



American Finance Association

CEO Contracting and Antitakeover Amendments

Author(s): Kenneth A. Borokhovich, Kelly R. Brunarski, Robert Parrino

Source: *The Journal of Finance*, Vol. 52, No. 4 (Sep., 1997), pp. 1495-1517

Published by: Blackwell Publishing for the American Finance Association

Stable URL: <http://www.jstor.org/stable/2329444>

Accessed: 25/11/2009 10:11

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/page/info/about/policies/terms.jsp>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/action/showPublisher?publisherCode=black>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Blackwell Publishing and American Finance Association are collaborating with JSTOR to digitize, preserve and extend access to *The Journal of Finance*.

<http://www.jstor.org>

CEO Contracting and Antitakeover Amendments

KENNETH A. BOROKHOVICH, KELLY R. BRUNARSKI, and ROBERT PARRINO*

ABSTRACT

This article examines incentives for adopting antitakeover charter amendments (ATAs) that are associated with compensation contracts. The evidence is consistent with the hypothesis that antitakeover measures such as ATAs help managers protect above-market levels of compensation. Chief executive officers (CEOs) of firms that adopt ATAs receive higher salaries and more valuable option grants than CEOs at similar firms that do not adopt them. Furthermore, the magnitude of this difference increases following ATA adoption. The evidence is inconsistent with the hypothesis that ATAs facilitate the writing of efficient compensation contracts.

THE WIDESPREAD ADOPTION of corporate charter amendments that can make hostile tender offers more costly for bidders has prompted debate concerning whether antitakeover charter amendments (ATAs) are proposed to benefit shareholders or to entrench managers. Empirical studies that examine this issue generally measure stock price reactions to the proposal announcements. However, the overall evidence from these studies is inconclusive. Some report positive shareholder gains while others report insignificant or negative stock price reactions.¹

One possible explanation for the inconclusive event study evidence is that the stock price reactions reflect information unrelated to the direct effect of ATAs on shareholder wealth. For instance, ATA proposals can convey information concerning the probability of a takeover or management quality. Pound (1987) notes that an ATA proposal can signal an increased probability of a takeover. This can bias measured stock prices upward if target shareholders tend to earn positive abnormal returns from successful tender offers. On the other hand, an ATA proposal can provide a negative signal of the quality of management if ATAs are perceived by shareholders as protecting poor managers. Another potential problem with the interpretation of stock price reactions to ATA proposals is that the proxy statements that contain the proposals

* Borokhovich is from Wayne State University, Brunarski is from the Ohio State University, and Parrino is from the University of Texas at Austin. We thank Jim Brickley, K. C. Chan, Lane Daley, Mark Huson, Scott Lee, John Martin, Victoria McWilliams, Nandu Nayar, Joe Reising, Paul Schultz, René Stulz, Teresa Trapani, Ralph Walkling, Marc Zenner, participants in a seminar at the University of Alberta, the editor, David Mayers, and an anonymous referee for their comments. Maura Skill and Derek White provided research assistance for this project.

¹ For example, Linn and McConnell (1983) and McWilliams (1990) report that, on average, ATA proposals are associated with significant positive stock price reactions. In contrast, Bhagat and Jefferis (1991) and Jarrell and Poulsen (1987) report negative stock price reactions, and DeAngelo and Rice (1983) report stock price reactions that are insignificantly different from zero.

also disclose other information. This information can further contaminate returns that are measured over intervals that include the proxy mailing dates.

This study avoids the problems associated with event studies by examining CEO compensation for evidence on the motivations for and effects of ATA adoptions. Knoeber (1986) proposes a theory that suggests that managers at firms that adopt ATAs will receive lower current compensation than managers at firms that do not adopt them. He suggests that ATAs are adopted as part of efficient compensation arrangements in which part of a manager's compensation is deferred until his on-the-job perquisite consumption is revealed. According to Knoeber, ATAs lower the cost of writing such contracts with risk-averse managers by reducing the likelihood of a takeover, and thereby increasing the likelihood that managers will receive compensation that has been deferred. In contrast to Knoeber's theory, the entrenchment theory suggests that ATAs enable managers to expropriate shareholder wealth by protecting them from the takeover market. Since contracts that pay managers above-market compensation provide a means through which expropriation can occur, the entrenchment theory suggests that compensation at firms that adopt ATAs may be above market levels.

At a minimum, the compensation evidence that we report supplements the evidence from event studies. However, the evidence presented here is, in some ways, less ambiguous. Since our evidence is not affected by the confounding events that make it difficult to interpret stock price reactions to ATA adoptions, it is more direct, and in this sense, more convincing.

Evidence on the effectiveness of ATAs as takeover deterrents is described first. If ATAs are not, by themselves, effective takeover deterrents, or if they are not adopted as part of a broader effort to deter takeovers, then the above debate concerning the motivations underlying their adoption is moot. The evidence we report suggests that ATAs are often adopted at the beginning of a concerted effort to deter takeovers and that these efforts are often successful. Firms that adopt ATAs also adopt a larger number of other antitakeover provisions than a sample of control firms that is matched by industry and size. Furthermore, the ATA firms receive significantly fewer takeover bids during the three years following the ATA adoption than the control firms.

The compensation evidence is consistent with the argument that ATAs facilitate entrenchment and inconsistent with Knoeber's (1986) theory. CEOs of ATA firms are found to receive, on average, significantly higher levels of current compensation than control firm CEOs in the year prior to the ATA proposal. Furthermore, the inflation-adjusted difference between ATA and control-firm CEO compensation increases significantly during the three years following ATA adoption. This latter evidence suggests that the CEOs of ATA-adopting firms use the protection that antitakeover measures provide them to increase their compensation levels.

In addition to the compensation evidence, we also report evidence concerning Knoeber's (1986) suggestion that ATAs and golden parachutes are substitute means of protecting deferred compensation. To the extent that golden parachutes guarantee that deferred compensation will be paid in the event of

a takeover, they can also be used to reduce the cost of long-term contracts. Contrary to Knoeber's theory, the evidence indicates that CEOs of firms that adopt ATAs are significantly more likely already to be protected by golden parachutes than their counterparts at the control firms. ATAs and golden parachutes do not appear to be viewed as substitutes.

The rest of the article is organized as follows. The more common types of ATAs and the testable hypotheses concerning motivations underlying their adoption are discussed in Section I. Section II describes the sample selection procedure and the data used in the empirical analysis. Evidence concerning other efforts of ATA-adopting firms to deter takeovers and the subsequent success of those efforts is presented in Section III. Empirical tests of the motivations for ATA adoption are presented in Section IV, and conclusions are summarized in Section V.

I. Long-Term Contracting Motivations for ATAs

A variety of ATAs have been adopted by public firms. Among the more common provisions are those that 1) require the approval of a supermajority of shareholders—typically between 66 percent and 80 percent—before a merger can be completed (supermajority provisions), 2) require the bidder to either meet a specified “fair” price or to receive approval of a supermajority of the firm's voting shareholders (fair price provisions), 3) stagger the terms of directors (classified board provisions), 4) provide directors with broad discretion to issue new stock and establish voting rights (blank check preferred provisions), 5) restrict the ability of shareholders to call special meetings, or 6) eliminate cumulative voting rights.² While some of these amendments may serve multiple purposes, all can increase the cost of successfully completing a hostile tender offer (Williamson (1975)). This section describes efficient contracting and entrenchment hypotheses concerning motivations for the adoption of these ATAs.

A. Efficient Compensation Contracting Hypothesis

DeAngelo and Rice (1983) describe how ATAs can benefit shareholders by increasing the incentives of managers to invest in attractive projects. They argue that ATAs can be viewed as long-term employment contracts that reduce the risk to management of undertaking profitable long-term investments that may initially appear unprofitable to outside investors. By reducing the likelihood that management is displaced through a takeover before the true value of such a project is revealed, ATAs provide managers who invest in such projects with some assurance that the value of their human capital in the labor market will not be harmed.³ This reduces the cost to the firm of writing such contracts.

