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Author(s): James M. Mahoney and Joseph T. Mahoney

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AN EMPIRICAL INVESTIGATION OF THE EFFECT OF CORPORATE CHARTER ANTITAKEOVER AMENDMENTS ON STOCKHOLDER WEALTH

JAMES M. MAHONEY

Wharton School of Business, University of Pennsylvania, Philadelphia, Pennsylvania, U.S.A.

JOSEPH T. MAHONEY

College of Commerce and Business Administration, University of Illinois, Champaign, Illinois, U.S.A.

This paper tests competing theoretical explanations for the passage of corporate charter antitakeover amendments. The managerial entrenchment hypothesis suggests that antitakeover amendments are adopted by incumbent management to obtain job security at stockholders' expense. An alternative hypothesis is that antitakeover amendments are proposed in order to enable the management of the target firm to extract a higher price from the bidding firm and thereby benefit stockholders. Our event study from a sample of 409 firms that adopted antitakeover amendments in the 1974–88 period indicates a strongly negative effect on stockholder wealth, in support of the managerial entrenchment hypothesis that antitakeover amendments are adopted by managers at the expense of stockholders.

INTRODUCTION

The corporate governance literature is becoming increasingly concerned with the design and implementation of strategies to reduce the agency costs of the separation of ownership from control (Pearce and Zahra, 1991; Walsh and Seward, 1990). One stream of literature considers top management teams and performance (Hambrick and Mason, 1984; Norburn and Birley, 1988). Zahra and Pearce (1989) provide a synthesis of an agency theory model linking board variables and company performance. Several papers have examined empirically the relationship between CEO compensation and organizational perform-

ance using a combined agency and organizational approach (Balkin and Gomez-Mejia, 1990; Finkelstein and Hambrick, 1988, 1989; Kerr and Bettis, 1987; Tosi and Gomez-Mejia, 1989; Zajac, 1990). Recent research has also examined strategic actions (e.g., antitakeover amendments) where the board plays an active role in decision making and where a conflict between corporate management and stockholders may arise (Baysinger, Kosnik and Turk, 1991; Kosnik, 1987; Singh and Harianto, 1989a).

The segment of the governance literature that has considered antitakeover amendments tends to assume that these amendments have negative stockholder wealth effects (Kesner and Dalton, 1985) and then attempts to explain and predict under what conditions such amendments are passed. It is important, however, to examine empirically this fundamental premise of the

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governance literature. Is it the case that antitakeover amendments are detrimental to stockholders? Some theoretical and empirical research in the finance literature has raised doubts concerning the negative stockholder wealth effect of antitakeover amendments. Our empirical investigation tests whether an important premise of the governance literature is well founded (i.e., whether there is a negative stockholder wealth effect of corporate charter antitakeover amendments).

Several mechanisms which influence the transfer of managerial control are now a research focus of finance and business scholars. These mechanisms include dual-class recapitalizations (DeAngelo and DeAngelo, 1985; Lehn, Netter, and Poulsen, 1990; Partch, 1987), greenmail (Bradley and Wakeman, 1983; Dann and DeAngelo, 1983; Kosnik, 1987, 1990; Shleifer and Vishny, 1986b), golden parachutes (Cochran, Wood, and Jones, 1985; Knoeber, 1986; Lambert and Larcker, 1985; Singh and Harianto, 1989a, 1989b), poison pills (Davis, 1991; Malatesta and Walkling, 1988; Ryngaert, 1988) and antitakeover amendments (Jarrell and Poulsen, 1987; Sundaramurthy, 1992; Walsh and Seward, 1990). This study concentrates on corporate charter antitakeover amendments and is motivated by the considerable controversy that surrounds the use of antitakeover amendments by United States corporations at the federal, state, and individual firm level (Jahera and Pugh, 1991; Margotta, McWilliams, and McWilliams, 1990; Ryngaert and Netter, 1990). Antitakeover amendments are often the most debated issues on the agendas of annual stockholder meetings (Pound, 1985).

Antitakeover amendments are intended to restrict the transfer of managerial control (Easterbrook and Fischel, 1981). The effect of this restriction, however, is both theoretically and empirically ambiguous. The study of the effect of antitakeover amendments on stockholder wealth has produced mixed empirical evidence. DeAngelo and Rice (1983) found essentially no effect of antitakeover amendments on stock price (stockholder wealth). Linn and McConnell (1983) found a weak positive effect of antitakeover amendments on stockholder wealth. Jarrell and Poulsen (1987), however, found a strong negative effect of antitakeover amendments on stock price. The considerable debate concerning the stockholder wealth effects of antitakeover amend-

ments motivates our empirical research. We consider a larger sample of firms that have adopted supermajority and classified board amendments than any previous study and we analyze these amendments over a longer time period (i.e., 1974–88) than any previous study.

We consider competing theoretical explanations for the passage of antitakeover amendments derived from the agency theory literature (Alchian and Demsetz, 1972; Eisenhardt, 1989). The *managerial entrenchment hypothesis* posits risk averse managers who desire a reduction in employment risk (Amihud and Lev, 1981) and/or want to preserve above-market compensation levels. Managerial preferences diverge from stockholders' preferences, and antitakeover amendments are viewed as protecting inefficient and/or opportunistic managers at the stockholders' expense. An alternative *stockholder interests hypothesis* suggests that antitakeover amendments serve stockholders by strengthening the position of incumbent management in dealing with corporate acquirers whose primary objective is to acquire the assets of the target firm at an unreasonably low price.

Our empirical focus is the effect of the announcement of new information related to the proposal of antitakeover amendments on the wealth of stockholders. In particular, we concentrate on the stockholder wealth effects of supermajority amendments and classified (staggered) boards. Supermajority amendments and classified boards are *nonoperating* defensive measures¹ and require stockholder approval (Walsh and Seward, 1990) (see Table 1). These corporate charter amendments involve no direct effect on share price paid by potential acquirers (as do fair price amendments) and involve no obvious direct wealth transfers to other stakeholders (as do 'poison pills').

In addition to a direct transfer of wealth from stockholders to management, a possible signaling effect may have an additional stock price impact (Szewczyk and Tsetsekos, 1990). If the market interprets the antitakeover amendment as an indication of a management which is overly

¹ A nonoperating defensive measure does not necessarily directly affect the asset and/or liability structure of the firm (i.e., the balance sheet), but nevertheless affects the probability of a successful takeover attempt (Walsh and Seward, 1990).

Table 1. Antitakeover defenses

	Operating	Nonoperating
	1	3
Stockholder approval required	Example: Dual-class recapitalizations	Supermajority amendments and Classified board amendments
	2	4
No stockholder approval required	Example: Poison pills	Example: Golden parachutes

Mechanisms intended to restrict transfer of managerial control (adapted from Walsh and Seward, 1990, p. 438). This paper focuses on amendments in cell 3.

concerned with protecting its own employment position, stock prices may reflect an extrapolation of current actions indicative of opportunistic managers. If the market interprets the antitakeover amendment as managerial behavior consistent with the long-term interests of the firm, the stock price may reflect an additional positive impact of indications of a responsible management.

Supermajority and classified board provisions almost always require the approval of a majority vote by stockholders.² Supermajority merger approval provisions typically stipulate stockholder approval percentages in the 66 percent to 80 percent range. Various supermajority stockholder approval requirements may block a bidder from implementing a merger even when the bidder controls the target's board of directors. Supermajority amendments also typically include escape clauses. For example, they are usually not applicable to mergers with a firm's subsidiary. If the board is able to determine when and if the supermajority provisions will be in effect, the amendment is said to have a board-out clause.

