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This paper focuses on the widely held views that: (a) antitakeover provisions (ATPs) increase agency costs, thereby reducing firm value; and (b) firms going public minimize agency costs, thereby maximizing firm value. We show that these views cannot comfortably co-exist: ATPs are common in a sample of IPO-stage charters. Moreover, ATP use is not explained by two efficiency explanations of

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ATP use with theoretical support -- target firms' need for bargaining power when a bid is made and the threat of managerial myopia. Rather, we find that antitakeover protection is used to protect management when takeovers are most likely and management performance most transparent. ATP use, however, is uncorrelated with a proxy for high private benefits.

Key Words: Takeovers, Corporate Governance

JEL Classification: G30; G32

Do IPO Charters Maximize Firm Value?

Antitakeover Protection in IPOs

1. Introduction

This paper focuses on the intersection of two widely held views: that antitakeover charter and bylaw provisions (ATPs) are generally inefficient; and that charters and bylaws adopted at the IPO stage establish efficient governance structures. We examine ATPs in the charters and bylaws of firms going public and question whether these two views can comfortably co-exist.

It is commonly accepted that takeover defenses create agency costs for public firms. If protected by an ATP, management may fend off wealth-creating takeovers, extract above market compensation and entrench itself at shareholders' expense. These agency costs reduce firm value. This view is supported by evidence collected over the past two decades. After a firm adopts an ATP, takeovers become less likely and managers increase their own pay (Borokhovitch, Brunarski, and Parrino, 1997) and also reduce the firm's debt levels, thereby increasing their discretion over the firm's cash flows (Garvey and Hanka, 1999). As a result of the increased agency costs, the firm's value typically declines (Karpoff and Malatesta, 1989; Jarrell and Poulsen, 1987).

It is also widely believed that firms going public reduce such prospective agency costs to maximize the firm's value (Jensen and Meckling, 1976). Initial shareholders should establish governance structures to monitor management and bond its subsequent fidelity because doing so will increase the value of the firm. Thus, if ATPs increase agency costs, firms going public should generally avoid them and prevent management from entrenching itself once shares are dispersed and agency problems arise. Easterbrook and Fischel (1991) express this expectation as a statement of fact: "[F]irms go public in easy to acquire form: no poison pill securities, no supermajority rules or

staggered boards. Defensive provisions are added later, a sequence that reveals much [about the inefficiency of takeover defenses.]”¹ Based on their view, one would expect firms going public, not only to abjure antitakeover provisions, but to precommit to refrain from adopting ATPs by charter amendment later on (with supermajority voting requirements, for example).

Theorists have shown that ATPs can have benefits that offset the increased agency costs. Stulz (1988) explains that an ATP can enhance management’s bargaining power when negotiating with a bidder, and thereby allow target shareholders to gain a larger premium if an acquisition occurs. If, for a particular firm, the gain in the expected premium outweighs the cost of management entrenchment, an ATP would be efficient. ATPs may therefore be adopted by firms that need bargaining power (the Bargaining Power Hypothesis). Second, as Stein (1988, 1989) and others explain, ATPs can reduce managerial myopia. A firm that expects myopia to be a problem may therefore adopt an ATP when it goes public (the Managerial Myopia Hypothesis). Finally, the presence of private benefits may explain the use of ATPs. Although Grossman and Hart (1988) and Harris and Raviv (1988) show that high private benefits should generally not lead to the use of dual class stock, or by extension other ATPs, their models allow for the possibility that ATPs will appear if private benefits are sufficiently large and if an incumbent expects to be unable to finance a competing bid if a hostile bid is made (the Private Benefits Hypothesis).

Surprisingly, no one has examined initial charters to see whether they conform to the hypotheses above. This paper does.² We examine the charter and bylaws of 310 firms going public to see whether ATPs are in place at the time of the IPO, and if so, why firms have them. We find ATPs are common; the strongest are adopted by almost half the firms in our sample. ATPs are common even among firms controlled by venture capitalists and leveraged buyout specialists -- presumably sophisticated, investors with the incentive and expertise to maximize share prices. Moreover, we find that no firms commit to avoid subsequent ATPs (an “anti-ATP”) and few even opt out of state laws that establish impediments to takeovers despite the fact that these statutes have been shown to reduce share value. Under the assumption that IPO-stage charters maximize firm value, this suggests ATPs

¹ Easterbrook and Fischel, along with Schwartz (1986) and other legal academics taking a normative approach, go so far as to advocate a legal rule that target management be required to remain passive in response to a takeover bid.