² DeAngelo and Rice (1983), Linn and McConnell (1983), and Rosenbaum (1990) provide detailed descriptions of these provisions.

³ A takeover that occurs before the true value of a project is revealed can appear to be disciplinary, thereby subjecting the senior managers to the loss of position and compensation described by Gilson (1989), Cannella, Fraser, and Lee (1995), and Agrawal and Walkling (1994).

Stein (1988) develops a model that illustrates how ATAs can increase the likelihood that profitable long-term investments are adopted even when the incentives of managers are aligned with those of shareholders. In this model, firms that invest in long-term projects with delayed returns are initially undervalued because it is costly to communicate information concerning the prospects for these projects to investors. Stein argues that shareholders may not receive a price that reflects the true value of the firm if a takeover occurs before the returns on these projects are revealed. The adoption of antitakeover measures therefore increases the ability of shareholders to capture the value created by these projects and, as a result, the likelihood that they are adopted.

Knoeber (1986) extends the long-term contracting theory described by DeAngelo and Rice (1983) to include compensation contracts. Knoeber argues that the board of directors will prefer a compensation package that defers a portion of a manager's compensation when there is uncertainty about his on-the-job perquisite consumption. A contract that pays low current compensation and high deferred compensation facilitates settling-up with the manager after his on-the-job consumption is revealed. A manager who enters into such a contract faces a risk that the promised settling-up will not occur. Reputational concerns are likely to prevent the board that devises such a contract from breaking it. Doing so would make it more costly for the board to contract with managers in the future. However, a board that is appointed following a successful takeover suffers no loss of reputation for failure to honor an implicit contract entered into by its predecessor. Therefore, unless a risk-averse manager is provided either protection against takeovers or some assurance that deferred compensation will be received in the event of a successful takeover, he/she will require a higher level of compensation to enter into such a contract.

Knoeber (1986) maintains that either an ATA or a golden parachute, which contractually guarantees the manager a prespecified payment in the event of a takeover, is part of the optimal contract in this situation. The protection provided by these measures reduces the cost of convincing risk-averse managers to defer part of their compensation. Knoeber suggests that golden parachutes and ATAs are substitute contracting mechanisms; if deferred compensation is guaranteed in the event of a takeover by a golden parachute, it is not necessary to adopt an ATA.

The theories described by DeAngelo and Rice (1983) and Knoeber (1986) both view ATAs as providing a means of reducing the cost of long-term contracts with managers. The theory advanced by DeAngelo and Rice is a general statement that is difficult to test. However, in a test of the predictions from Stein's (1988) model, Meulbroek *et al.* (1990) report evidence that is inconsistent with the idea that the adoption of ATAs increases the incentives of managers to invest in attractive long-term projects with delayed returns. They find that research and development efforts decline, rather than increase, following the adoption of ATAs.

In contrast to the DeAngelo and Rice theory, the theory described by Knoeber, which we refer to as the *efficient compensation contracting hypothesis*, has two specific empirically testable predictions. The first is that management at

firms that adopt ATAs will tend to receive lower current compensation than management at firms that do not adopt them. The second prediction is that firms that have adopted golden parachutes are less likely to subsequently adopt ATAs.

B. Entrenchment Hypothesis

The *entrenchment hypothesis* was first described in detail by DeAngelo and Rice (1983). This hypothesis holds that by making it more costly for shareholders to replace management through a stockholder vote, ATAs increase the ability of management to make self-serving investment and operating decisions that benefit them at the expense of shareholders. Such decisions may include overinvesting in certain types of businesses or other assets such as corporate aircraft, executive dining facilities, or club memberships that are highly valued by managers.

Managers may also benefit from ATAs to the extent that they help protect above-market levels of compensation. The level of cash compensation received by management is one potential indicator of entrenchment incentives that is directly observable. Managers who receive above-market compensation have an incentive to propose ATAs in order to protect their compensation from the ex post settling-up that can occur following a successful takeover.⁴ Furthermore, once an ATA has been adopted, entrenched managers may use the protection provided by the ATA to obtain contracts that further increase the level of their compensation.

II. Data

A. Sample

An initial sample of firms that proposed ATAs from 1979 through 1987 is obtained from the list provided in Jarrell and Poulsen (1987) and a search of the *Dow Jones News Retrieval Service*.⁵ The *Dow Jones News Retrieval Service* contains information from *The Wall Street Journal*, *Barron's*, and the *Dow Jones Newswire*. The sample period ends in 1987 because the subsequent proliferation of state antitakeover laws and the adoption of antitakeover defenses by firms makes it difficult to identify matching firms that are not affected by such laws or provisions after 1987. For example, Comment and Schwert (1995) report a sharp increase in the number of states adopting antitakeover legislation and firms adopting poison pills in 1988. They report that the percentage of exchange-listed firms protected by either control share laws, business combination laws, or poison pills increased from approximately 38 percent in 1987 to 77 percent in 1988.

⁴ There is evidence of a relation between takeovers and the level of executive compensation. Walkling and Long (1984) find that executives who contest tender offers are, on average, paid more than those that do not contest. Agrawal and Walkling (1994) observe that changes in CEO compensation following takeover bids are negatively related to prebid abnormal compensation.

⁵ The keywords used in the search are fair price, supermajority, and antitakeover amendment.

For each firm identified through these sources, the proxy statement in which the ATA is proposed is examined to verify that the amendment is proposed and to determine the nature of the amendment. All of the proposed amendments are assumed to have been adopted since no evidence is found in *The Wall Street Journal Index* or the *Dow Jones News Retrieval Service* that any are defeated.

Firms that do not propose either a supermajority or a fair price amendment are removed from the sample. This ensures that each remaining firm proposed at least one ATA that has no use other than to deter a takeover bid. Since supermajority and fair price amendments are only useful when there is a takeover bid, they are expected to provide an unambiguous signal of the decision to make tender offers more costly for bidders. Firms that propose other amendments are excluded from the sample because these amendments, while potentially useful in deterring takeovers, have other business uses. For instance, classified boards may provide continuity in management while the authorization to issue "blank check" preferred stock gives management flexibility in financing decisions.

All ATA firms not listed on the Center for Research in Securities Prices (CRSP) and COMPUSTAT databases are also excluded from the sample. Each remaining ATA firm is then matched to the firm on COMPUSTAT with the same four-digit Standard Industrial Classification (SIC) industry code that is the closest in size to the ATA firm. Firm size is measured using the book value of total assets from the annual report immediately preceding the amendment proposal. All proxy statements for each control firm are reviewed from 1978 to the year of the ATA proposal to determine if an ATA is proposed during this period. When an ATA proposal is found, the control firm is added to the ATA sample and the matching procedure is repeated. The Investor Responsibility Research Center (IRRC) *Corporate Takeover Defenses 1990* book (Rosenbaum (1990)) and proxy statements are used to identify and eliminate control firms that adopted an ATA prior to 1978, or adopted an ATA during the three years following the adoption of the ATA by the matched firm.⁶ The final sample consists of 129 ATA firms and 129 corresponding control firms. Of the 129 ATA firms, 72 appear on the Jarrell and Poulsen (1987) list, 55 originate from the Dow Jones News Retrieval Service, and the remaining two are identified during the matching procedure.

B. Data Sources

The Wall Street Journal Index, Rosenbaum (1990), and proxy statements are used to collect nonfinancial data for the ATA and control firms. The *Wall Street Journal Index* is reviewed for each ATA and control firm for evidence of takeover bids during the proposal year and in each of the subsequent three years. Rosenbaum (1990) and proxy statements are used to determine the number of antitakeover provisions adopted by each firm and when those

⁶ The percentage of control firms that are incorporated in states with antitakeover legislation is also compared with the corresponding percentage for the ATA sample. Those percentages are similar, suggesting that state antitakeover legislation does not bias the results.

provisions are adopted. Rosenbaum reports both ATAs and other antitakeover measures that do not require shareholder approval. These data are available for approximately 70 percent of the ATA and control firms. Proxy statements are also used to determine board composition at the time of the ATA proposal and whether the CEO departed within three years of the proposal.

