** Significant at $p = 0.05$. * Significant at $p = 0.10$.

firms use the chairman title as a reward to CEOs for good performance. These findings suggest that officials, considering requirements to combine the titles, should be careful to evaluate the potential costs of forcing these firms to change their succession processes and incentive systems.

Our results also call into question the interpretation of studies that compare the performance of firms based on leadership structure. For instance, the sample of Pi and Timme (1993) includes any bank that had the same leadership structure for a two-year period. Our data suggests that many of the banks classified as having dual leadership are likely to have the same long-run leadership structures as many other banks, but they are simply at different stages in the same basic succession process. Thus, their study may be picking up differences in accounting performance over the life cycle of CEOs, rather than differences in performance across leadership structures [25]. One potential defense of their work, however, is as follows. Firms can be categorized into three types of leadership structures: Those that maintain dual leadership, those that maintain unitary leadership, and those that switch leadership structures through the baton process. Banks observed with dual leadership at a point in time either are firms that are passing the baton or firms that maintain dual leadership. In contrast, banks that are observed with unitary leadership either are firms that use the baton process or that maintain unitary leadership. If maintaining unitary leadership is the worst structure, Pi and Timme would expect to find better performance for the firms that are observed to have dual leadership structures [26]. Indeed, Baliga et al. (1996) find that firms that switch from unitary leadership structure to dual leadership structure (which are likely to be firms passing the baton) have better long-term performance than firms that maintain unitary leadership. Rechner and Dalton (1991) avoid these issues by concentrating on firms that have the same leadership structure for a six-year period. Our analysis, however, indicates that there are very few large firms that have dual leadership and that meet this criterion. Thus, their analysis must concentrate on relatively small firms. In contrast, the financial press and regulators focus their attention on large firms.

3.3. Leadership structure and accounting performance

This discussion suggests that differences in accounting returns across subsamples with alternative leadership structures are hard to interpret. Nevertheless, it is interesting to see if the association between returns and leadership structure documented in previous work is present in our data.

[25] Murphy and Zimmerman (1993) provide evidence on the possible existence of systematic patterns in accounting returns over the tenure of the typical CEO.

[26] Nevertheless, as we document below, the results in Pi and Timme (1993) are not borne out in the subsample of our firms that are banks and thrifts.

In the spirit of previous work on this topic, in Table 9 we compare the accounting performance for the two subsamples for fiscal year 1988 and beyond. Median return on capital in 1988 was 13.8% for firms with separated positions, and 15.2% for firms that combine the positions. These returns are significantly different based on the standard ANOVA F-test ($p = 0.013$) and the Wilcoxon rank-sum test ($p = 0.043$). Over the period 1989–1991, unitary firms and dual firms earned essentially the same return on capital. In contrast, over the period 1989–91 the median stock return for unitary firms, 13.5%, was significantly larger than the median stock return of dual firms, 9.1%, at the five percent level using ANOVA ($p = 0.031$) and at the ten percent level on the basis of the Wilcoxon rank-sum test ($p = 0.063$). Stock return in 1988 was 17.1% for unitary firms, as compared to 10.6% for dual firms. The difference is not significant using ANOVA ($p = 0.204$), but is significant using the nonparametric test (Wilcoxon rank-sum $p = 0.032$). When comparing accounting and market returns adjusted by industry

Table 9
Comparison of accounting and stock performance measures, both raw and industry-adjusted, for 1988 and 1989–1991, for firms that combine the positions of CEO and chairman of the board versus firms that separate the two positions. Sample of 628 firms is derived from the Forbes survey of executive compensation [a].