² Field and Karpoff have contemporaneously undertaken a study of IPO charters. Their study focuses on private benefits of control and the relationship between firm quality and the use of ATPs. (Field and Karpoff, 1999). [Coates]

are often efficient.

We next look for an efficiency explanation for the presence of ATPs. We test the three efficiency hypotheses described above: the Bargaining Power Hypothesis, the Rational Myopia Hypothesis, and the Private Benefits Hypothesis. We find that none of these hypotheses explains the adoption of ATPs at the IPO stage. To the contrary, we find that ATPs are adopted when the first two theories suggest they are *least* efficient -- that is, when the need for bargaining power is relatively low and myopia is least problematic. Instead, managers' interests appear to motivate the use of ATPs at the IPO stage: ATPs are more common where takeovers are most frequent and management performance most transparent. We do not find, however, that the use of ATPs is associated with the presence of high private benefits.

In sum, our results indicate that ATPs are common at the IPO stage, but that existing efficiency theories do not explain their adoption. Instead, managerial entrenchment seems to explain ATP use in an IPO. These findings cast doubt on the view that charter terms adopted at the IPO stage maximize firm value. We are nonetheless left with a puzzle: Why do some, but not all, firms adopt strong ATPs?

2. Antitakeover provisions

2.1. Charter provisions that regulate exposure to the market for corporate control

By choosing a state of incorporation and by selecting charter and bylaw terms, a firm going public can regulate its exposure to the market for corporate control in three primary ways. First, the firm's charter or bylaws may include ATPs. Common ATPs that constitute significant barriers to hostile acquisitions include: (a) dual class stock giving management voting control; (b) a classified board; and (c) prohibition of shareholder voting by written consent³ coupled with prohibitions on shareholders calling special shareholders meetings. Dual class stock can make a hostile acquisition impossible. When combined with a poison pill--which management can adopt at any time without shareholder approval--a classified board can impose up to a two-year delay on an acquiror, and a

³In some states, the default rule is to permit shareholder action by written consent and in others, the default rule is to prohibit it. Similar variation in default rules exist with respect to shareholders' ability to call a special meeting. Obviously, in the latter states, silence in a charter would be an impediment to a takeover, and in the former, an explicit prohibition would be needed. We treat these situations as being identical.

prohibition on voting by written consent or at a special meeting can impose up to a one-year delay. The effect of these provisions is well understood by management. Since the mid-1980s, the management of many publicly held corporations have proposed amending their charters to include ATPs, and institutional investors have mounted campaigns to stop them from doing so. Appendix A describes these ATPs in detail along other ATPs that appear in our sample.

Second, a charter may increase the firm's exposure to takeovers by opting out of a state anti-takeover statute. More than 40 states have adopted an antitakeover law that covers firms unless the firm elects otherwise. Some states, including Pennsylvania and Ohio, erect substantial barriers to takeovers, requiring bidders to disgorge short-term profit and allowing target management to resist a bid that might harm employees, creditors, or communities. Failure to include an opt-out term is thus equivalent to the inclusion of an explicit ATP in a firm's charter.

Third, a charter may contain a provision that makes a firm easy to acquire by affirmatively limiting the authority of the board of directors to defend against a takeover bid and by limiting its ability to add an ATP to its charter in the future (an "anti-ATP"). A charter could, for instance, prohibit the board from adopting a poison pill or it could limit the terms of permissible pills. It could also require a supermajority shareholder vote to add specified ATPs to its charter.