Classified board provisions segment (or stagger) the board of directors into classes with one class standing for election each year. Typically, with a classified board provision, one-third of the board is elected each year for a 3-year term. With a classified board, a new majority stockholder would have to wait for two annual

meetings to attain majority representation on the board before being guaranteed a successful proposal of a merger for stockholder vote. Amendments to classify the board are often accompanied by an amendment specifying that supermajority approval by stockholders is necessary to change the number of directors. The supermajority provision inhibits a bidder from expanding the board and thus taking control of the board by electing candidates to the newly created positions. Now let us consider these two corporate charter amendments in relation to the agency literature.

THE MANAGERIAL ENTRENCHMENT HYPOTHESIS

According to the managerial entrenchment view, the separation of ownership and control allows entrenched managers a wide range of discretion (Berle and Means, 1932) including shirking (Jensen and Meckling, 1976), top management featherbedding (Myers, 1983), taking fewer investment risks (Morck, Shleifer, and Vishny, 1989) and maintaining short time horizons, each of which results in a present-value loss for the firm (Hayes and Wheelwright, 1984; Jensen and Meckling, 1979). The managerial entrenchment hypothesis suggests that top management proposes and supports antitakeover amendments as a pre-tender offer defensive tactic to reduce employment risk and to insulate themselves from competition in the takeover market (Kesner and Dalton, 1985). It is posited that defensive tactics reduce the search for targets (Schwartz, 1989). A further inefficiency may result when firms decrease research and development intensity after the adoption of antitakeover amendments (Meulbroek, *et al.*, 1990).³

To be sure, many 'institutions of capitalism' (Williamson, 1985) mitigate the agency problem of the separation of ownership and control including: (1) the market for corporate control (Jensen and Ruback, 1983; Manne, 1965); (2) competitive forces in the product market (Williamson, 1964); (3) outside boards of directors who effectively monitor top management

² An interesting question is put forth by Cary (1969): May a mere majority of the stockholders institute a supermajority requirement?

³ Mallette's (1991) results fail to indicate the existence of a general effect of antitakeover amendments on long-term investment.

and limit its opportunism (Baysinger and Butler, 1985b; Baysinger and Hoskisson, 1990; Fama and Jensen, 1983a, 1983b; Friedman and Singh, 1989; Hermalin and Weisbach, 1988; Mizruchi, 1983); (4) independent CEO, chairperson of the board of directors structure (Rechner and Dalton, 1991); (5) compensation plans based on performance (Agrawal and Mandelker, 1987; Brickley, Bhagat and Lease, 1985; Coughlan and Schmidt, 1985; Eaton and Rosen, 1983; Gomez-Mejia, Tosi and Hinkin, 1987; Murphy, 1985; Walkling and Long, 1984); (6) equity ownership by management (Jensen and Meckling, 1976; Knoeber, 1986; McWilliams, 1990); (7) the external managerial labor market and the so-called 'exit post setting-up mechanism' (Fama, 1980); (8) internal labor markets and the multidivisional internal capital market (Williamson, 1970); (9) concentrated ownership (Agrawal and Mandelker, 1990; Demsetz and Lehn, 1985; Hill and Snell, 1989; Shleifer and Vishny, 1986a); (10) increased monitoring by institutional investors (Brickley, Lease, and Smith, 1988; Graves and Waddock, 1990; Hill and Hansen, 1989; Oviatt, 1988); (11) choice of financial structure, including debt (Jensen, 1986) and dividend policy (Easterbrook, 1984) in order to decrease managerial discretion of 'free cash flows'; and (12) corporate culture (Barney, 1986).

Those who hold the managerial discretion view do not deny that mechanisms have evolved which lessen the problem of the separation of ownership and control (Walsh and Seward, 1990). The major claims which are made by supporters of the managerial entrenchment hypothesis are the following: (1) all of the institutions of capitalism listed above attenuate but do not eliminate managerial discretion (Williamson, 1964, 1985); (2) reducing the effectiveness of the market for corporate control exacerbates the agency problem of the separation of ownership and control (Easterbrook and Fischel, 1981); and (3) uninformed stockholders may be in the majority, in which case rationally ignorant stockholders may vote to establish amendments which are not in their best interest (Jarrell and Poulson, 1987).⁴

⁴ Stockholders in widely held corporations are rationally ignorant if they do not have an economic incentive to study closely every decision which is put to a stockholder vote. If, on average, the management's recommendations lead to an increase in stockholder wealth, the stockholder with small holdings has little incentive to monitor individual managerial

Thus, managers are posited as exercising managerial discretion at the expense of stockholders since disciplinary mechanisms are not perfect. The organization's managers are able to balance commitments to various 'stakeholders,' to buffer the organization by maintaining slack resources, and to serve the interests of the organization as a 'going concern' (Commons, 1934) even if these actions come at the expense of stockholder wealth (March and Simon, 1958; Pfeffer and Salancik, 1978; Thompson, 1967).

THE STOCKHOLDER INTERESTS HYPOTHESIS

The stockholder interests hypothesis posits that the adoption of antitakeover provisions increases current stockholder wealth (Berkovitch, Bradley, and Khanna, 1989; Berkovitch and Khanna, 1990; DeAngelo and Rice, 1983). According to the stockholder interests hypothesis, the top management team (Hambrick, 1989) should adopt antitakeover amendments for two basic reasons. First, the adoption of antitakeover amendments creates, in effect, a long-term contract with the current management team and may encourage long-term investment and investment in firm-specific capital which are in the best interest of stockholders (Baysinger and Butler, 1985a).⁵ Second, antitakeover amendments, by giving target managements additional negotiating leverage or veto power, enable managements to negotiate better deals on average for their stockholders (DeAngelo and Rice, 1983). Target firm stockholders may maximize their takeover-related synergy gains by both adopting antitakeover measures and awarding the management a golden parachute of the optimal size (Harris, 1990).

In the full information case where the gains of merger are attainable through merger with a potentially large number of bidding firms, antitakeover amendments are superfluous. The

decisions. Problems may also be caused by federal and state laws governing proxy solicitation and proxy voting that make outside stockholder opposition to management particularly difficult (Pound, 1989).

⁵ Pugh, Page and Jahera (1992) provide empirical support that upon passage of antitakeover amendments, managers adopt a longer-term view with respect to capital expenditure and research and development.

target firm will already be able to appropriate the full gains between the bidding firm and target firm in the bidding process without additional safeguards such as antitakeover amendments (Bradley, 1980). Thus, the stockholder interests hypothesis implicitly posits *asymmetric information* and/or a *private synergy* between the target firm and bidding firm (Barney, 1988).

First, consider the case of asymmetric information. Suppose the current stock price, P_{LOW} (\$80), is common knowledge. Suppose further that the target stockholders have a knowledge of the distribution of the possible ex post stock price, but only the bidding firm (due to, for instance, its specialized knowledge of the industry or its effective research) knows the true ex post price of the target firm, P_{HIGH} (\$90). In this case, a particular bid (say, $P_{\text{BID}} = \$85$) will induce a certain percentage of the stockholders to tender their shares. We expect, of course, that the percentage of stockholders that tender their shares to increase with P_{BID} (i.e., the supply curve of tendered shares is upward sloping in price; see Bagwell (1991)).