Performance measure [b]	Median annualized performance for the 93 firms with separate CEO and chairman of the board	Median annualized performance for the 535 firms where the CEO is also chairman of the board	ANOVA p-value/ Wilcoxon rank-sum p-value
Return on capital: 1988	13.8%	15.2%	ANOVA $p = 0.013$/ Wilcoxon rank-sum $p = 0.043$
Stock return: 1988	10.6%	17.1%	0.204/0.032
Industry-adjusted return on capital: 1988	2.4%	1.2%	0.225/0.570
Industry-adjusted stock return: 1988	−2.5%	1.0%	0.341/0.046
Return on Capital: 1989–91	12.4%	12.6%	0.514/0.586
Stock Return: 1989–91	9.1%	13.5%	0.031/0.063
Industry-adjusted return on capital: 1989–91	2.7%	0.3%	0.170/0.061
Industry-adjusted stock return: 1989–91	4.0%	2.4%	0.245/0.563

[a] This analysis excludes 33 of the original 661 sample firms because there is no chairman of the board. Some calculations are based on slightly smaller subsamples due to missing values on the Compustat Tapes.

[b] Return on capital is income before extraordinary items and discontinued operations plus interest and minority interest (income account) all divided by invested capital (total) at end of prior fiscal year. All reported values are medians. Industry benchmarks are the median value of the performance measure from all companies with same 4-digit SIC code.

medians, the differences in both periods across the two subsamples generally are insignificant. These results are interesting because, in contrast to previous studies, they suggest that firms with dual leadership do not necessarily have lower accounting returns than firms with unitary leadership [27]. If anything, our results suggest just the opposite. They should be interpreted with caution, however, because the univariate tests do not control for other potential determinants of firm performance.

To address this problem, for each of the performance measures in Table 9, we regress that measure on the leadership structure indicator variable (equals one if the positions are combined, zero if separated) and other explanatory variables. The logarithm of sales is our proxy for firm size, and we include a dummy variable for financial companies. Murphy and Zimmerman (1993) find that accounting numbers follow a pattern associated with the life-cycle of the manager as CEO. We include CEO tenure to account for this effect.

In seven of the eight specifications presented in Table 10, the estimated coefficient on leadership structure is positive, the exception being industry-adjusted ROC for 1989–91. Furthermore, in three cases the estimated coefficient is positive and significant at the five percent level (1988 ROC, $p = 0.0028$; 1988 industry-adjusted ROC, $p = 0.0261$; 1989–1991 stock return, $p = 0.0497$). Note that CEO tenure and firm size are generally insignificant, while the dummy for financial firms is almost always significant, but with varying sign. Once again, the evidence from our sample counters the conventional wisdom. If anything, combining the positions is associated with better performance.

Finally, as a basis of comparison with Pi and Timme (1993), we performed the same comparisons in Table 9 for the 130 banks and thrifts in our sample, of which 116 combine the positions and 14 separate the positions. For seven of the eight performance measures in Table 9, performance of the unitary firms exceeds that of the dual firms (the exception was ROC over 1989–91). In no case is accounting performance significantly different across the two organizational modes. In contrast, market performance in 1988 (ANOVA $p = 0.169$; Wilcoxon rank-sum $p = 0.028$), industry-adjusted market performance in 1988 (ANOVA $p = 0.257$; Wilcoxon rank-sum $p = 0.045$), market return over 1989–91 (ANOVA $p = 0.013$; Wilcoxon rank-sum $p = 0.021$), and market-adjusted return over 1989–91 (ANOVA $p = 0.115$; Wilcoxon rank-sum $p = 0.063$) were significantly (or nearly so) higher for firms with combined positions. We also duplicated the analysis in Table 10 for the subsample of banks and thrifts (excluding the dummy for financial firms). The leadership structure dummy is positive in seven of eight cases. In three cases, that coefficient is positive and significant at the ten percent

[27] As another check, we compare the performance of the 17 firms with outside chairmen with other firms in the sample. Again, we find no significant difference in the period including and following 1988.

Table 10
Regression of various measures of firm performance on the leadership structure dummy, CEO tenure, firm size, and a dummy for financial firms. Sample of 628 firms is derived from the Forbes survey of executive compensation [a]. All data are for 1988, and *t*-statistics are in parentheses.