These provisions, of course, have an impact only if there are no controlling shareholders. If management holds a controlling block of stock, it can resist an acquisition offer with or without an ATP. Conversely, if an investor such as a venture capitalist has a controlling block of stock, management would have difficulty opposing shareholder interests regardless of whether there is a formal barrier to shareholder voting. In the period following an IPO, management, pre-IPO investors, or both typically continue to hold large blocks of stock. Over the few years following the IPO, however, these blocks are commonly diluted by sales of shares or additional equity issues. Thus the importance of ATPs at the IPO stage is prospective. It would be incorrect, however, to discount their cost or benefit to shareholders, because the size of the firm and hence the dollar value of the ATP's impact will grow during this time.

We note that we do not consider the adoption of a poison pill to be an ATP. Since 1985, managers of all firms have been free to adopt a pill quickly, without shareholder approval, whether or

not a hostile bid has been made or is imminent. Thus, in a sense, all firms have poison pills all the time -- even managers of firms without pills can be expected to quickly adopt one when needed. The presence or absence of a pill at any given time, therefore, is not useful data. For this reason, we do not consider poison pills ATPs in this study. Consistent with the above, a negligible number of firms in our sample adopted poison pills at the time they went public.

2.2. *Competing theoretical views of ATPs*

The widely held view of takeovers is that they move corporate assets to higher value uses and to more efficient management, and that the threat of a hostile acquisition creates a salutary disciplinary effect on incumbent management. Mechanisms, such as ATPs, that impede takeovers are commonly viewed as entrenching of incumbent management to the detriment of shareholders.

On the other hand, ATPs may offer competing advantages from the perspective of target shareholders. First, shareholders face a collective action problem in responding to a tender offer, and in the absence of coordination, may tender their shares at a price that is lower than the bidder's reservation price. As DeAngelo and Rice (1983) and Stulz (1988) explain, an ATP can mitigate this problem by inducing bidders to negotiate with the target's board. Where bidders face actual or potential competition in bidding for a target, this collective action problem is absent because competition among bidders will force bids higher and allow the target to gain a greater share of the surplus. For firms for which there is only one bidder and no potential bidders, however, an ATP might produce a higher bid. This explanation of ATPs is referred to as the Bargaining Power Hypothesis.

Second, ATPs may be enable a firm to invest in valuable long-term projects whose value may not be reflected in the firm's share price. Or, conversely, without an ATP, a firm's management may be rationally myopic in its investment decisions. Stein (1988, 1989) models this in terms of asymmetric information and costly signaling. Shleifer and Vishny (1990) model it in terms of the costly arbitrage. DeAngelo and Rice (1983), Knoeber (1986), and Borokhovich, Brunarski & Parrino (1997) reach the same result by focusing on executive compensation. We refer to this group of explanations for ATPs as the Rational Myopia Hypothesis.

Third, the presence of private benefits may explain the use of ATPs. Grossman and Hart

(1988) and Harris and Raviv (1988) have shown that management's private benefits create conflicts of interests with shareholders and that one share-one vote voting structure minimizes the resulting agency costs. The logic of their model applies to ATPs as well; firm value is maximized by preventing management from taking actions that preserve its private benefits without also enhancing share values. Nonetheless, these models assume that incumbent managers will be able to finance competing bids when rivals make bids. If an incumbent expects to be unable to do so, he may adopt an ATP to preserve his private benefits, and it is potentially efficient to do so if the incumbent's private benefits are large relative to those of potential rivals. We refer to this explanation as the Private Benefits Hypothesis.

2.3. *Prior empirical work*

The results of prior empirical studies are generally consistent with the conclusion that ATPs, on average, are used to entrench management at shareholders' expense. Event studies have been mixed, but the most recent studies find that ATPs, on average, have negative impacts on share prices. Jarrell and Poulsen (1987) and Baghat and Jefferis (1991) find that companies' share values tend to decline when firms amend their charters to adopt an ATP.⁴ McWilliams (1990) and McWilliams and Sen (1997) find that the effect of ATP amendments depends on the extent of inside ownership and control. The greater inside ownership and control are, the more negative the impact of an ATP. At low levels of inside ownership and control, however, they find that ATPs have a positive impact on share prices. Comment and Schwert's (1997) findings that poison pill adoption does not significantly deter bids or affect share prices are not inconsistent with this evidence, given that all firms can quickly and easily adopt poison pills.