The individual holding the title of CEO, Chairman of the Board, or President who receives the largest cash compensation in the form of salary plus bonus during the year preceding the amendment proposal is identified as the top executive. For simplicity, this individual is referred to in this study as the CEO. Salary, bonus, stock option grant, and golden parachute data are obtained for each ATA and control firm CEO from the proxy statement for the year of the ATA proposal and for the subsequent three years.

Option data in the proxy statements are frequently aggregated over several years. This makes it difficult to obtain reliable information for the number of options granted in each year. For this reason, the number of options granted is obtained only for the year in which the amendment is proposed. The market value of the option grants is estimated using the modification of the Black-Scholes (1973) model proposed by Merton (1973).⁷ Compensation from long-term performance plans and restricted stock plans are not included in the analysis because reliable data are not available.

The beneficial stock ownership of the CEO and outside blockholders are also obtained from proxy statements in the year of the amendment proposal for all ATA and control firms. The fractional stock ownership is adjusted to reflect the fractional voting rights attributable to all classes of voting stock in order to obtain a measure of the ability of the CEO and blockholders to affect the outcome of a takeover bid.

III. ATA Firm Efforts to Deter Takeovers

The *entrenchment* and *efficient compensation contracting hypotheses* both assume that ATAs are effective takeover deterrents. However, while ATAs can increase the cost of a takeover, the actual level of protection that they provide to managers is unclear. If ATAs are not, by themselves, effective takeover deterrents, or they are not adopted as part of a broader effort to deter take-

⁷ The model used to calculate the value of the options granted is

$$\text{Value of Options Granted} = N \cdot [Se^{-dT}\Phi(Z) - Pe^{-rT}\Phi(Z - \sigma\sqrt{T})]$$

$$\text{where } Z = \frac{\ln(S/P) + (r - d + (\sigma^2/2))T}{\sigma\sqrt{T}}$$

The variables used in the calculations are as follows: N = number of options granted, P = option exercise price, S = stock price (on proxy date), T = number of periods to expiration (assumed to be 5 years), r = riskless rate (5-year Treasury note on proxy date), d = dividend yield (calculated for 3 years prior to proxy date), σ = standard deviation of stock returns (estimated from annualized daily data for the 200 days prior to the proxy date). $\Phi(\cdot)$ is the cumulative standard normal distribution operator.

overs, then the debate concerning the efficient compensation contracting and entrenchment motivations underlying their adoption is questionable.

A. Takeover Bids at ATA and Control Firms

Two studies that examine the ability of ATAs to deter takeovers report inconsistent results. Pound (1987) finds that supermajority and classified board ATAs deter takeover bids, but Ambrose and Megginson (1992) report an insignificant relation between the presence of these amendments and the likelihood of a takeover attempt. Furthermore, Ambrose and Megginson also find no evidence that the likelihood of a takeover bid is affected by the adoption of a fair price provision.

Since the effectiveness of ATAs is crucial to the interpretation of the evidence that we report, we first examine the difference in the frequency of takeover bids between the ATA and control samples during the three years following ATA adoption. Takeover bids are identified using *The Wall Street Journal Index* and confirmed through a review of the relevant articles. Our test is similar to that reported by Pound (1987). However, the matching process used to construct our sample provides additional controls for firm size and industry, both of which may affect the observed frequencies. Size is likely to deter some takeover attempts and industry affiliation is an important explanatory variable if takeover bids occurred more frequently in some industries than in others during the study period.

The evidence indicates that the ATA-adopting firms are targets of six takeover bids and the control firms targets of 17 during the three years following ATA adoption. This difference, which is significant at the 2 percent level (Pearson $\chi^2 = 5.78$), is consistent with the evidence reported by Pound (1987). However, while the test controls for firm size and industry, it does not necessarily indicate that ATAs themselves are effective takeover deterrents. The ATA firms may receive fewer takeover bids because they adopt a larger number of other, more effective, antitakeover measures than the control firms.

B. Other Takeover Deterrents

In an effort to determine whether the lower number of takeover bids received by ATA-adopting firms can be attributed to the ATAs, we obtain data on the number of other antitakeover measures that were adopted by the ATA and control firms through 1990 from Rosenbaum (1990). The number of antitakeover measures adopted by the ATA and control firms indicate that they have, on average, a similar number of antitakeover measures (0.23 and 0.18, respectively) in place prior to the year in which the supermajority or fair price amendment is adopted. However, the ATA-adopting firms subsequently adopt more of these measures than the control firms. During the adoption year, the ATA firms add an average of 2.41 antitakeover measures, including the supermajority and/or fair price provision, while the control firms add an average of only 0.07 (z -statistic for Wilcoxon Rank Sum Test of the difference is 16.919, $p = 0.000$). Furthermore, the ATA firms adopt an average of 1.21 additional

measures between the year following the ATA adoption and 1990, while the control sample firms adopt an average of only 0.86 (z -statistic for Wilcoxon Rank Sum Test of the difference is 2.189, $p = 0.029$).

Whether an ATA by itself is a meaningful takeover deterrent is not clear from the above evidence, but the number of other antitakeover measures adopted by the ATA firms and the timing of their adoption indicates that many ATAs are adopted at the beginning of a concerted effort to deter takeovers. The relatively small number of takeover bids subsequently received by the ATA firms suggests that these efforts are often effective.

IV. The Efficient Compensation Contracting and Entrenchment Hypotheses

The efforts by the ATA-adopting firms to make it more costly for the market for corporate control to displace management raises the question of what motivates these activities. This section discusses empirical tests of the predictions of the *entrenchment* and *efficient compensation contracting hypotheses*.

Throughout the remainder of the empirical analysis, statistics are reported for the ATA firms for which the relevant data are also available for the corresponding control firm. Control firms are excluded when data are not available for the corresponding ATA firm.

A. Golden Parachutes

To determine whether ATAs and golden parachutes are substitute mechanisms for insuring the payment of deferred compensation, as Knoeber (1986) predicts, proxy statements are used to identify the firms that have golden parachutes in place by the ATA adoption year. Panel A of Table I reports the number of CEOs that are protected by golden parachute provisions. The data in Panel A indicate that the CEO of an ATA-adopting firm is twice as likely to be protected by one of these provisions. This difference is highly significant (z -statistic for large sample binomial test of difference is 4.574, $p = 0.000$). The relatively high percentage of ATA firm CEOs that are already protected by golden parachutes is inconsistent with Knoeber's argument that ATAs and golden parachutes are substitutes. To the contrary, the highly significant difference suggests that ATAs and golden parachutes complement each other in some way.

B. CEO Compensation

Direct evidence concerning CEO compensation levels is presented in Panel B of Table I. All compensation figures are deflated by the consumer price index, and reported in 1978 dollars. The evidence reveals that ATA firm CEOs receive, on average, higher cash compensation (salary plus bonus) and more valuable option grants than their control firm counterparts in the year pre-

Table I
Golden Parachutes and CEO Compensation

Statistics are for a sample of 129 firms that adopted fair price or supermajority charter amendments between 1978 and 1987 and a control sample matched by 4-digit Standard Industrial Classification (SIC) industry and total assets. All dollar values have been deflated to 1978 dollars using the Consumer Price Index. The value of options granted in the amendment adoption year is estimated using a modified Black-Scholes model.