Dependent variable/independent variable	Return on capital: 1988	Industry-adjusted return on capital: 1988	Stock return: 1988	Industry-adjusted stock return: 1988	Return on capital: 1989–1991	Industry-adjusted return on capital: 1989–1991	Stock return: 1989–1991	Industry-adjusted stock return: 1989–1991
Intercept	0.41 ***	0.05	−0.01	−0.09	0.42 ***	0.07	0.04	0.03
	(5.62)	(1.09)	(−0.08)	(−1.06)	(4.61)	(1.37)	(0.54)	(0.41)
Leadership structure dummy: Equals 1 if positions are combined, 0 if separated	0.08 ***	0.04 **	0.03	0.02	0.01	−0.03	0.06 **	0.03
	(3.01)	(2.23)	(0.83)	(0.56)	(0.39)	(−1.24)	(1.97)	(0.99)
Tenure as CEO	−0.00 **	−0.00	0.00	0.00 *	−0.00	0.00	0.00	0.00
	(−2.01)	(−0.43)	(1.35)	(1.71)	(−0.74)	(0.23)	(0.65)	(1.36)
Logarithm of sales	−0.04 ***	−0.00	0.02	0.01	−0.04 ***	−0.00	0.00	−0.00
	(4.44)	(−0.88)	(1.59)	(1.17)	(−3.40)	(−0.54)	(0.11)	(−0.38)
Industry dummy: Equals 1 if firm is a financial, 0 if industrial	0.31 ***	−0.04 ***	−0.04	−0.06 **	−0.34 ***	−0.03 *	−0.05 **	−0.09 ***
	(14.25)	(−2.96)	(−1.12)	(−2.47)	(12.30)	(−1.68)	(−2.22)	(−3.87)
F-Statistic	80.17 ***	3.15 **	2.14 *	3.50 ***	56.60 ***	1.19	2.69 **	4.78 ***
Adjusted R^2	0.46	0.02	0.01	0.02	0.23	0.00	0.01	0.03

[a] This analysis excludes 33 of the original 661 sample Firms because there is no Chairman of the Board. Some calculations are based on smaller subsamples due to missing values on the Compustat Tapes.
*** Significant at $p = 0.01$. ** Significant at $p = 0.05$. * Significant at $p = 0.10$.

level. In the remaining five specifications the estimated parameter is insignificantly different from zero. The results of Pi and Timme (1993) are not confirmed in our sample.

3.4. Event study

Previous studies argue that firms with dual leadership have systematically higher cash flows than firms with unitary leadership structures. If this argument is correct, then under the following conditions, the stock market would be expected to react positively to firms that split the titles and negatively to firms that combine the titles: (1) the market thinks that dual titles are associated with systematically higher cash flows, (2) the market does not perfectly anticipate the announcement of the leadership change, and (3) the board's decision to change the leadership structure does not reveal offsetting information that causes the stock-price to move in the opposite direction (for example, a board might only split the titles when it has private information that the firm is in serious financial trouble).

In this section, we provide evidence on this prediction by examining the stock-market reactions to changes in leadership structure. It is important to note that tests of this prediction are tests of the joint hypothesis about the effects of leadership structure on cash flows and the assumed information structure. Rejecting this joint hypothesis either implies that split titles do not have systematically higher cash flows and/or that one or more of the three conditions listed above are not met. This problem arises in interpreting the results of most event studies. Nevertheless, the stock-market reactions to these events are interesting to document [28].

3.4.1. Sample

To collect a sample of firms that announce changes in leadership structure, we conduct a key-word search of the Dow Jones News Retrieval Service over the period 1984–1991. Initially, we select any *Wall Street Journal* article containing the words 'chief executive officer' and 'chairman' and a verb such as 'choose, appoint, name or select'. This search yielded over 2,000 articles. A firm is included in the sample if it changes its leadership structure from dual to unitary or the reverse and is listed on the CRSP tape (which contains the stock-return data). Our final sample consists of 264 firms — 102 firms announce they are splitting the CEO and chairman titles (the positions were formerly held by one person) and 162 firms announce they are giving one individual both titles.