In this case of asymmetric information, a supermajority amendment which requires 80 percent stockholder approval rather than a simple majority of 51 percent will result in a higher P_{BID} (say, \$89) for a successful takeover. The maximum share price that the bidding firm would offer is P_{HIGH} (\$90). A successful takeover will surely make the target firm's stockholders better off under a supermajority scenario relative to a simple majority, *given that a takeover occurs*. However, the supermajority amendment also increases the likelihood that the takeover will not take place and the target firm's shares will continue to sell for P_{LOW} . Therefore, in order to determine the optimal level of majority requirement for merger approval, an increase in the bid price when the takeover is successful must be weighted against a decrease in the probability of a successful takeover.

Next, consider the case of a private synergy between the bidding firm and the target firm due to economies of scope in production (Baumol, Panzar, and Willig, 1982), market power (Eckbo, 1983) or informational economies (Bradley, Desai and Kim, 1983, 1988) which cannot be readily achieved by contractual exchange (Williamson, 1975). A private synergy obtains when the value of the target firm to the bidding firm is greater

than the value of the target firm to any other bidder. The target firm wants to extract as much of the synergistic gain as possible in this bilateral monopoly situation with the bidding firm. However, the individual stockholders find that acting as a cartel is difficult due to the incentive to cheat. As DeAngelo and Rice (1983) point out, in the case of a widely held firm, property rights (Alchian, 1965) are not perfectly defined since any coalition of 51 percent of the target stockholders can transfer voting control to the bidder. An inefficient 'rush' (from the target stockholders' point of view) by individual stockholders to tender at the currently offered control premium may result. A possibly effective way to counteract this inefficiency is to force the bidding firm to deal directly with the board of directors of the target firm. The target firm's board should be able to collude more effectively and at a lower cost than could individual stockholders. Thus, antitakeover amendments such as classified board provisions force the bidding firm to deal with a small, cohesive group which may result in the extraction from the bidding firm of a larger percentage of the bilateral monopoly gains.

The private synergistic value is analogous to the Klein-Crawford-Alchian (1978) notion of *quasi-rent*. The target firm, of course, wants to appropriate as much of the quasi-rent as possible in this bilateral monopoly case. Antitakeover amendments may serve the rent-appropriation objective for the target firm (Grossman and Hart, 1980). The target stockholders potentially benefit from contractual mechanisms which enforce a 'stockholder cartel' in which the individual stockholder is encouraged to hold-out for a higher tender price, approaching the bidder's maximum valuation of the target (DeAngelo and Rice, 1983). The antitakeover amendment is viewed as an institutional response to a free-rider problem associated with tender bids. Thus, antitakeover amendments which enable the target firm's stockholders to appropriate a greater share of the synergistic gains can be viewed as a special case of the insights of Schelling (1960) and Jensen and Meckling (1976) that voluntarily agreed upon constraints can often benefit the constrained in corporate contracting.

Supermajority provisions, as illustrated above, increase the number of shares needed for stockholder approval of a merger proposal. Supermajority provisions reduce the probability

of losing the control premium (the difference between the tender offer price and the expected share value of the target firm following a successful offer) and therefore increase the incentives of the individual stockholder to hold out for a higher offer. Antitakeover amendments help to force once-diffuse target stockholders to respond in unison to takeover bids, and thereby to capture a larger share of the economic gains from the prospective merger.

The stockholder interests hypothesis predicts that antitakeover amendments are adopted because they benefit stockholders on net. Thus, the value to stockholders of an increased ability to extract quasi-rents from bidders outweighs any additional costs which may include a lower probability of merger or increased transaction costs such as legal fees to effect a merger.

EMPIRICAL ANALYSIS

The efficient capital market theory provides a framework for the empirical testing of our competing hypotheses (Bettis, 1983). We study stock price changes at the publication of news items relating to antitakeover amendments. Methodologies based on the market model using ordinary least squares (OLS) and using standard parametric tests are well-specified under a variety of conditions for daily stock return data (Brown and Warner, 1980, 1985) and are utilized here.

The managerial entrenchment and stockholder interests hypotheses differ in the predicted stock price impact of an antitakeover provision. The managerial entrenchment hypothesis suggests a negative impact as wealth is diverted from stockholders to management as opportunistic and/or less efficient managers protect their jobs. In contrast, the stockholder interests hypothesis suggests that equity value will increase to capitalize the larger expected quasi-rent from the idiosyncratic synergy gains. The managerial entrenchment and stockholder interests theories are empirically tested by considering the equity value impact at the time of the antitakeover amendment proposal. The proxy statement mailing date is utilized as the best available estimate of the date of the first public announcement of antitakeover amendment consideration.

Our sample of firms proposing antitakeover amendments is derived from several sources: (1)

DeAngelo and Rice (1983); (2) the Securities and Exchange Commission (1985); and (3) the Investor Responsibility Research Center (Rosenbaum, 1987, 1989). Our sample includes 409 firms adopting supermajority and classified board amendments for the 1974–88 period. One hundred firms were dropped from our initial sample because of contaminating events where the stockholders' meetings contained matters other than antitakeover charter amendments. Another 31 firms were dropped because of data problems (e.g., insufficient data in the prediction period). This large sample of 409 firms should reduce the level of statistical noise in measuring stock returns. The security market rates of return utilized in testing were taken from the CRSP (Center for Research in Security Prices, University of Chicago) daily file for firms listed on the New York Stock Exchange, the American Stock Exchange and the National Association of Security Dealers.

We expect any resulting changes in stock prices, due to the *perceived* effect of antitakeover amendments, to occur immediately around the proxy mailing date. We chose an event window of 50 days before the proxy mailing date (–50) to 10 days following the proxy mailing date (+10). An average of 27 trading days (and a median of 24) separates the board meeting date (when an amendment is passed) from the proxy mailing date (Linn and McConnell, 1983). Although it is against SEC rules to solicit actively votes before the proxy mailing date, the possibility remains that the board decision to adopt antitakeover amendments is leaked to some market participants. The market returns in the –40 to –20 interval roughly surround the board meeting date. We chose 50 days before the proxy mailing date to ensure the inclusion of the board meeting date. We chose 10 days after the proxy mailing date as a sufficient time period for the market to react fully to the antitakeover amendment provisions.

The statistical tests presented below consider the estimation of the market-price impact associated with public announcement of proposed antitakeover amendments. We utilize capital market residual analysis techniques (Fama, *et al.*, 1969). If we assume that security returns have a multivariate normal distribution, a single factor model consistent with the capital asset pricing model (Lintner, 1965; Sharpe 1964) can be

formulated for time-event studies. Therefore, the statistical tests described below entail a joint hypothesis of market efficiency, the capital asset pricing model, and the effects of antitakeover amendments.

Specifically, the market model is assumed to be a valid representation of the stochastic process which generates returns for security j in time period t :

$$\tilde{R}_{jt} = \alpha_j + \beta_j \tilde{R}_{mt} + \tilde{\epsilon}_{jt} \quad (1)$$

where

\tilde{R}_{jt} = stochastic return on security j over time period t

\tilde{R}_{mt} = stochastic return on a market portfolio of common stocks over time period t , and

$\tilde{\epsilon}_{jt}$ = disturbance term for security j at time period t which is assumed to be normally distributed with zero mean, serially uncorrelated and has constant variance over time.

According to the market model, each security's period t return is expressed as a linear function of the corresponding time period's return on the market portfolio plus a random error term which reflects security specific effects.