Panel A: CEOs Protected by Golden Parachutes at Time of ATA Adoption				
	Number of Matched Pairs	Number of ATA Firms with Parachutes (Percent)	Number of Control Firms with Parachutes (Percent)	z-Statistic for Large Sample Binomial Test of Difference (<i>p</i> -Value)
	129	36 (27.91%)	18 (13.95%)	4.574 (0.000)

Panel B: CEO Compensation in Fiscal Year Preceding ATA Adoption					
	Number of Matched Pairs	Amendment-Adopting Firm Mean (Median)	Control Firm Mean (Median)	Statistics for Tests of Differences in Means and Medians	
				<i>t</i> -statistic (<i>p</i> -value)	Wilcoxon <i>z</i> (<i>p</i> -value)
Salary + bonus	125	\$266,637 (\$236,010)	\$234,012 (\$180,448)	1.539 (0.125)	2.280 (0.023)
Value of options granted	94	\$192,801 (\$ 27,636)	\$ 84,596 (\$ 0)	2.398 (0.018)	3.207 (0.001)
Total compensation (salary + bonus + value of options)	94	\$437,699 (\$275,324)	\$301,673 (\$182,865)	2.391 (0.018)	2.350 (0.019)

ceding the ATA proposal.⁸ Not surprisingly, when these components of compensation are considered together, CEOs of ATA-adopting firms receive significantly higher total compensation (defined as cash compensation plus the market value of options granted).⁹

The larger cash and option-based compensation received by ATA firm CEOs is consistent with the *entrenchment hypothesis* and contrary to the implications of the *efficient compensation contracting hypothesis*. However, the uni-

⁸ These components of compensation are examined because they are easily observable. However, the focus on pecuniary benefits does not imply that the benefits derived by managers are limited to these sources. As suggested earlier, managers can benefit in less observable ways through their operating and investment decisions. Such benefits will reinforce the incentives from cash- and stock-based compensation to the extent that the value of nonpecuniary benefits received by CEOs is positively related to the level of pecuniary compensation.

⁹ This difference in compensation is consistent with the positive relation between CEO salary and the likelihood of ATA adoption reported by Sias, Starks, and Tinic (1995).

Table II
Firm Size, Performance, Ownership Structure, and CEO Board Tenure

Statistics are for a sample of 129 firms that adopted fair price or supermajority charter amendments between 1978 and 1987 and a control sample matched by 4-digit Standard Industrial Classification (SIC) industry and total assets. Directors who are not current or former officers of the firm and who are not currently employed at an accounting firm, a commercial bank, an investment bank, a law firm, or a consulting firm are classified as outsiders. Fractional share ownership equals the fraction of total votes when there is more than one class of voting shares.

	Number of Matched Pairs	Amendment- Adopting Firm Mean (Median)	Control Firm Mean (Median)	Statistics for Tests of Differences in Means and Medians	
				t-Statistic (p-Value)	Wilcoxon z (p-Value)
Panel A: Firm Size, Performance, and Growth Opportunities in Fiscal Year Preceding ATA Adoption					
Total assets	129	\$ 1.68 (\$ 0.31)	\$ 2.01 (\$ 0.25)	-0.386 (0.700)	0.492 (0.623)
EBIT/book assets less 2-digit SIC industry average EBIT/book assets	109	2.01% (2.01%)	-0.56% (-0.57%)	1.828 (0.069)	2.483 (0.013)
Total stock return less 2-digit SIC industry average return	121	6.62% (2.36%)	4.07% (3.09%)	0.534 (0.594)	0.821 (0.412)
A/V ratio: Book assets/ (market equity + book liabilities)	117	0.814 (0.834)	0.867 (0.895)	-1.670 (0.096)	-1.699 (0.089)
Panel B: Board Composition and Ownership Structure at Time of ATA Adoption					
Percentage of outside directors	129	70.47% (72.73%)	65.12% (66.67%)	2.771 (0.006)	2.488 (0.013)
Outside blockholder fractional share ownership	128	10.42% (5.90%)	12.85% (6.68%)	-1.176 (0.241)	-0.231 (0.817)
CEO fractional share ownership	127	3.85% (0.52%)	9.03% (1.17%)	-3.313 (0.001)	-2.079 (0.038)
Panel C: CEO Tenure as a Director at Time of ATA Adoption					
Tenure as a director (years)	127	15.23 (14.00)	16.91 (15.00)	1.389 (0.166)	1.236 (0.216)

variate tests of differences reported in Panel B of Table I do not control for other variables that may systematically differ between the ATA and control firms and are likely to affect CEO compensation levels.

B.1. DETERMINANTS OF CEO COMPENSATION LEVELS

Table II reports means, medians, and univariate test statistics for measures of firm size, performance, growth opportunities, board composition, ownership structure, and CEO tenure as a director. Other studies suggest that these firm and CEO characteristics are likely to affect CEO compensation levels.

Panel A of Table II presents statistics for firm size, performance, and growth opportunities. Firm size and performance are reported because Murphy (1985), Jensen and Murphy (1990), and Agrawal and Walkling (1994) all report significant positive relations between CEO compensation and these variables. The book value of assets is used here as a proxy for firm size. The similarity of the mean and median book values for the ATA and control firms indicates that the matching procedure used to construct the sample controls reasonably well for size. Panel A also shows that ATA firms exhibit, on average, significantly higher accounting performance in the fiscal year preceding ATA adoption, but that industry-adjusted total stock returns for the ATA and control firms are not significantly different.

Smith and Watts (1992) and Gaver and Gaver (1993) report evidence of a positive relation between CEO compensation and the growth opportunities available to the firm. Smith and Watts propose that the marginal product of an executive who simply supervises existing assets is lower than that of one who makes investment decisions and that there are more good supervisors than good investment decision makers. Consequently they predict a positive relation between the growth opportunities available to a firm and the level of CEO compensation. The ratio of book assets to market value of assets (A/V ratio) is used here as a proxy for the growth opportunities available to the firm.¹⁰ Smith and Watts suggest that the A/V ratio is negatively related to the growth opportunities available to the firm. The significantly lower A/V ratio for the ATA firms suggests that they may have more growth opportunities than the control firms.

Panel B of Table II reports statistics for variables that are related to the incentives of directors to act in the interests of shareholders and of outside shareholders to monitor management. Brickley and James (1987) argue that the incentives of outside directors are better aligned with those of the shareholders and that corporate decisions are therefore influenced by the percentage of outside directors on the board.¹¹ Shleifer and Vishny (1986) propose that blockholders have greater incentives to monitor management than smaller shareholders because the total benefits to them from such activities are more likely to exceed the cost. The arguments by Brickley and James and Shleifer and Vishny suggest that CEO compensation is more likely to be tied to shareholder welfare in firms where there is a higher percentage of outside directors and where outside shareholders own a larger proportion of the firm's shares. The statistics in Panel B indicate that ATA firm boards have, on average, a significantly greater percentage of outside directors than the control

¹⁰ The market value of assets used to calculate the A/V ratio is computed as the market value of equity plus the book value of assets minus the book value of equity.

¹¹ Several other studies report evidence that outside directors are more likely to act in shareholder interests than inside directors. Weisbach (1988) reports a stronger relation between firm performance and the likelihood of CEO turnover at firms with outsider-dominated boards than at firms with insider-dominated boards. Byrd and Hickman (1992), Lee, Rosenstein, Rangan, and Davidson (1992), and Brickley, Coles, and Terry (1994) report evidence that the market tends to view decisions by outsider-dominated boards more favorably.

firm boards. However, the fractional share ownership of outside blockholders does not differ significantly between the ATA and control samples.

Mean and median values for CEO fractional share ownership are also reported in Panel B of Table II. This variable is included because CEO ownership is expected to affect the alignment of CEO incentives with those of shareholders. For instance, Jensen and Meckling (1976) suggest that this alignment is greater where the CEO's fractional share ownership is larger. The evidence in Panel B indicates that the ATA firm CEOs tend to own a smaller percentage of their firms' shares than the control firm CEOs.¹²

The number of years that the CEO has been on the board of directors is used as a proxy for the level of specific human capital that he has acquired. Mayers and Smith (1992) report a positive relation between the level of CEO compensation and a similar variable, the number of years that the CEO has held that title. Panel C of Table II indicates that board tenure for the ATA and control firm CEOs is similar.