[28] In a contemporaneous paper, Baliga et al. (1996) present similar event-study evidence. Our analysis differs from their analysis in three significant ways. First, our sample size is much larger. Second, we conduct a more detailed analysis of subsamples containing different types of leadership changes. Finally, we examine both our total sample of events, as well as subsamples that are purged of other contemporaneous new announcements. Baliga et al. restrict their attention to their total sample.

3.4.2. Statistical tests

We focus our analysis on the stock-market return over the two-day period during which the plan to change leadership structure becomes public. The announcement period consists of the date that the financial press reports the change in leadership structure (day 0) and the prior trading day (day −1). Accordingly, CRSP returns data are collected for the day of the WSJ announcement, the day before, as well as over a prior benchmark estimation period. Benchmark returns are computed over the period $t = -190$ to $t = -21$ using the standard market model and the CRSP equally-weighted index with dividends. Unless otherwise indicated, we conduct statistical tests using standardized prediction errors. Refer to the appendix in Dodd and Warner (1983) for details on calculating standardized prediction errors and the associated Z-statistics.

For each announcement of a change in leadership structure, we check the Wall Street Journal Index for potentially-confounding news items. A potentially-confounding news item is any story appearing during the two-day event window in the *Wall Street Journal* that contains news unrelated to the change in leadership structure. Examples of such news items in our sample include, but are not limited to, dividend announcements, earnings announcements, merger news, tender offers, restructuring, stock splits, recapitalization and LBOs, spin-offs, earnings and sales forecasts, new product announcements, charter amendments to prevent takeovers, internal disputes, general strife, and increases in authorized common shares. Of the 102 announcements of splitting the positions, 61 have no associated potentially-confounding news announcement, and of the 162 announcements of combining the positions, 118 are 'clean'. We perform all tests for both the total and clean subsamples.

3.4.3. Splitting, the Titles

Table 11 presents the results for those firms announcing a title split. The most common event, about three-quarters of the announcements, is a split where the chairman keeps the chair but appoints a new CEO [29]. The other two general items of announcements are less common. Appointing a new chairman but keeping the same CEO occurs only five times, while appointing two new people occurs 21 times in the sample of 102. In the relatively routine case of the chairman keeping the chair but appointing a new CEO, the average age of the chairman is 63.5 years, suggesting retirement is near. In contrast, for less-routine title-splitting events, the average age of the chairman is 54.4 years, which is significantly lower at the one percent level. For the full sample, the two-day announcement-period

[29] One example is "Charles R. Shoemate, pedant of CPC International Inc. was elected to the added post of chief executive officer, succeeding James R. Eiszner, who will continue as chairman of the board. Mr. Eiszner, who is 62 years old and has been undergoing cancer treatment, said the change is part of the food product company's 'succession plan and is being made at this time to continue the orderly transition of the company's leadership'". (WSJ, 8/30/90, p. B8.)

Table 11
Two-day announcement-period abnormal returns (CAR) for a sample of firms announcing that they were splitting the positions of chairman of the board and chief executive officer (sample period: 1984–1991).

	Sample size	Average CAR (%)	Z-statistic	Median CAR (%)	% positive
Full sample					
All observations	102	0.72	−1.30	0.04	50.00
Same chairman and new CEO	76	1.00	−0.90	0.20	53.94
New chairman and same CEO	5	−1.14	0.15	−1.65	20.00
New Chairman and new CEO	21	0.14	−1.23	−0.69	42.86
Clean subsample					
All observations	61	−0.71	−2.75 * *	−0.22	47.54
Same chairman and new CEO	47	−0.75	−2.31 * *	−0.22	48.94
New chairman and same CEO	2	−6.29	−2.16 * *	−6.29	00.00
New Chairman and new CEO	12	0.41	−0.75	0.04	50.00

* * Significant at $p = 0.05$.

returns for the entire sample and for each of the three subsamples are not significantly different from zero. This evidence suggest that announcements of moves from unitary to dual leadership do not systematically affect shareholder wealth.