The market model is implemented by computing ex-post abnormal returns for each security as

$$AR_{jt} = R_{jt} - (\hat{\alpha}_j + \hat{\beta}_j R_{mt}) \quad (2)$$

where R_{jt} and R_{mt} are the observed returns for security j and the market portfolio, respectively, in time period t relative to the event date of interest.

The security specific parameters $\hat{\alpha}_j$ and $\hat{\beta}_j$ are estimated over a period of 110 days (–160 to –51) preceding the event date (Linn and McConnell, 1983). To reduce the impact of random estimation errors, portfolios are formed in event time such that each daily abnormal return is an equally weighted average of individual securities' abnormal returns for that common event date,

$$\overline{AR}_t = \sum_{j=1}^N AR_{jt}/N,$$

where N is the number of securities in the

portfolio on event date t . Cumulative average abnormal returns are computed as:

$$CAR_t = \sum_{k=-50}^t \overline{AR}_k,$$

where $t = -50$ through $+10$.

To determine the statistical significance of the average abnormal returns, we employed a parametric mean test as described in Linn and McConnell (1983). The statistic used to test the null hypothesis is computed as:

$$Z = \overline{AR}_t / S(\overline{AR}), \quad (3)$$

where $\overline{AR}_t = 1/N (\sum_{j=1}^N \hat{AR}_{jt})$

$$S(\overline{AR}) = (T-2/(N(T-4)))^{1/2}$$

and $\hat{AR}_{jt} = AR_{jt}/S_t(AR_j)$

where

$$S_t(AR_j) = (S_j^2 (1 + 1/T + (R_{mt} - \bar{R}_m)^2 / \sum_{t=1}^T (R_{mt} - \bar{R}_m)^2))^{1/2}$$

and

S_j^2 = residual variance from the ordinary least squares estimation of the market model for security j ,

\bar{R}_m = average return on the market portfolio computed over the same event period used to estimate the market model for security j ,

T = total number of days in the interval used to estimate the market model, and

N = number of securities in the portfolio of interest.

The Z -statistic in (3) is distributed approximately unit normal for large N .

The test statistic of the null hypothesis that the cumulative average residual (CAR) is equal to zero is computed as:

$$Z_t = \overline{CAR}_t / S(\overline{CAR}), \quad (4)$$

where

Table 2. Daily abnormal returns surrounding the event date for the proxy mailing for classified board and supermajority provisions ($N = 409$)

Event date	Average residual	CAR	Event date	Average residual	CAR
-50	-0.0014	-0.0014	-15	-0.0016	-0.0161**
-40	-0.0014	-0.0031	-14	0.0000	-0.0161**
-39	-0.0003	-0.0034	-13	0.0008	-0.0153**
-38	-0.0007	-0.0041	-12	0.0011	-0.0142**
-37	-0.0018	-0.0059*	-11	0.0015	-0.0127**
-36	-0.0014	-0.0074*	-10	0.0010	-0.0117*
-35	-0.0005	-0.0079**	-09	0.0000	-0.0117*
-34	-0.0015	-0.0094**	-08	-0.0004	-0.0121*
-33	-0.0006	-0.0100**	-07	-0.0007	-0.0128*
-32	0.0019	-0.0081**	-06	-0.0001	-0.0129*
-31	-0.0014	-0.0095**	-05	-0.0001	-0.0130*
-30	-0.0001	-0.0096**	-04	-0.0012	-0.0141*
-29	-0.0001	-0.0097**	-03	0.0013	-0.0129*
-28	0.0012	-0.0084**	-02	-0.0012	-0.0141*
-27	0.0000	-0.0084**	-01	-0.0007	-0.0147*
-26	-0.0022*	-0.0106**	00	-0.0012	-0.0159*
-25	-0.0010	-0.0116**	+01	-0.0010	-0.0170*
-24	-0.0002	-0.0118**	+02	-0.0013	-0.0183**
-23	-0.0012	-0.0130**	+03	0.0010	-0.0173*
-22	-0.0017	-0.0147**	+04	0.0018	-0.0155*
-21	0.0003	-0.0144**	+05	0.0000	-0.0155*
-20	0.0002	-0.0142**	+06	-0.0014	-0.0170*
-19	-0.0004	-0.0146**	+07	-0.0013	-0.0183*
-18	-0.0003	-0.0150**	+08	-0.0006	-0.0188*
-17	0.0018	-0.0131**	+09	0.0012	-0.0176*
-16	-0.0014	-0.0145**	+10	0.0016	-0.0160*

*indicates that the average of the standardized residuals is significantly different from zero at the 5% level of significance using a two-tailed test.

**indicates that the average of the standardized residuals is significantly different from zero at the 1% level of significance using a two-tailed test.

$$\overline{\text{CAR}}_t = (1/N \sum_{j=1}^N \widehat{\text{CAR}}_j)$$

$$\widehat{\text{CAR}}_j = (\sum_{t=1}^T \widehat{\text{AR}}_{jt}) / (T)^{1/2}$$

The Z-statistic in (4) is distributed approximately unit normal for large N .

Table 2 presents sample average and cumulative average abnormal rates of return for the event-time surrounding the proxy mailing date for antitakeover amendments. For the event window $(-50, +10)$, the cumulative average abnormal return (CAR) over the 61 day period decreased by 1.6 percent. The decrease in the CAR is significantly different from zero at the

0.05 level (see Figure 1). The result is consistent with the managerial entrenchment hypothesis.⁶

Several methodological issues concerning event studies must be addressed (Brown and Warner, 1985). First, a pre-event period was chosen to estimate the parameters α and β in the market model. These parameters may change due to the event, thus yielding potentially biased and inefficient estimates for the market model. Changes in the parameter values are generally

⁶ Formally, the hypotheses which we are testing are:

H_0 : $\text{CAR}_{10} = 0$ Null hypothesis of no stockholder wealth effect

H_{1A} : $\text{CAR}_{10} > 0$ Supports the stockholder wealth hypothesis

H_{1B} : $\text{CAR}_{10} < 0$ Supports the managerial entrenchment hypothesis

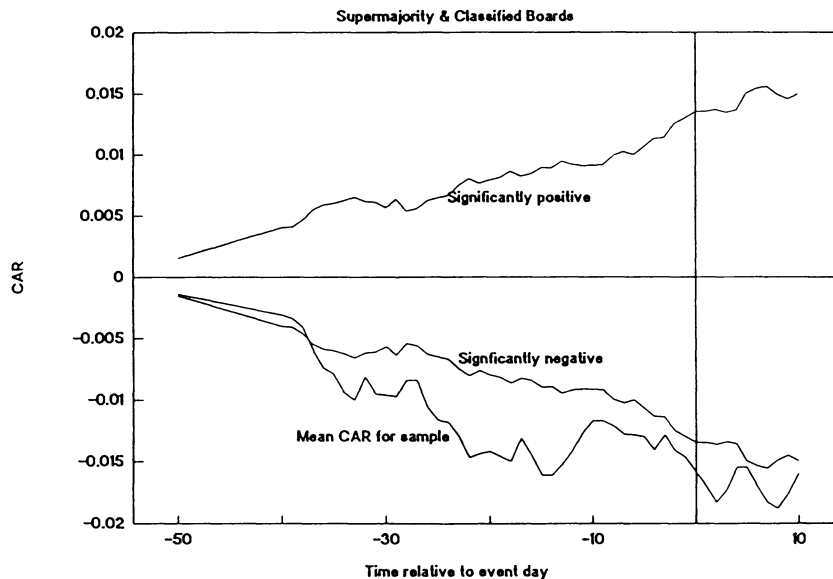


Figure 1. Cumulative average abnormal residual

not a major concern when events are nonoperating, that is, when the events do not change the asset structure (business risk) or the capital structure (financial risk) of a firm. However, two situations may cause pre-event estimates of α and β to be unreliable. First, if rumors about a takeover of the firm circulated before the board meeting date (rumors which may have led to the proposal of the antitakeover amendment), the α 's in the pre-event period may be overestimated due to the positive stock impact of the rumor. Second, if information of the proposal were 'leaked' to some market participants, the α 's may be overestimated or underestimated, depending on the impact of the impending proposal. We therefore replicated our event study test using a postevent estimation period (+11 to +120) in place of our pre-event estimation period (-160 to -51) to estimate α and β , and still found significantly negative CARs, which is consistent with our earlier results supporting the managerial entrenchment hypothesis.