B.2. OLS ESTIMATES OF CEO COMPENSATION

Ordinary least squares (OLS) regressions in which the dependent variable is the natural log of CEO compensation are estimated to investigate whether the differences in ATA and control firm CEO compensation are explained by variation in the variables listed in Table II. Coefficient estimates for these regressions are reported in Table III. The fiscal year immediately preceding ATA adoption is designated as year 0, the year of ATA adoption is designated as year 1, and the two subsequent years are designated as years 2 and 3, respectively. Compensation is defined as salary and bonus in all regressions except the one labeled year 0a. Bonuses are included with salary because Jensen and Murphy (1990) find that they tend to be paid regardless of performance. In the regression labeled year 0a, compensation is defined as salary and bonus plus the market value of options granted.

The decline in the number of observations over the three year period following the ATA adoption is due to data limitations and turnover among the CEOs in the sample. Paired observations are excluded for years when a proxy statement is not available for either the ATA or control firm and for all years after the departure of either the ATA or control firm CEO who is in office in year 0.

The models in Table III include a dummy variable that equals 1 if the observation is for an ATA firm CEO and zero otherwise. The *entrenchment hypothesis* predicts that the coefficient estimates for this variable will be positive, while the *efficient compensation contracting hypothesis* predicts negative coefficients. Consistent with the *entrenchment hypothesis*, the uniformly positive coefficient estimates for the ATA dummy indicate that ATA firm CEOs

¹² The significantly lower CEO fractional share ownership at the ATA firms is consistent with Stulz's (1988) argument that ATAs can substitute for equity holdings as a takeover deterrent. On average, the CEOs of the ATA firms have less than half the voting power held by their counterparts at the control firms.

Table III
Compensation Regressions

Coefficients from Ordinary Least Squares (OLS) regressions estimated using a sample of 129 firms that adopted fair price or supermajority charter amendments and a control sample matched by 4-digit Standard Industrial Classification (SIC) industry and total assets. The dependent variable equals either the natural log of salary and bonus (years 0, 1, 2, and 3) or the natural log of salary and bonus plus the value of options granted (year 0a). Year 0 is the fiscal year preceding antitakeover charter amendment (ATA) adoption. All dollar values have been deflated to 1978 dollars using the Consumer Price Index. Performance variables and the A/V ratio are for the indicated fiscal year. The year in which the CEO became a director and the board composition and share ownership variables are obtained from the proxy statement containing the amendment proposal. p-values for two-tailed tests are in parentheses.

Independent Variable	Year 0	Year 0a	Year 1	Year 2	Year 3
Intercept	10.9440 (0.000)	11.5060 (0.000)	11.3240 (0.000)	11.0060 (0.000)	11.1660 (0.000)
ATA dummy – 1 if ATA firm	0.1599 (0.013)	0.2449 (0.024)	0.2263 (0.004)	0.2182 (0.005)	0.2959 (0.004)
Natural log of assets at end of fiscal year preceding amendment adoption	0.2660 (0.000)	0.2630 (0.000)	0.2410 (0.000)	0.2489 (0.000)	0.2538 (0.000)
Total return on common stock less the 2-digit SIC industry average	0.1304 (0.090)	0.0507 (0.661)	-0.1020 (0.305)	-0.1101 (0.486)	-0.1269 (0.363)
EBIT/book assets less the 2-digit SIC industry average	0.0833 (0.663)	0.3291 (0.302)	-0.4062 (0.432)	0.2092 (0.464)	0.5431 (0.454)
A/V ratio: Book assets/(market equity + book liabilities)	-0.4570 (0.001)	-0.7568 (0.001)	-0.8075 (0.001)	-0.4587 (0.013)	-0.6536 (0.020)
Years that CEO has been a director	0.0077 (0.028)	0.0109 (0.030)	0.0106 (0.015)	0.0053 (0.149)	0.0062 (0.319)
Percent of outsiders on the board of directors	-0.1513 (0.530)	-0.3854 (0.386)			
CEO fractional share ownership	0.0181 (0.955)	-0.5432 (0.163)			
Outside blockholder fractional share ownership	0.0714 (0.643)	0.3261 (0.266)			
Adjusted R ²	0.50	0.38	0.47	0.49	0.49
Number of observations	198	148	148	140	110
Number of matched pairs	99	74	74	70	55

earn higher compensation than control firm CEOs in the year preceding the ATA adoption, and in each of the subsequent three years. This evidence of a persistent difference between the compensation of the ATA and control firm CEOs indicates that the difference in the year preceding the ATA proposal (see Table I) is not an aberration or temporary phenomenon that is subsequently rectified by the board. Furthermore, the differences in compensation levels reported in Table I persist after controlling for firm size, performance, growth opportunities, board composition, stock ownership, and CEO board tenure.^{13,14}

¹³ The higher compensation earned by ATA firm CEOs does not appear to be compensation for bearing greater risk. The bankruptcy risk of the two samples, as proxied by the variance of stock

The positive significant coefficient estimates for the ATA dummy are robust to alternative specifications of the compensation models. These coefficient estimates are of similar magnitude and statistical significance when the regressions in Table III are estimated using performance measures that are not industry adjusted, lagged performance measures, and when the A/V ratio, CEO tenure as a director, and fractional share ownership variables are excluded individually or collectively. For instance, the coefficient estimate for the ATA dummy and its p -value vary from 0.1563 to 0.2079 and from 0.007 to 0.022, respectively, in the Year 0 regression in alternative specifications of this model.

The model specifications in Table III assume that the sensitivity of CEO compensation to the different independent variables is similar for the ATA and control firms. To test this assumption, interaction terms between the ATA dummy and each of the independent variables are introduced individually to each model. None of the 18 coefficient estimates for interaction terms are significant at the 10 percent level in the Year 0, Year 1, and Year 3 models. Two interaction terms are significant in both the Year 0a (the log of assets (positive) and the percentage of outside board members (negative)) and Year 2 (market return (positive) and the A/V ratio (negative)) models. These tests suggest that there are no meaningful differences in the sensitivities of compensation to the independent variables since only four of the 31 coefficient estimates for interaction terms are significant at the 10 percent level, and the four significant interaction terms all involve different independent variables.

B.3. ESTIMATING THE EXCESS COMPENSATION EARNED BY ATA FIRM CEOs

The positive coefficient estimates for the ATA dummy variables in Table III indicate that there is a statistically significant difference between the levels of

returns, is similar for the ATA firms and control firms during the three year periods both before and after the amendment is adopted. The mean annual change in salary and bonus for ATA firm CEOs is 10.9 percent (maximum change of 174.6 percent and minimum of -55.2 percent) with a standard deviation of 27.5 percent. The corresponding values for control firm CEOs are a mean of 5.5 percent (maximum change of 180.0 percent and minimum of -64.1 percent) with a standard deviation of 24.1 percent. The difference in the standard deviations is only marginally significant at the 10 percent level (F -statistic of 1.305 with $n_1 = 210$ and $n_2 = 210$).

¹⁴ The coefficients for the control variables in Table III are generally consistent with the evidence reported in previous studies. However, the largely insignificant coefficient estimates for the performance measures are surprising in view of the positive relations reported elsewhere. The insignificant coefficient estimates for the EBIT/assets ratio appears to be due, in part, to the relatively high negative correlation between this ratio and the A/V ratio (-0.3366 for the 198 observations in year 0). When the A/V ratio is excluded from the regressions, the coefficient estimates for the EBIT/assets ratio are significant at the 10 percent level in all regressions except that for year 2. The regressions in Table III are also estimated using lagged EBIT/assets, changes in EBIT/assets, and EBIT/assets without the industry adjustment, but the coefficient estimates for these variables are also insignificant when the A/V ratio is included in these models. The coefficient estimates for the common stock return variable are also generally insignificantly different from zero when the regressions in Table III are estimated using lagged returns and returns without the industry adjustment.