Event studies of charter amendments provide an imperfect measure of the potential value of an ATP. In addition to the mixed signal conveyed by the adoption of any takeover defense, ATP adoption by amendment is subject to a selection bias toward adoption by managers eager to entrench

⁴ DeAngelo and Rice (1983) and Linn and McConnell (1983) find statistically insignificant negative abnormal returns surrounding ATP amendments, but they use sample periods that predate the courts' approval of the poison pill. Consequently, these studies do not incorporate one of the most potent antitakeover combinations used since the mid-1980s: a classified board coupled with a poison pill. The other studies straddle the time at which the pill was approved; none covers only the period since pills were permissible and widely used.

themselves. Even if ATPs can be beneficial for shareholders in some circumstances, those instances in which they are beneficial could well be swamped by instances in which they are adopted by self-serving managers taking advantage of shareholders' collective action problem in opposing these amendments.

Event studies that analyze the impact of state antitakeover statutes avoid the problems of mixed signal and selection bias, but they have other problems. The effects of these statutes are difficult to capture statistically because of uncertainty regarding the timing of the market's awareness of their impending passage. In addition, because a state's statute applies to all firms in the state, if the statute is beneficial for some and detrimental for others, an event study will at best measure the average impact. Finally, these statutes vary widely in the extent to which they deter takeovers. Therefore, care must be exercised in making broad claims regarding their effects. Collins, Black and Wanesley (1993) and Szewczyk and Tsetsekos (1992) found that Pennsylvania's antitakeover statute, which includes the most severe deterrents to would-be acquirors, had significant negative effects on Pennsylvania corporations that did not opt out. Studies of other state's statutes are more mixed. Ryngaert and Netter (1988) found that the Ohio statute had a significant negative impact on the share prices of Ohio corporations. Margotta, McWilliams and McWilliams (1990), however, used different event windows, included firms with controlling shareholders, and found that the Ohio statute had no significant effect. Schumann (1988) found that the New York statute had a significant negative impact, but Pugh and Jahera (1990) found that it did not. Karpoff and Malatesta (1989) studied 26 state antitakeover statutes and found that, in the aggregate, the enactment of these statutes in the aggregate was associated with significant declines in share prices, particularly for firms without prior ATPs. Consistent with these results, Pound (1987) found that ATPs deter takeover bids without yielding higher premiums, and that management is more likely to resist a bid if its firm has an ATP. Borokhovich, Brunarski and Parrino (1997) confirm Pound's finding that ATPs deter bids.

If ATPs promote long-term investment, one would expect the adoption of an ATP to be associated with increases in research and development and capital expenditures. Three studies have tested this hypothesis. Meulbroek, Mitchell, Mulherin, Netter & Poulsen (1990) find that, following the adoption of an antitakeover amendment, research and development expenditures declined.

Johnson and Rao (1997) report similar findings. Pugh, Page & Jahera (1992), on the other hand, finds that R&D and capital expenditures rise after an ATP is adopted.

Finally, if ATPs are part of an efficient incentive-pay package, one would expect managers of firms with ATPs to have lower salaries and lower total compensation than managers of firms without ATPs. Borokhovich, Brunarski & Parrino (1997) finds, however, that managers of firms with ATPs tend to receive higher salaries and more valuable stock options than managers without ATPs. Moreover, they find that, following the adoption of an ATP, managers' compensation increased at a greater rate than the compensation of managers at firms without ATPs.

In short, prior studies of ATPs adopted by charter amendment generally support the view that, on average, such provisions entrench management to shareholders' detriment. This does not exclude the possibility, however, that ATPs can be efficient in some situations. If, as is commonly assumed, IPO-stage charter terms are priced and therefore maximize firm value, we can investigate this possibility at the IPO stage without the confounding influences of selection bias and mixed signals that are present at the amendment stage. On the other hand, if we find that IPO-stage ATPs are adopted to entrench management, and that none of the efficiency hypotheses explain their use, one would have to question the view that IPO-stage charters are efficient.

3. Methodology and sample description

We sampled firms that went public between January 1, 1994 and July 1, 1997. We separately sampled three groups of firms: (a) those in which venture capitalists had invested prior to the IPO, (b) those in which leveraged buyout specialists had invested prior to the IPO, and (c) others. As discussed below, we expected that the first two groups of firms would most consistently adopt value-maximizing charters (Gertner and Kaplan, 1998) and therefore provide the most reliable indication of the value of ATPs. We therefore over-sampled these firms.