In contrast, in the clean subsample the announcement of splitting the positions appears to be associated with a negative market reaction that is statistically-significant based on the parametric test. These results are not consistent with the conventional wisdom that splitting the positions will generate improved performance. The sample sizes, however, are substantially smaller than in the full sample, so we perform both the Fisher sign test (for the proportion of returns greater than zero) and the Wilcoxon signed-rank test (for medians). None of the nonparametric tests rejects the null hypothesis of zero abnormal returns.

3.4.4. Combining the titles

Table 12 presents the results for the 162 firms announcing the combining of the titles. The most common type of announcement (83% of the cases) is that the CEO is adding the position of chairman of the board [30]. Thus, as in the case of splitting the positions, the distribution of the events suggests the Vancil relay pattern. The average CAR for the entire sample is not significantly different from zero, though

[30] One example is "Thomas W. Field, Jr., 54-year old president and chief executive officer, was named the additional post of chairman succeeding Neil A. Harlan, 67, who remains a director". (WSJ, 7/28/88.)

Table 12
Two-day announcement-period abnormal returns (CAR) for a sample of firms announcing that they were giving the positions of chairman of the board and chief executive officer to one person. Previously the positions were held by two individuals (sample period: 1984–1991).

	Sample size	Average CAR (%)	Z-statistic	Median CAR (%)	% positive
Full sample					
All observations	162	0.14	0.45	−0.01	50.00
CEO adds chair title	134	0.27	0.73	0.10	51.49
Chair adds title of CEO	18	−2.08	−2.20'	−1.16	38.89
New person assumes both titles (formerly held by two people)	10	2.43	2.08*	0.67	50.00
Clean subsample					
All observations	118	0.24	0.28	−0.24	46.61
CEO adds chair title	98	0.20	−0.03	−0.25	46.94
Chair adds title of CEO	12	−1.23	−0.89	−0.78	41.67
New person assumes both titles (formerly held by two people)	8	2.87	2.28*	1.10	50.00

** Significant at $p = 0.05$.

the CAR is significant, on the basis of the parametric test, for two subsamples. First, for the 10 cases in which a new person assumed both positions, the average CAR is a significantly positive 2.43% ($Z = 2.08$, $p = 0.038$). This result is confirmed in the clean subsample ($Z = 2.28$, $p = 0.023$). Second, for the 17 announcements where the chairman takes the title of CEO, the average CAR is a significant −2.08% ($Z = -2.20$, $p = 0.028$). This subsample corresponds to the case where the CEO 'drops the baton' and the former CEO takes back the CEO title. One explanation for this negative return is that the announcement conveys negative information to the stock market about the board's assessment of the future prospects for the firm. Another explanation is that the market views the event as a power play by an old and outdated CEO to regain power (see Sonnenfeld (1988)). Note, however, that in both the full and clean samples none of the nonparametric tests rejects the null hypothesis of zero abnormal returns.

In comparison to the case where the titles are combined by the CEO also assuming the chairman position, one might expect the 'take-back' cases to be associated with relatively poor prior performance. To some extent, this prediction is confirmed in the data. We calculated market performance over the fiscal year prior to the fiscal year in which the announcement took place for each firm that combined the positions either by the CEO assuming the chairman position or by the chairman taking back the CEO position. When the CEO assumes the chairman position prior market return was 11.23% on average, while in the take-back subsample mean prior market return was −13.59%. These figures differ significantly at the ten percent level ($p = 0.083$).

3.4.5. Anticipation effects

Overall, our results suggest that announcements of changes in leadership structure do not have systematic effects on shareholder wealth. While some of the parametric tests are significant, the results tend to be driven by outliers. In any case, the results do not appear to not support the claims of reformers that dual leadership results in higher cash flows — if anything, the results suggest the opposite. One possible explanation for not finding stronger stock-market reactions, however, is that the events in our sample are well-anticipated by the stock market and therefore do not affect the stock price even though the events are important (recall the three conditions in our joint hypothesis). To address this issue, we examine two specific subsamples in which the market is unlikely to completely anticipate the joining of the tides: (1) the CEO is appointed to a chair position that has been vacant for at least one year; and (2) the CEO is appointed to the chair position that was previously held by a person whose age is less than 59 years (i.e., someone who is not obviously near to retirement). For the first subsample, the average and median abnormal returns are both −0.08%. For the second subsample, the mean and median are 0.83% and 0.85%. None of these returns is significantly different from zero.