Second, correlation among securities due to clustering of events in calendar time violates the OLS assumption of contemporaneously uncorrelated error terms. In this study, cross-correlation is not viewed as a problem since the event dates are scattered through the years which we study. In addition, the problem of nonsynchronous trading (Scholes and Williams, 1977) was not

considered a major problem due to the long event window.

Third, a consistent choice of market index is needed to interpret properly the results (Brown and Warner, 1985). Thus, the equally-weighted market index was used in order to be consistent with the equal weighting of the firms in the event-study portfolio.

Finally, we tested for increased variance around the event date which would violate the OLS assumption of constant variance and would not allow standard interpretations of the t -tests for significance. We could not reject the hypothesis that the residuals from the OLS regression (1) above had the same variance before and after the event date, implying that constant variance is a reasonable assumption.

The apparent robustness of our results raises questions about the conflicting empirical results referred to in the introduction of this paper. We can reconcile these results if we look at the time frames of these studies. Linn and McConnell (1983) included amendments from 1960 through 1980 and found marginally significant positive CARs. DeAngelo and Rice (1983) studied the period 1974 through 1979 and found no significant impact of antitakeover amendment proposals on stockholder wealth. Finally, Jarrell and Poulsen's (1987) study included amendments from 1980 to 1985 and found significantly negative CARs. This

apparent negative trend over time prompted us to break our sample down by time period as well as by type of amendment.

Table 3 shows the results of the event-study methodology applied to various breakdowns of our 409 firm sample. Table 3A contrasts the pre-1980 results with the post-1980 results. Before 1980, no (statistically or economically) significant returns were associated with the passage of antitakeover amendments. After 1980, the antitakeover amendments were associated with significant negative returns. These results, when viewed in light of previous research, imply that early amendment passages (pre-1975) generally induced positive cumulative average abnormal residuals, mid-period amendment proposals (1975–79) had no general impact on stock prices, and more recent amendments (since 1980) have had significantly negative impacts on stockholder wealth.

One can conjecture reasons for the negative trend over time in the effect of antitakeover amendments. Possible explanations include learning over time by stockholders (i.e., stockholders may update their expectations of the effects of an antitakeover amendment after seeing the effects on firms which have already passed them),⁷

Table 3. Cumulative average abnormal residuals 10 days after the event date (CAR_{10}) for classified board and supermajority provisions broken down by time period and by amendment

Table 3A	Provisions by time period	
	1974–1979	1980–1988
Sample size (N)	93	316
CAR_{10}	–0.0032	–0.0197
$t(CAR_{10})$	–0.3746	–2.1738

Table 3B	Provisions by type	
	Classified board 1980–1988	Supermajority provision 1980–1988
Sample size (N)	192	118
CAR_{10}	–0.0196	–0.0237
$t(CAR_{10})$	–2.333	–0.7206

⁷ As Graves and Waddock note: 'In the computer industry, institutional ownership has grown from 16 percent of common equity in 1976 to almost 50 percent in 1984; in the chemical industry, from 15 percent of equity in 1976 to 52 percent in

an increase in control by institutional investors, changes in the structure of the takeover market⁸ (e.g., a more competitive takeover market would decrease the overall benefits of antitakeover amendments), and changes in the types of management which propose antitakeover amendments (e.g., perhaps early antitakeover amendments were proposed by responsible managers who acted in the best interests of stockholders but more recent amendments have been proposed by self-interested managers who propose the amendments despite the negative share price effect).

Table 3B shows the breakdown of post-1980 antitakeover amendments by type, supermajority or classified board. Each amendment shows similarly negative stock price effects (CAR s of approximately –2 percent), but only the results of the classified board provisions are significantly negative due to the smaller sample size and larger sample variance estimate of the supermajority provisions.

CONCLUSIONS

Our empirical findings support the position of the U.S. Securities and Exchange Commission (1985) and legal scholars such as Easterbrook and Fischel (1981) and Gilson (1981, 1982). Antitakeover amendments are in general contrary to the best interests of the stockholders of the firms that adopt them. Protective responses, while serving the interests of incumbent managements, are dysfunctional from the standpoint of the system as a whole (Williamson, 1975: 160–161).

Our results are particularly strong since the tests are biased against the managerial entrenchment hypothesis. The proposal of antitakeover amend-

1984; and in aerospace, from 10 percent in 1976 to 34 percent in 1984. In 1984 institutional investors held about 60 percent of all shares of U.S. corporations' (1990, p. 76). We thank an anonymous referee for bringing the issue of the change in institutional ownership over our time period to our attention.

⁸ Many changes in the takeover market may have caused antitakeover amendments to have a relatively larger effect on stockholder wealth in the 1980s relative to the 1970s. For example, state antitakeover laws have been largely invalidated since 1982, and antitrust impediments have been reduced for the merger of large firms and between competitors since 1980 (Jarrell and Poulsen, 1987).

ments may provide information, signaling an increased probability that the firm may currently be a takeover target. The signal of a potential bidder to the target stockholders empirically leads to an increase in the stock price. Thus, the significant decline in the stock price around the event date of the antitakeover amendments, despite the positive signaling effect, strengthens our interpretation of the evidence in support of the managerial entrenchment hypothesis.

The observed stock-price reaction to antitakeover amendments has at least three components: a negative component associated with the reduced probability of a successful offer, a positive component associated with a lowering of the costs of negotiating higher-valued offers, and a positive component associated with additional information about managers' expectations of a takeover. Our empirical results indicate that the negative component outweighs the sum of the positive components. Moreover, **the negative stockholder reaction to corporate charter antitakeover amendments appears to have increased over time, thus resolving the mixed empirical evidence reported in previous articles.**

Thus, we reject the notion that takeovers play only a minor role in disciplining managers and that efficient labor markets are sufficient to solve the problem of the separation of ownership and control. The market reacts negatively when disciplining mechanisms placed on managers are circumvented by those same managers.

We find unpersuasive the argument that since stockholders freely choose to vote in favor of antitakeover amendments they must be perceived as positive by stockholders. Jarrell and Poulsen (1987) show that firms passing supermajority amendments have relatively low institutional stockholdings (averaging 19 percent) and high insider holdings (averaging 18 percent), which we interpret as helping to explain how these amendments received voting approval despite their harmful wealth effects. Although higher insider holdings suggest greater financial interests to protect, managers also have employment concerns as well. Thus, inside holders may trade-off wealth accumulation for greater corporate control (Brickley, Lease and Smith, 1988; Fortier, 1989). Furthermore, many institutional investors depart from their customary adherence to the 'Wall Street Rule' (i.e., vote with management or sell your shares) and vote against antitakeover

amendments (Brickley *et al.*, 1988; Easterbrook and Fischel, 1983).