To draw a sample of firms controlled by venture capitalists, we randomly selected 125 firms identified by Securities Data Corporation (SDC) as having gone public with venture capital backing during our sample period. We confirmed that these are VC-backed firms by reference to *Pratt's Guide to Venture Capital Sources*. To draw a sample of firms controlled by LBO specialists, we

relied primarily on a Goldman Sachs report of equity offerings by major leveraged buyout funds (52 firms). We supplemented this list with reverse LBOs identified in the LEXIS/NEXIS M&A database (31 firms) and in SDC records (8 firms). We believe this total of 91 firms constitutes all firms that LBO specialists took public during the sample period. The sample of other firms consists of 125 firms drawn randomly from those IPOs that SDC recorded as not being VC, LBO- or MBO-related and not being spin-offs. We excluded from each sample firms that upon closer inspection were incorrectly identified. We also excluded non-U.S. firms, partnerships, real estate investment trusts, and bank holding companies because the underlying law governing the acquisition of these firms differs from that applicable to U.S. public corporations generally. This yielded a sample 310 firms, consisting of 106 firms with venture capital investment, 91 with LBO specialist investment, and 113 others. Table I displays data on the industry and financial characteristics of our sample firms. For some of the regressions below, our sample is smaller because we were unable to obtain necessary data.

For each firm, we used Disclosure, Inc.'s database of corporate filings to obtain copies of the prospectus, charter and bylaws filed in connection with the IPO. We read each of these documents and coded terms that affect the cost and time needed to complete a tender offer or proxy contest. We obtained financial data from Compustat and merger and acquisition data from SDC.

Table 1
Characteristics of sample firms

Data on industry and firm assets were obtained from Compustat. Data on capitalization and shares issued were obtained from SDC. Data on management ownership obtained from prospectuses. Figures for management ownership include executives of the firm and exclude outside directors, which at the IPO stage frequently include representatives of investors and therefore have interests different from those of managers. This data comes from sections of the prospectus that identify major shareholders and senior management. The full sample consists of 310 firms that went public between 1994-1997. Lower totals for financial data are due to missing data in SDC database.

Panel A: Distribution of firms across industries (percent)

<u>Industry (1-digit SIC)</u>	<u>VC</u>	<u>LBO</u>	<u>Other</u>	<u>Total</u>
Agriculture, forestry, fishing	.9%	0%	0%	0.3%
Mining, construction	1.0	1.1	1.8	1.3
Light manufacturing	12.3	17.6	8.0	12.3
Heavy manufacturing	33.9	27.5	31.0	31.3
Transportation, communications	8.5	8.8	8.8	8.7
Wholesale, retail trade	6.6	16.5	10.6	11.0
Finance, insurance, real estate	0	3.3	10.6	4.8
Services (SIC 70-79)	30.2	17.6	20.4	22.9
<u>Services (SIC 80-89)</u>	<u>5.7</u>	<u>7.7</u>	<u>8.8</u>	<u>7.7</u>
Total	106	91	113	310

Panel B: Mean Financial Characteristics

	<u>VC</u>	<u>LBO Fund</u>	<u>Other</u>	<u>All</u>
Market capitalization post-IPO (\$ million)	142.5	463.4	74.1	211.7
Total assets post-IPO year end (\$ million)	56.6	644.1	59.6	221.4
Percentage of shares sold in IPO	31%	36%	39%	35%
Secondary offering as percentage of total offering	12.8%	17.6%	7.6%	12.3%
CEO shareholdings pre-IPO				
Pre-IPO (percent)	15.1	8.7	34.2	20.3
Post-IPO percent	11.1	5.8	22.5	13.7
Top five managers' shareholdings				
Pre-IPO (percent)	26.3	13.0	53.5	32.5
Post-IPO (percent)	18.9	8.9	34.6	21.8
VC/LBO fund shareholdings				
Pre-IPO (percent)	51.0	70.6		
Post-IPO (percent)	34.9	45.2		

We over-sampled firms in which venture capitalists and leveraged buyout shops had invested for several reasons. The charters of these firms should best reflect well informed decisions regarding the impact of ATPs on share values. Venture capitalists and leveraged buyout specialists have expertise in structuring companies and taking them public, they are active participants in the market for corporate control, and they have incentives to employ value-maximizing governance structures. It is therefore unlikely that a takeover-related provision would find its way into one of their companies' charters as a result of an oversight or lack of understanding.