ATA and control firm CEO compensation. The dollar value of this difference is estimated to examine whether the relatively high level of compensation received by the ATA firm CEOs is likely to provide them with economically meaningful incentives to adopt antitakeover measures. This is accomplished as follows. First, regressions similar to those for years 0, 1, 2, and 3 in Table III are estimated without the ATA dummy and the insignificant board composition and ownership variables.¹⁵ Separate models are estimated for each year using only paired observations for which all of the necessary data is available and for which both the original ATA and the original control firm CEO is still in office during that year. Second, predicted CEO compensation is computed for each year using the coefficient estimates from the regressions and the data used to estimate them. Third, the level of excess compensation for each CEO is obtained by subtracting the predicted compensation from actual compensation. Finally, the excess compensation for each control firm CEO is subtracted from the excess compensation for the matching ATA firm CEO to obtain an estimate of the extent to which the compensation received by each ATA firm CEO exceeds the market level.

The evidence reported in Table IV suggests that the median level of above-market compensation received by ATA firm CEOs is a substantial percentage of their total compensation. Panels A and B present summary data for ATA and control firm CEO excess compensation. Panel C reports statistics for differences in the excess compensation between the matched pairs of firms. The median difference in excess compensation for the matched pairs (reported in Panel C) ranges from \$20,134 in year 0 to \$33,906 in year 3 in 1978 dollars. Alternatively, the difference in excess compensation represents over 16.6 percent of the ATA firm CEO's year 3 salary and bonus in half of the cases.

The difference between ATA and control firm CEO excess salary and bonus in year 0 represents, on average, 0.02 percent of the total market value of the firm's equity. The corresponding figure for total compensation is 0.05 percent.¹⁶ While these amounts appear small, they are likely to represent only a fraction of the total shareholder loss. The evidence that the above-market compensation persists suggests that the shareholder loss from above-market direct compensation to the CEO will be several times the 0.05 percent figure if the average ATA firm CEO, who is only 58 years of age, remains in office until age 65. Furthermore, the shareholder loss will be even greater if lower level managers also earn above-market compensation, if managers consume excess

¹⁵ The board composition and ownership variables are excluded from the year 0 regression to facilitate estimates of the dollar value of the change in excess compensation, since these variables are not available after year 0.

¹⁶ The maximum values for the ratios of Δ excess salary and bonus/market equity and Δ excess total compensation/equity are 0.68 percent and 0.80 percent, suggesting that the above-market compensation received by ATA firm CEOs can be quite large. However, relatively few ATA firm CEOs receive above-market compensation of this magnitude. The ratios of Δ excess salary and bonus/market equity and Δ excess total compensation/market equity are above 0.20 percent in 7.5 percent and 11.7 percent, respectively, of the cases.

Table IV

Excess CEO Compensation at Firms Adopting Fair Price and Supermajority Amendments and at Control Firms

Excess CEO compensation (EC) at firms that adopted fair price or supermajority charter amendments between 1978 and 1987 and at control firms matched by 4-digit Standard Industrial Classification (SIC) industry and total assets. EC is calculated as the difference between actual compensation and the compensation predicted by a regression model that controls for firm size (book assets) and performance (industry-adjusted EBIT/assets and stock returns), the ratio of book assets to the market value of assets, and the number of years the CEO has been a director. The dependent variable is the natural log of CEO compensation. CEO compensation is defined as salary plus bonus for all years except year 0a. Year 0a compensation includes the value of options granted as estimated using a modified Black-Scholes model. Year 0 is the fiscal year preceding antitakeover charter amendment (ATA) adoption. All compensation is deflated to 1978 dollars using the Consumer Price Index. Negative dollar amounts are in parentheses.

	Year Relative to Fair Price or Supermajority Charter Amendment Adoption				
	Year 0	Year 0a	Year 1	Year 2	Year 3
Panel A: ATA Firm CEO Excess Compensation					
Mean EC	\$40,637	\$111,082	\$61,404	\$56,149	\$77,876
Median EC	\$17,896	\$ 32,297	\$19,435	\$40,269	\$68,805
<i>t</i> -statistic for test of null that mean EC = 0;	3.582	3.600	3.089	4.025	3.862
Two-tailed <i>p</i> -value	(0.000)	(0.000)	(0.002)	(0.000)	(0.000)
Number of observations with EC > 0	62	42	45	49	35
Number of observations with EC < 0	37	32	29	21	20
Sign test <i>p</i> -value	(0.012)	(0.245)	(0.063)	(0.001)	(0.043)
Median ratio of EC divided by compensation	0.104	0.140	0.116	0.133	0.147
Panel B: Control Firm CEO Excess Compensation					
Mean EC	\$10,652	\$23,943	\$ 1,898	\$ 3,006	(\$ 1,016)
Median EC	(\$ 9,046)	(\$25,602)	(\$23,977)	(\$23,691)	(\$42,392)
<i>t</i> -statistic for test of null that mean EC = 0;	0.886	0.889	0.124	0.199	-0.041
Two-tailed <i>p</i> -value	(0.375)	(0.373)	(0.901)	(0.842)	(0.967)
Number of observations with EC > 0	47	29	26	29	22
Number of observations with EC < 0	52	45	48	41	33
Sign test <i>p</i> -value	(0.615)	(0.063)	(0.011)	(0.151)	(0.138)
Median ratio of EC divided by compensation	-0.034	-0.180	-0.161	-0.159	-0.146
Panel C: ATA Firm CEO Excess Compensation Less Matching Control Firm CEO Excess Compensation					
Mean difference in EC	\$29,985	\$87,139	\$59,506	\$53,143	\$78,892
Median difference in EC	\$20,134	\$24,635	\$33,438	\$22,517	\$33,906
<i>t</i> -statistic for test of null hypothesis that the mean difference in EC equals 0;	2.482	2.616	2.317	2.995	2.612
Two-tailed <i>p</i> -value	(0.013)	(0.009)	(0.020)	(0.003)	(0.009)
Number of observations with					
ATA firm CEO EC > control firm CEO EC	62	48	46	40	34
ATA firm CEO EC < control firm CEO EC	37	26	28	30	21
Sign test <i>p</i> -value	(0.012)	(0.011)	(0.036)	(0.232)	(0.080)
Median ratio of difference in EC divided by ATA firm CEO compensation	0.083	0.167	0.136	0.136	0.166

perquisites, and/or if managers make other self-serving investment and operating decisions.

B.4. CHANGES IN THE LEVEL OF EXCESS COMPENSATION

The evidence in Tables III and IV indicates that ATA firm CEOs earn above-market compensation in the year prior to ATA adoption, and that this above-market compensation persists in the three subsequent years. If managers of ATA-adopting firms are entrenching, the protection that antitakeover measures provide may enable them to extract even higher levels of above-market compensation. To test this proposal, the change in above-market compensation between year 0 and years 1, 2, and 3 is computed.

Table V reports evidence that the level of above-market compensation received by ATA firm CEOs increases during the three years following the adoption of the amendment. The average and median increases during this period are \$49,114 and \$41,962, respectively, in 1978 dollars (see Panel C). Both of these figures are statistically significant. ATA firm CEOs not only earn above-market compensation when they propose the antitakeover measures, they also appear to use the added protection these measures provide to further increase the relative level of their compensation.¹⁷

C. Other Evidence

The data indicate that the ATA and control firms differ on dimensions other than the number of golden parachutes and CEO compensation. For instance, Table II shows that, on average, ATA firms exhibit stronger accounting performance prior to the ATA adoption and have a higher percentage of outside directors.¹⁸ These differences provide additional insights concerning motivations for the adoption of ATAs and possibly for the timing of the proposal announcements. However, this evidence, by itself, cannot be used to distinguish between the *entrenchment* and *efficient compensation contracting hypotheses*.