Finally, it is important to note that although we found a negative average impact, this does not preclude the possibility that some firms-antitakeover amendments actually benefit stockholders. Our test is properly interpreted as providing evidence concerning the average effect of antitakeover amendment proposals on stockholder wealth. With this important caveat clearly in mind, we have been persuaded by the empirical evidence that antitakeover amendments are generally detrimental to stockholders.

Tender offers and hostile takeovers are primary market mechanisms which encourage efficient management and competitive firms. Antitakeover amendments subvert competition in the market for corporate control.⁹

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REFERENCES

- Agrawal, A. and G. N. Mandelker. 'Managerial incentives and corporate investment and financing decisions', *Journal of Finance*, **42**, 1987, pp. 823-837.
- Agrawal, A. and G. N. Mandelker. 'Large shareholders and the monitoring of managers: The case of antitakeover charter amendments', *Journal of Fi-*

⁹ Two important points were raised at our presentation at the Academy of Management (1991) that we wish to clarify. First, the methodology used in this paper provides strong evidence that antitakeover amendments harm stockholders but does not **prove** that managers are acting out of self-interest. We believe, however, that our agency interpretation of the evidence is a reasonable one. Second, we have *not* answered the question of whether antitakeover amendments are desirable from a stakeholder perspective (Freeman, 1984). We have provided strong evidence to refute the notion that antitakeover amendments benefit stockholders.

- nancial and Quantitative Analysis, **25**, 1990, pp. 143–161.
- Alchian, A. A. 'Corporate management and property rights'. In H. G. Manne (Ed.) *Economic Policy and the Regulation of Corporate Securities*. American Enterprise Institute, Washington, DC, 1965.
- Alchian, A. A. and H. Demsetz. 'Production, information costs, and economic organization', *American Economic Review*, **62**, 1972, pp. 777–795.
- Amihud, Y. and B. Lev. 'Risk reduction as a managerial motive for conglomerate mergers', *Bell Journal of Economics*, **12**, 1981, pp. 650–657.
- Bagwell, L. S. 'Share repurchase and takeover deterrents', *Rand Journal of Economics*, **22**, 1991, pp. 72–88.
- Balkin, D. B. and L. R. Gomez-Mejia. 'Matching compensation and organizational strategies', *Strategic Management Journal*, **11**, 1990, pp. 153–169.
- Barney, J. 'Organizational culture: Can it be a source of sustained competitive advantage?' *Academy of Management Review*, **11**, 1986, pp. 656–665.
- Barney, J. 'Returns to bidding firms in mergers and acquisitions: Reconsidering the relatedness hypothesis', *Strategic Management Journal*, **9** (Summer), 1988, pp. 71–78.
- Baumol, W. J., J. C. Panzar and R. D. Willig. *Contestable Markets and the Theory of Industry Structure*. Harcourt Brace Jovanovich, New York, 1982.
- Baysinger, B. D. and H. D. Butler. 'Antitakeover amendments, managerial entrenchment, and the contractual theory of the corporation', *Virginia Law Review*, **71**, 1985a, pp. 1257–1303.
- Baysinger, B. D. and H. D. Butler. 'Corporate governance and the board of directors: Performance effects of changes in board composition', *Journal of Law, Economics, and Organization*, **1**, 1985b, pp. 101–124.
- Baysinger, B. D. and R. E. Hoskisson. 'The composition of boards of directors and strategic control: Effects on corporate strategy', *Academy of Management Review*, **15**, 1990, pp. 72–87.
- Baysinger, B. D., R. H. Kosnik and T. A. Turk. 'Effects of board and ownership structure on corporate R&D strategy', *Academy of Management Journal*, **34**, 1991, pp. 205–214.
- Berkovitch, E., M. Bradley and N. Khanna. 'Tender offer auctions, resistance strategies, and social welfare', *Journal of Law, Economics and Organization*, **5**, 1989, pp. 395–412.
- Berkovitch, E. and N. Khanna. 'How target shareholders benefit from value-reducing defensive strategies in takeovers', *Journal of Finance*, **45**, 1990, pp. 137–156.
- Berle, A. and G. C. Means. *The Modern Corporation and Private Property*. Macmillan, New York, 1932.
- Bettis, R. A. 'Modern financial theory, corporate strategy and public policy: Three conundrums', *Academy of Management Review*, **8**, 1983, pp. 406–415.
- Bradley, M. 'Interfirm tender offers and the market for corporate control', *Journal of Business*, **53**, 1980, pp. 345–376.
- Bradley, M., A. Desai and E. H. Kim. 'The rationale behind interfirm tender offers: Information or synergy?' *Journal of Financial Economics*, **11**, 1983, pp. 183–206.
- Bradley, M., A. Desai and E. H. Kim. 'Synergistic gains from corporate acquisitions and their division between the stockholders of target and acquiring firms', *Journal of Financial Economics*, **21**, 1988, pp. 3–40.
- Bradley, M. and L. M. Wakeman. 'The wealth effects of targeted share repurchases', *Journal of Financial Economics*, **11**, 1983, pp. 301–328.
- Brickley, J. A., S. Bhagat and R. C. Lease. 'The impact of long-range managerial compensation plans on shareholder wealth', *Journal of Accounting and Economics*, **7**, 1985, pp. 115–129.
- Brickley, J. A., R. C. Lease and C. W. Smith. 'Ownership structure and voting on antitakeover amendments', *Journal of Financial Economics*, **20**, 1988, pp. 267–291.
- Brown, S. and J. Warner. 'Measuring security price performance', *Journal of Financial Economics*, **8**, 1980, pp. 205–258.
- Brown, S. and J. Warner. 'Using daily stock returns: The case of event studies', *Journal of Financial Economics*, **14**, 1985, pp. 3–31.
- Cary, W. 'Corporate devices used to insulate managers from attack', *Antitrust Law Journal*, **39**, 1969, pp. 318–324.
- Cochran, P. L., R. A. Wood and T. B. Jones. 'The composition of boards of directors and the incidence of golden parachutes', *Academy of Management Journal*, **28**, 1985, pp. 664–671.
- Commons, J. R. *Institutional Economics*. University of Wisconsin Press, Madison, WI, 1934.
- Coughlan, A. T. and R. M. Schmidt. 'Executive compensation, managerial turnover, and firm performance: An empirical investigation', *Journal of Accounting and Economics*, **7**, 1985, pp. 43–66.
- Dann, L. Y. and H. DeAngelo. 'Standstill agreements, privately negotiated stock repurchases, and the market for corporate control', *Journal of Financial Economics*, **11**, 1983, pp. 275–300.
- Davis, G. F. 'Agents without principles? The spread of the poison pill through the intercorporate network', *Administrative Science Quarterly*, **36**, 1991, pp. 583–613.
- DeAngelo, H. and L. DeAngelo. 'Managerial ownership of voting rights: A study of public corporations with dual classes of common stock', *Journal of Finance*, **14**, 1985, pp. 33–70.
- DeAngelo, H. and E. M. Rice. 'Antitakeover charter amendments and stockholder wealth', *Journal of Financial Economics*, **11**, 1983, pp. 329–360.
- Demsetz, H. and K. Lehn. 'The structure of corporate ownership: Causes and consequences', *Journal of Political Economy*, **93**, 1985, pp. 1155–1177.
- Easterbrook, F. H. 'Two agency-cost explanations of dividends', *American Economic Review*, **74**, 1984, pp. 650–659.
- Easterbrook, F. H. and D. R. Fischel. 'The proper role of a target's management in responding to a