Second, we expect that the pattern of ATP use by these firms will be less influenced by idiosyncratic private benefits of control. Because venture capital and LBO funds sell their shares or distribute them to their investors within a few years following an IPO, and because they hold large blocks of shares though most of that period, ATPs would not be used to preserve venture capitalists' or LBO specialists' benefits of control. It is possible that these investors and the managers of their portfolio companies have a prior implicit agreements to adopt ATPs in order to preserve *the managers'* control benefits.⁵ Such an arrangement, in effect, would be an element of an overall management compensation package. If management of a particular firm wants the protection of an ATP, and the ATP's cost is expected to be reflected in the firm's share price, then one would expect negotiations between management and its VC or LBO fund to reflect the tradeoffs on each side between an ATP and other elements of management's compensation. Management would thus be confronted with an explicit price tag for an ATP (in contrast to an implicit, and perhaps unknown, one for a firm that is owned by management prior to the IPO). Especially when facing an explicit cost, it would be surprising to find management choosing an ATP over a golden parachute, which would presumably be less costly to shareholders. A strong ATP could deprive shareholders of all benefits of an acquisition, while a golden parachute could be calibrated to divide those benefits between shareholders and management.

Third, we expect that firms with venture capital and LBO fund investments can provide evidence of the impact management share ownership may have on the adoption of ATPs at the time of

⁵ Black and Gilson (1998) suggest that VC have an implicit agreement to return control to successful entrepreneurs by allowing portfolio companies to go public rather than being acquired. It is possible that they give entrepreneurs control over the post-IPO charter as part of such an agreement.

an IPO. When a firm without VC or LBO funding goes public, pre-IPO management typically retains a controlling block, making the firm invulnerable to a takeover, and an ATP therefore irrelevant for a period of time. In some of these companies, management sells its control block or allows it to be diluted quickly and on others management keeps its control block indefinitely. In firms with venture capital or LBO fund investment, however, these investors typically have control blocks and management does not. Moreover, venture capital and LBO funds' agreements with their investors require that they sell or distribute their shares in a firm within a few years following an IPO. Consequently, for these firms, we can be certain that share ownership will become dispersed, management will not hold a control block, and that the presence or absence of an ATP at the IPO stage will be meaningful.

4. Empirical analysis of ATPs in IPO firms.

4.1. Antitakeover provisions found

Our first step is to examine the extent to which firms go public with ATPs in place, but at the outset we note what we do not find. No firm limited the authority of its management to defend against a hostile bid. If initial charters are efficient and management resistance to a takeover bid is inefficient, one would expect the initial charter of at least some firms to limit management's authority to resist. Moreover, we find that it is uncommon for a firm to opt out of a state antitakeover statute. Only five percent of the firms in our sample did so.⁶

In contrast, we find that ATPs were widely adopted. Every firm in our sample adopted at least one, and on average firms adopted five different ATPs. Approximately, fifty percent of sample firms adopted one of the two strongest forms of takeover protection, dual class stock (6.4%) or a classified board (43.5%). These ATPs were also adopted by firms in 77 of the 111 3-digit SIC code industries represented in our sample.

Table 2 summarizes the ATPs contained in the charters and bylaws of our sample firms. ATPs were common in firms backed by venture capitalists and leveraged buyout specialists, as well as others. The most striking finding is the large number of classified (staggered) boards in all three types

⁶ To the extent that some state antitakeover statutes (including Delaware's) are superfluous to poison pills, a failure to opt out would have no effect unless coupled with a restriction on the use of poison pills.

of firm. Over 40 percent of the firms in each group have classified boards. When combined with a poison pill (which management can adopt at any time without shareholder approval) a classified board is the most powerful of the common defenses against a hostile bid. In order to acquire a target with a classified board and a poison pill, if management does not relent and the courts do not intervene, a hostile acquiror must mount two proxy contests at two annual meetings (rather than one in the case of a firm with an annually elected board). Such a delay is costly to a bidder, who must incur considerable expense while the target manager remains in control of the target. Other than to deter control changes, there is no reason for a firm to have a classified board.