¹⁷ Evidence of increasing relative compensation from a direct comparison of the magnitude of the ATA dummy coefficients in Table III may be biased since different samples are used to estimate each of the models. The potential for such bias is examined by estimating the Year 0, 1, 2, and 3 models in Table III using only the matched-pairs for which data are available in all four years. The ATA dummy coefficient estimates are significant at the 10 percent level in all of these models and are of similar magnitude to those in Table III. The ATA dummy coefficient estimates are 0.1746, 0.2588, 0.2187, and 0.3069 in these four models.

¹⁸ A multivariate test of the difference in ATA and control firm accounting performance during the year preceding the ATA proposal suggests that the performance difference is not caused by a spurious relation with CEO compensation or another variable in Table II. The test is conducted by estimating a cross-sectional logit regression in which the dependent variable equals one for ATA firms and zero otherwise and the independent variables include all variables in Table II, except book assets, plus total CEO compensation. The coefficient estimate for the EBIT/book assets ratio, 6.0635, is significant at the 2 percent level. The evidence from the logit regression is less clear for the difference in board composition. The coefficient estimate for board composition is only significant when CEO fractional share ownership is held out of the regression.

Table V

Change in Excess CEO Compensation following Fair Price and Supermajority Amendment Adoption

Change in excess CEO compensation (ΔEC) during the one, two, and three year periods following the adoption of fair price or supermajority charter amendments at firms that adopted such amendments between 1978 and 1987 and at control firms matched by 4-digit Standard Industrial Classification (SIC) industry and total assets. EC is calculated as the difference between actual compensation and the compensation predicted by a regression model that controls for firm size (book assets) and performance (industry-adjusted EBIT/assets and stock returns), the ratio of book assets to the market value of assets, and the number of years the CEO has been a director. The dependent variable is the natural log of CEO compensation. CEO compensation is defined as salary plus bonus. Year 0 is the fiscal year preceding antitakeover charter amendment (ATA) adoption. All compensation is deflated to 1978 dollars using the Consumer Price Index.

	Post Fair Price and Supermajority Charter Amendment Adoption Period		
	Year 0 to Year 1	Year 0 to Year 2	Year 0 to Year 3
Panel A: Change in ATA Firm CEO Excess Compensation			
Mean ΔEC	\$20,741	\$18,823	\$34,237
Median ΔEC	(\$ 147)	\$19,898	\$11,179
<i>t</i> -statistic for test of null that mean $\Delta EC = 0$;	1.474	1.655	2.759
Two-tailed <i>p</i> -value	(0.141)	(0.098)	(0.006)
Number of observations with $\Delta EC > 0$	36	39	28
Number of observations with $\Delta EC < 0$	36	27	24
Sign test <i>p</i> -value	(1.000)	(0.140)	(0.579)
Median ratio of ΔEC by year 0 compensation	0.001	0.061	0.063
Panel B: Change in Control Firm CEO Excess Compensation			
Mean ΔEC	(\$12,811)	\$1,780	(\$14,877)
Median ΔEC	(\$ 9,059)	(\$2,549)	(\$16,027)
<i>t</i> -statistic for test of null that mean $\Delta EC = 0$;	-1.059	0.2042	-0.722
Two-tailed <i>p</i> -value	(0.289)	(0.838)	(0.470)
Number of observations with $\Delta EC > 0$	26	32	19
Number of observations with $\Delta EC < 0$	46	34	33
Sign test <i>p</i> -value	(0.018)	(0.806)	(0.052)
Median ratio of ΔEC by year 0 compensation	-0.032	-0.016	-0.113
Panel C: Difference in Change in ATA Firm CEO Excess Compensation and Change in Matching Control Firm CEO Excess Compensation			
Mean difference in ΔEC	\$33,552	\$17,043	\$49,114
Median difference in ΔEC	\$15,198	\$13,545	\$41,962
<i>t</i> -statistic for test of null hypothesis that the mean difference in ΔEC equals 0;	1.507	1.311	1.863
Two-tailed <i>p</i> -value	(0.132)	(0.190)	(0.062)
Number of observations with			
ΔEC for ATA firm CEO $>$ ΔEC for control firm CEO	44	40	34
ΔEC for ATA firm CEO $<$ ΔEC for control firm CEO	28	26	18
Sign test <i>p</i> -value	(0.059)	(0.085)	(0.027)
Median ratio of difference in ΔEC divided by ATA firm year 0 compensation	0.085	0.054	0.184

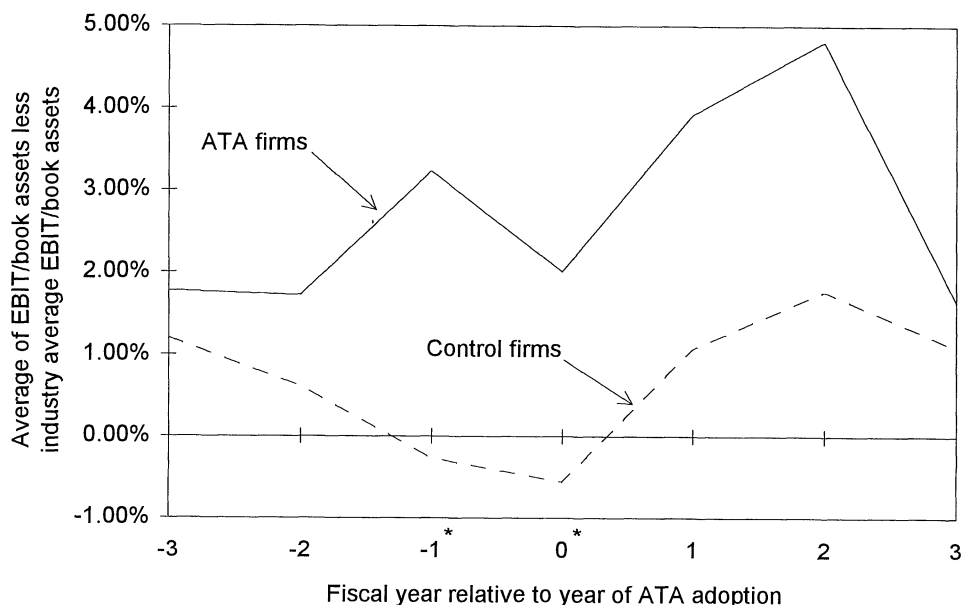


Figure 1. Performance of ATA and control firms. An asterisk next to the fiscal year indicates that the difference between the ATA and control firms is significant at the 5 percent level.

The relatively strong performance of the ATA firms reported in Table II is consistent with both hypotheses. On one hand, managers may take advantage of strong short-term performance to obtain approval for measures that facilitate entrenchment. Alternatively, the performance evidence may reflect a tendency on the part of firms to adopt antitakeover measures as part of long-term contracts aimed at retaining good managers.

The accounting performance of the ATA and control firms is examined for a seven-year period surrounding the ATA adoptions for evidence that the adoptions coincide with temporarily superior performance. Figure 1 illustrates the mean performance of the ATA and control firms during this period. It can be seen that the relative performance of the ATA firms does improve one year prior to the ATA adoption and declines three years after. This is consistent with the entrenchment argument. However, since the mean performance of the ATA firms exceeds that of the control firms throughout the seven-year period, it is not possible to rule out the argument that the ATAs are adopted as part of long-term contracts aimed at retaining strong managers. Furthermore, the decline in performance three years after the adoption is also consistent with the long-term contracting theory described by DeAngelo and Rice (1983). This drop in performance may reflect the acceptance of attractive long-term investments that are initially unprofitable.