- tender offer', *Harvard Law Review*, **94**, 1981, pp. 1161-1204.
- Easterbrook, F. H. and D. R. Fischel. 'Voting in corporate law', *Journal of Law and Economics*, **26**, 1983, pp. 395-427.
- Eaton, J. and H. Rosen. 'Agency, delayed compensation, and the structure of executive remuneration', *Journal of Finance*, **3**, 1983, pp. 1489-1505.
- Eckbo, B. E. 'Horizontal mergers, collusion, and stockholder wealth', *Journal of Financial Economics*, **11**, 1983, pp. 241-273.
- Eisenhardt, K. M. 'Agency theory: An assessment and review', *Academy of Management Review*, **14**, 1989, pp. 57-74.
- Fama, E. 'Agency problems and the theory of the firm', *Journal of Political Economy*, **88**, 1980, pp. 288-307.
- Fama, E. and M. C. Jensen. 'Agency problems and the theory of the firm', *Journal of Law and Economics*, **26**, 1983a, pp. 327-349.
- Fama, E. and M. C. Jensen. 'Separation of ownership and control', *Journal of Law and Economics*, **26**, 1983b, pp. 301-325.
- Fama, E., L. Fisher, M. Jensen and R. Roll. 'The adjustment of stock prices to new information', *International Economic Review*, **10**, 1969, pp. 1-21.
- Finkelstein, S. and D. C. Hambrick. 'Chief executive compensation: A synthesis and reconciliation', *Strategic Management Journal*, **9**, 1988, pp. 543-558.
- Finkelstein, S. and D. C. Hambrick. 'Chief executive compensation: A study of the intersection of markets and political processes', *Strategic Management Journal*, **10**, 1989, pp. 121-134.
- Fortier, D. 'Hostile takeovers and the market for corporate control', *Economic Perspectives*, **13**(1), 1989, pp. 2-16.
- Freeman, E. *Strategic Management: A Stakeholder Approach*. Pitman, Boston, MA, 1984.
- Friedman, S. D. and H. Singh. 'CEO succession and stockholder reaction: The influence of organizational context and event content', *Academy of Management Journal*, **32**, 1989, pp. 718-744.
- Gilson, R. J. 'A structural approach to corporations: The case against defensive tactics in tender offers', *Stanford Law Review*, **33**, 1981, pp. 819-891.
- Gilson, R. J. 'The case against shark repellent amendments: Structural limitations on the enabling concept', *Stanford Law Review*, **34**, 1982, pp. 775-836.
- Gomez-Mejia, L. R., H. Tosi and T. Hinkin. 'Managerial control, performance, and executive compensation', *Academy of Management Journal*, **30**, 1987, pp. 51-70.
- Graves, S. B. and S. A. Waddock. 'Institutional ownership and control: Implications for long-term corporate strategy', *Academy of Management Executive*, **4**, 1990, pp. 75-83.
- Grossman, S. and O. Hart. 'Takeover bids, the free-rider problem, and the theory of the corporation', *Bell Journal of Economics*, **11**, 1980, pp. 42-64.
- Hambrick, D. C. 'Putting top managers back in the strategic picture', *Strategic Management Journal*, **10**, (Summer), 1989, pp. 5-15.
- Hambrick, D. C. and P. A. Mason. 'Upper echelons: The organization as a reflection of its top managers', *Academy of Management Review*, **9**, 1984, pp. 193-206.
- Harris, E. 'Antitakeover measures, golden parachutes, and target firm shareholder welfare', *Rand Journal of Economics*, **21**, 1990, pp. 614-625.
- Hayes, R. H. and S. C. Wheelwright. *Restoring Our Competitive Edge*. John Wiley & Sons, New York, 1984.
- Hermalin, B. E. and M. S. Weisbach. 'The determinants of board composition', *Rand Journal of Economics*, **19**, 1988, pp. 589-606.
- Hill, C. W. L. and G. S. Hansen. 'Institutional holdings and corporate R&D intensity in research intensive industries', *Academy of Management Proceedings*, 1989, pp. 17-21.
- Hill, C. W. L. and S. A. Snell. 'Effects of ownership structure and control on corporate productivity', *Academy of Management Journal*, **32**, 1989, pp. 25-46.
- Jahera, J. S. and W. Pugh. 'State takeover legislation: The case of Delaware', *Journal of Law, Economics and Organization*, **7**, 1991, pp. 410-428.
- Jarrell, G. A. and A. B. Poulsen. 'Shark repellents and stock prices: The effects of antitakeover amendments since 1980', *Journal of Financial Economics*, **19**, 1987, pp. 127-168.
- Jensen, M. C. 'Agency costs of free cash flow, corporate finance, and takeovers', *American Economic Review*, **76**, 1986, pp. 323-329.
- Jensen, M. and W. Meckling. 'Theory of the firm: Managerial behavior, agency costs, and ownership structure', *Journal of Financial Economics*, **3**, 1976, pp. 305-360.
- Jensen, M. and W. Meckling. 'Rights and production functions: An application to labor-managed firms and codetermination', *Journal of Business*, **52**, 1979, pp. 469-506.
- Jensen, M. and R. S. Ruback. 'The market for corporate control: The scientific evidence', *Journal of Financial Economics*, **11**, 1983, pp. 5-50.
- Kerr, J. and R. A. Bettis. 'Board directors, top management compensation, and shareholder returns', *Academy of Management Journal*, **30**, 1987, pp. 645-664.
- Kesner, I. F. and D. R. Dalton. 'Antitakeover tactics: Management 42, Stockholders 0', *Business Horizons*, **28**, 1985, pp. 17-25.
- Klein, B., R. Crawford and A. Alchian. 'Vertical integration, appropriable rents, and the competitive contracting process', *Journal of Law and Economics*, **21**, 1978, pp. 297-326.
- Knoeber, C. R. 'Golden parachutes, shark repellents, and hostile tender offers', *American Economic Review*, **76**, 1986, pp. 155-167.
- Kosnik, R. D. 'Greenmail: A study of board performance in corporate governance', *Administrative Science Quarterly*, **32**, 1987, pp. 163-185.
- Kosnik, R. D. 'Effects of board demography and directors' incentives on corporate greenmail decisions', *Academy of Management Journal*, **33**, 1990, pp. 129-150.