3.4.6. Secondary information effects

It is important to note that changes in leadership structure might convey information to the market about cash flows even if the structure itself does not affect performance. For example, boards might announce leadership changes when they have private information about the firm's investment opportunities or future cash flows. In this case, the market might react to changes in leadership structure because it implies this information. The potential for these types of secondary information effects confounds the interpretation of our results. For example, it is possible that leadership changes affect shareholder wealth. However, we are unable to detect these effects in the data because they are systematically offset by other information effects. Given this possibility, we view our evidence as providing only tentative support for the hypothesis that shareholder wealth is unaffected when the typical firm changes its leadership structure.

4. Conclusions

A common view on corporate leadership structure, among regulators, financial reporters and certain academics, can be described as follows: (1) It is obviously better to split the titles of CEO and Chairman than to combine them. (2) About 20–25% of U.S. firms have separate titles and the frequency of split titles might be increasing. (3) Firms with split titles outperform firms with combined titles. (4) Firms with combined titles would increase their values by separating the titles. This paper provides arguments and evidence that challenge this conventional wisdom.

First, we discuss some costs of separating the titles that have been overlooked by proponents of dual leadership. These costs include agency costs of controlling the behavior of the chairman, information costs, costs of having firms change their succession processes, and other costs (such as inconsistent decision making with shared authority). Thus, in contrast, to the conventional arguments, it is not theoretically obvious which leadership structure is best. Indeed, the optimal structure is likely to vary according to the economic circumstances facing the firm.

Our empirical analysis provides new evidence on the characteristics and effects of leadership structures of large U.S. firms. First, we find that almost no major firm in the U.S. in 1988 had an independent outsider as chairman. Rather, in almost all cases the chairman is either the former or current CEO or a person with special ties to the firm. These data suggest that cross-sectional statistics on leadership structure are likely to overstate differences in the leadership structures across firms. Rather, it is relatively common for many firms to split the titles during periods of CEO transitions. However, most of these firms revert back to a unitary structure over time. This finding confounds the interpretation of studies that compare the performance of firms with different leadership structures.

Second, we find that when firms separate the titles, the chairmen are almost always people with detailed knowledge of the company and relatively high stock ownership. In fact, the few chairmen who are not former officers of the company tend to own more stock than the CEO and have longer affiliations with the firm. This observation is consistent with the hypothesis that the potential agency and information costs associated with separate titles are important determinants of leadership structure — the titles are separated only when these information and agency costs are low.

Third, we find that a significant number of firms use the titles of chairman, CEO and president as part of their succession plans for CEOs. A common practice is what Vancil (1987) calls, in reference to a relay race, 'passing the baton.' Our evidence suggests that firms, which use this process, employ the title of chairman as a reward for CEOs who perform well during a probationary period. In contrast, we find little evidence that combining the positions results in managerial entrenchment. The widespread use of the passing-of-the-baton succession process suggests that a regulatory requirement to have separate titles would force many firms to develop different transition patterns and incentive schemes for top management.

Fourth, in contrast to previous studies, we find no evidence that unitary leadership structure is associated with inferior accounting and market returns. If anything, the opposite is the case. In addition, we find that changes in leadership structures have no systematic effects on stock-prices. If anything, the evidence suggests that dual leadership is associated with systematically lower cash flows and value — not higher cash flows and value, as reformers claim.

We tentatively advance the argument that the widespread practice of combining the titles of CEO and chairman is indeed efficient and generally consistent with shareholders' interests for the typical large U.S. company and that legislative

reforms forcing separate titles are misguided. Clearly, however, more detailed estimates of the costs and benefits of alternative leadership structures are required before more definitive conclusions can be reached.

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