The relatively high percentage of outside directors on ATA firm boards is somewhat surprising in view of the compensation evidence. If outside directors are better monitors than inside directors, they should make it more difficult for

managers to gain approval for antitakeover measures that only facilitate entrenchment. One possible explanation for this evidence is that the differences in the mean and median board composition for the ATA and control firms are not economically significant, since a simple majority of board seats may be sufficient for outsiders to exercise control. However, a comparison of the number of ATA and control firm boards that have simple outside majorities reveals that ATA firms are also more likely to have a majority of outside directors. Eighty-nine percent of ATA boards have outside majorities, while the corresponding figure for control firms is only 78 percent (z -statistic for difference in proportions is 2.506, $p = 0.012$). An alternative explanation for the board composition evidence is that, while antitakeover measures enable managers to expropriate shareholder wealth, they may also benefit shareholders in some way other than that proposed by Knoeber (1986). This second explanation is consistent with the firm performance evidence.

V. Conclusions

This study examines CEO compensation contracts for evidence on the motivations underlying the adoption of antitakeover charter amendments. Evidence regarding the ability of the firms with ATAs to deter takeover bids is examined first. This evidence indicates that ATAs are generally adopted at the beginning of a concerted effort to deter takeovers. These efforts appear to be successful; firms that adopt ATAs receive significantly fewer takeover bids than do control firms in the three years subsequent to the ATA's adoption.

Evidence from compensation contracts is consistent with the hypothesis that antitakeover amendments are adopted to entrench managers. ATAs are proposed by CEOs who, on average, will benefit from the protection these amendments provide for above-market compensation. Additionally, the mean level of above-market compensation received by ATA firm CEOs increases significantly following ATA adoption.

The above-market compensation received by ATA firm CEOs at the time of ATA adoption is inconsistent with the theory that ATAs are adopted as part of implicit compensation arrangements which provide management with low direct and high deferred compensation. Additionally, evidence on the frequency of golden parachutes suggests that they are not used as substitutes for ATAs to ensure that deferred compensation will be paid. In fact, the evidence indicates that ATA firm CEOs are twice as likely as control firm CEOs to be protected by golden parachutes.

The evidence in this article suggests that antitakeover measures reduce shareholder wealth by reducing takeover likelihoods and entrenching managers. This raises the question of why few event studies report significant stock price declines around the announcement of ATA proposals. There are two possible explanations. First, benefits from antitakeover measures, other than that proposed by Knoeber (1986), may offset the wealth lost through entrenchment. Second, event studies may not accurately measure the effects of ATA proposals on shareholder wealth. For instance, other information disclosed in

proxy statements may contaminate measured returns. Evidence from research that examines specific costs and benefits of ATAs can supplement the event study evidence in helping us understand how shareholder wealth is affected by these amendments.

REFERENCES

- Agrawal, Anup, and Ralph A. Walkling, 1994, Executive careers and compensation surrounding takeover bids, *The Journal of Finance* 49, 985–1014.
- Ambrose, Brent W., and William L. Megginson, 1992, The role of asset structure, ownership structure, and takeover defenses in determining acquisition likelihood, *Journal of Financial and Quantitative Analysis* 27, 575–590.
- Bhagat, Sanjai, and Richard H. Jefferis, 1991, Voting power in the proxy process: The case of antitakeover amendments, *Journal of Financial Economics* 30, 193–225.
- Black, Fischer, and Myron Scholes, 1973, The pricing of options and corporate liabilities, *Journal of Political Economy* 81, 637–659.
- Brickley, James A., Jeffrey L. Coles, and Rory L. Terry, 1994, Outside directors and the adoption of poison pills, *Journal of Financial Economics* 32, 195–221.
- Brickley, James A., and Christopher M. James, 1987, The takeover market, corporate board composition, and ownership structure: The case of banking, *Journal of Law and Economics* 30, 161–180.
- Byrd, John W., and Kent A. Hickman, 1992, Do outside directors monitor managers? Evidence from tender offer bids, *Journal of Financial Economics* 32, 195–221.
- Cannella, Albert A., Donald R. Fraser, and D. Scott Lee, 1995, Firm failure and managerial labor markets: Evidence from Texas banking, *Journal of Financial Economics* 38, 185–210.
- Comment, Robert, and G. William Schwert, 1995, Poison or placebo? Evidence on the deterrence and wealth effects of modern antitakeover measures, *Journal of Financial Economics* 39, 3–43.
- DeAngelo, Harry, and Edward M. Rice, 1983, Antitakeover charter amendments and shareholder wealth, *Journal of Financial Economics* 11, 329–360.
- Gaver, Jennifer, and Kenneth Gaver, 1993, Additional evidence on the association between the investment opportunity set and corporate financing, dividend, and compensation policies, *Journal of Accounting and Economics* 16, 125–160.
- Gilson, Stuart C., 1989, Management turnover and financial distress, *Journal of Financial Economics* 25, 241–262.
- Jarrell, Greg A., and Annette B. Poulsen, 1987, Shark repellents and stock prices: The effects of antitakeover amendments since 1980, *Journal of Financial Economics* 19, 127–168.
- Jensen, Michael C., and William H. Meckling, 1976, Theory of the firm: Managerial behavior, agency costs, and ownership structure, *Journal of Financial Economics* 3, 305–360.
- Jensen, Michael C., and Kevin J. Murphy, 1990, Performance pay and top-management incentives, *Journal of Political Economy* 98, 225–264.
- Knoeber, Charles R., 1986, Golden parachutes, shark repellents, and hostile tender offers, *American Economic Review* 76, 155–167.
- Lee, C. I., Stuart N. Rosenstein, Nanda K. Rangan, and Wallace N. Davidson III, 1992, Board composition and shareholder wealth: The case of management buyouts, *Financial Management* 21, Spring, 58–72.
- Linn, Scott C., and John J. McConnell, 1983, An empirical investigation of the impact of “antitakeover” amendments on common stock prices, *Journal of Financial Economics* 11, 361–399.
- Mayers, David, and Clifford W. Smith, Jr., 1992, Executive compensation in the life insurance industry, *Journal of Business* 65, 51–74.
- McWilliams, Victoria B., 1990, Managerial share ownership and the stock price effects of antitakeover amendment proposals, *Journal of Finance* 45, 1627–1640.
- Merton, Robert C., 1973, Theory of rational option pricing, *Bell Journal of Economics and Management Science* 4, 141–183.

- Meulbroek, Lisa K., Mark L. Mitchell, J. Harold Mulherin, Jeffry M. Netter, and Annette B. Poulsen, 1990, Shark repellents and managerial myopia: An empirical test, *Journal of Political Economy* 98, 1108–1117.
- Murphy, Kevin J., 1985, Corporate performance and managerial remuneration: An empirical analysis, *Journal of Accounting and Economics* 7, 11–42.
- Pound, John, 1987, The effects of antitakeover amendments on takeover activity: Some direct evidence, *Journal of Law and Economics* 30, 353–367.
- Rosenbaum, Virginia K., 1990, *Corporate takeover defenses 1990* (Investor Responsibility Research Center, Washington, DC).
- Shleifer, Andrei, and Robert W. Vishny, 1986, Large shareholders and corporate control, *Journal of Political Economy* 95, 461–488.
- Smith, Clifford, and Ross Watts, 1992, The investment opportunity set and corporate financing, dividend, and compensation policies, *Journal of Financial Economics* 32, 263–292.
- Sias, Richard W., Laura T. Starks, and Seha M. Tinic, 1995, Management compensation, firm characteristics, and antitakeover amendments, Working paper, The University of Texas at Austin.
- Stein, Jeremy C., 1988, Takeover threats and managerial myopia, *Journal of Political Economy* 96, 61–80.
- Stulz, René M., 1988, Managerial control of voting rights: Financing policies and the market for corporate control, *Journal of Financial Economics* 20, 25–54.
- Walkling, Ralph A., and Michael S. Long, 1984, Agency theory, managerial welfare, and takeover bid resistance, *Rand Journal of Economics* 15, 54–68.
- Weisbach, Michael S., 1988, Outside directors and CEO turnover, *Journal of Financial Economics* 20, 431–460.
- Williamson, Oliver E., 1975, *Markets and hierarchies: Analysis and antitrust implications* (The Free Press, New York).