- Lambert, R. A. and D. F. Larcker. 'Golden parachutes, executive decision making, and shareholder wealth', *Journal of Accounting and Economics*, **7**, 1985, pp. 179–203.
- Lehn, K., J. Netter and A. Poulsen. 'Consolidating corporate control: Dual class recapitalizations versus leveraged buyouts', *Journal of Financial Economics*, **27**, 1990, pp. 557–580.
- Linn, S. C. and J. J. McConnell. 'An empirical investigation of the impact of 'antitakeover' amendments on common stock prices', *Journal of Financial Economics*, **11**, 1983, pp. 361–399.
- Lintner, J. 'The valuation of risky assets and the selection of risky investments in stock portfolios and capital budgets', *Review of Economics and Statistics*, **47**, 1965, pp. 13–37.
- Mahoney, J. M. and J. T. Mahoney. 'An empirical investigation of the effect of corporate charter antitakeover amendments on stockholder wealth'. Paper presented at Annual Academy of Management meeting, Miami, FL, August 1991.
- Malatesta, P. H. and R. A. Walking. 'Poison pill securities: Stockholder wealth, profitability, and ownership structure', *Journal of Financial Economics*, **20**, 1988, pp. 347–376.
- Mallette, P. 'Antitakeover charter amendments: Impact on determinants of future competitive position', *Journal of Management*, **17**, 1991, pp. 769–786.
- Manne, H. 'Mergers and the market for corporate control', *Journal of Political Economy*, **73**, 1965, pp. 110–120.
- March, J. G. and H. A. Simon, *Organizations*. Wiley, New York, 1958.
- Margotta, D. G., T. P. McWilliams and V. B. McWilliams. 'An analysis of the stock price effect of the 1986 Ohio takeover legislation', *Journal of Law, Economics, and Organization*, **6**, 1990, pp. 235–251.
- McWilliams, V. B. 'Managerial share ownership and the stock price effects of antitakeover amendment proposals', *Journal of Finance*, **45**, 1990, pp. 1627–1640.
- Meulbroek, L. K., M. L. Mitchell, J. H. Mulherin, J. M. Netter and A. B. Poulsen. 'Shark repellents and managerial myopia: An empirical test', *Journal of Political Economy*, **98**, 1990, pp. 1108–1116.
- Mizruchi, M. S. 'Who controls whom? An examination of the relation between management and boards of directors in large American corporations', *Academy of Management Review*, **8**, 1983, pp. 426–435.
- Morck, R., A. Shleifer and R. W. Vishny. 'Alternative mechanisms for corporate control', *American Economic Review*, **79**, 1989, pp. 842–852.
- Murphy, K. J. 'Corporate performance and management remuneration: An empirical analysis', *Journal of Accounting and Economics*, **7**, 1985, pp. 1–32.
- Myers, C. A. 'Top management featherbedding?' *Sloan Management Review*, **24**(4), 1983, pp. 55–58.
- Norburn, D. and S. Birley. 'The top management team and corporate performance', *Strategic Management Journal*, **9**, 1988, pp. 225–237.
- Oviatt, B. M. 'Agency and transaction cost perspectives on the manager–shareholder relationship: Incentives for congruent interests', *Academy of Management Review*, **13**, 1988, pp. 214–225.
- Partch, M. 'The creation of a class of limited voting common stock and shareholders' wealth', *Journal of Financial Economics*, **18**, 1987, pp. 313–339.
- Pearce, J. A. and S. A. Zahra. 'The relative power of CEOs and boards of directors: Associations with corporate performance', *Strategic Management Journal*, **12**, 1991, pp. 135–153.
- Pfeffer, J. and G. R. Salancik. *The External Control of Organizations: A Resource Dependence Perspective*. Harper & Row Publishers, New York, 1978.
- Pound, J. *The Impact of Antitakeover Charter Amendments on Contests for Corporate Control*. Investor Responsibility Research Center, Washington, DC, 1985.
- Pound, J. 'Shareholder activism and share values: The causes and consequences of countersolicitations against management antitakeover proposals', *Journal of Law and Economics*, **32**, 1989, pp. 357–379.
- Pugh, W. W., D. E. Page and J. S. Jahera. 'Antitakeover charter amendments: Effects on corporate decisions', *Journal of Financial Research*, **15**, 1992, pp. 57–67.
- Rechner, P. L. and D. R. Dalton. 'CEO duality and organizational performance: A longitudinal analysis', *Strategic Management Journal*, **12**, 1991, pp. 155–160.
- Rosenbaum, V. K. *Takeover Defenses: Profiles of the Fortune 500*. Investor Responsibility Research Center, Washington, DC, 1987, 1989.
- Ryngaert, M. 'The effect of poison pill securities on shareholder wealth', *Journal of Financial Economics*, **20**, 1988, pp. 377–417.
- Ryngaert, M. and J. Netter. 'Shareholder wealth effects of the 1986 Ohio antitakeover law revisited: Its real effects', *Journal of Law, Economics, and Organization*, **6**, 1990, pp. 253–262.
- Schelling, T. *The Strategy of Conflict*. Harvard University Press, Cambridge, MA, 1960.
- Scholes, M. and J. Williams. 'Estimating betas from nonsynchronous data', *Journal of Financial Economics*, **5**, 1977, pp. 309–328.
- Schwartz, A. 'Defensive tactics and optimal search', *Journal of Law, Economics and Organization*, **5**, 1989, pp. 413–424.
- Securities & Exchange Commission. 'Shark repellents and stock prices: The effects of antitakeover amendments'. Office of the Chief Economist, Washington, DC, 1985.
- Sharpe, W. F. 'Capital asset prices: A theory of market equilibrium under conditions of risk', *Journal of Finance*, **19**, 1964, pp. 425–442.
- Shleifer, A. and R. W. Vishny. 'Large shareholders and corporate control', *Journal of Political Economy*, **94**, 1986a, pp. 461–488.
- Shleifer, A. and R. W. Vishny. 'Greenmail, white knights, and shareholder's interest', *Rand Journal of Economics*, **17**, 1986b, pp. 293–309.
- Singh, H. and F. Harianto. 'Management-board

- relationships, takeover risk and the adoption of golden parachutes', *Academy of Management Journal*, **32**, 1989a, pp. 7–24.
- Singh, H. and F. Harianto. 'Top management tenure, corporate ownership structure and the magnitude of golden parachutes', *Strategic Management Journal*, **10**(Summer), 1989b, pp. 143–156.
- Sundaramurthy, C. 'Corporate governance and strategic action within the context of anti-takeover charter amendments'. Unpublished dissertation, University of Illinois—Urbana-Champaign, 1992.
- Szewczyk, S. and G. P. Tsetsekos. 'State intervention in the market for corporate control: The case of Pennsylvania Senate Bill 1310'. Working paper, Drexel University, Philadelphia, PA, 1990.
- Thompson, J. D. *Organizations in Action*. McGraw-Hill, New York, 1967.
- Tosi, H. L. and L. R. Gomez-Mejia. 'The decoupling of CEO pay and performance: An agency theory perspective', *Administrative Science Quarterly*, **34**, 1989, pp. 169–189.
- Walkling, R. A. and M. S. Long. 'Agency theory, managerial welfare and takeover by resistance', *Rand Journal of Economics*, **15**, 1984, pp. 54–68.
- Walsh, J. P. and J. K. Seward. 'On the efficiency of internal and external corporate control mechanisms', *Academy of Management Review*, **15**, 1990, pp. 421–458.
- Williamson, O. E. *The Economics of Discretionary Behavior: Managerial Objectives in a Theory of the Firm*. Prentice-Hall, Englewood Cliffs, NJ, 1964.
- Williamson, O. E. *Corporate Control and Business Behavior*. Prentice-Hall, Englewood Cliffs, NJ, 1970.
- Williamson, O. E. *Markets and Hierarchies: Analysis and Antitrust Implications*. The Free Press, New York, 1975.
- Williamson, O. E. *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*. The Free Press, New York, 1985.
- Zahra, S. A. and J. A. Pearce. 'Boards of directors and corporate financial performance: A review and integrative model', *Journal of Management*, **15**, 1989, pp. 291–334.
- Zajac, E. J. 'CEO selection, succession, compensation and firm performance: A theoretical integration and empirical analysis', *Strategic Management Journal*, **11**, 1990, pp. 217–230.