In addition, while dual class stock is not common, it is present in a small number of firms. Dual class stock provides complete protection against a hostile bid and, like a classified board, has no justification except to ward off challenges for control. We coded a charter as having dual class stock only if managers had a class of stock that, standing alone, gave them a majority of votes in a company. If an investor, such as a VC or LBO fund, had such control we did not code the charter as providing dual class stock.

A substantial number of firms prevent shareholders from taking action between annual meetings by both preventing shareholders from calling special meetings and prohibiting shareholder voting by written consent. The effect of these restrictions is to force a bidder to wait until the target's next annual meeting, which in some cases can be more than one year off, to replace the target's board, redeem its poison pill, and proceed with a tender offer.

Table 2
Antitakeover provisions present in sample firms

Percentages of VC-backed, LBO fund-backed, and other IPO firms with certain takeover-related charter provisions. Data taken from prospectuses of 3[10] firms going public between 1994-1997, with missing data for some provisions.

Type of Provision	VC	LBO	OTHER	TOTAL
Dual class stock	2.8	6.6	9.7	6.4
Classified board	43.4	47.2	40.7	43.5
Shareholders cannot call special meeting or act by written consent*	23.6	33.2	15.9	24.5
Control share acquisition	9.4	5.5	18.6	11.6
Nonshareholder constituency	20.7	11.0	30.1	21.3
Business combination (including Delaware's)	81.9	85.9	79.1	82.0
Fair price	15.1	12.1	21.4	16.5
Limits on s/h nominations to board**	60.0	63.2	42.7	54.8
Limits on s/h access to agenda**	60.0	62.1	40.8	53.8
Blank check preferred stock	97.2	97.8	90.1	94.8
Percent Delaware companies opting out of business combination statute (§203)	1.4	12.5	3.6	6.2
Percent of non-Del. companies opting out of state antitakeover statutes	2.9	0	1.8	2.0
Total number of firms of each type	113	91	113	310

* These figures include firms that prohibit shareholders from calling a special meeting altogether. Even among companies in which shareholders are permitted to call a special meeting, there are commonly requirements that a specified percentage of outstanding shares (e.g. 25% or 50%) do so.

** These limits generally take the form of advance notice requirements (often 60 days and sometimes as many as 180 days) for shareholders to make board nominations or to place an item on the agenda of a shareholders meeting.

Fewer but still a substantial number of firms are governed by either nonshareholder constituency provisions or control share acquisition provisions. Of 66 firms governed by these provisions, 50 were incorporated in states with statutes containing these provisions and 16 had explicit provisions written into their charters. A nonshareholder constituency provision allows a board to resist a bid if it threatens to harm the interests of workers and other constituents of the firm. Since there will always be some constituent (other than management) for whom a takeover may be detrimental, these statutes give management expansive authority to resist a hostile bid that would benefit shareholders. Control share acquisition provisions establish a time-consuming process by which disinterested shareholders must vote to allow a hostile bid to go forward and can pose a serious barrier to a bidder.

Fair price and business combination provisions are common as well. A business combination provision delays an acquiror from merging with the target for a period of 2 to 5 years following an acquisition. Again, in most cases, they are provided by statute, but in some cases firms explicitly wrote these provisions into their charters. A fair price provision prevents an acquiror from making a coercive two-tier bid. Approximately 82 percent of firms are subject to a business combination provision. Most of these are Delaware firms subject to Delaware's statute. Only 6.25 percent of the Delaware firms opted out of Delaware's business combination statute. None of the four firms incorporated in Ohio or Pennsylvania opted out of their states' widely-criticized takeover provisions.

In short, ATPs are surprisingly common at the IPO stage in firms with and without investments from venture capitalists and LBO funds. Most ATPs are explicitly provided in firms' charters and bylaws, and others are provided by statute. In the latter case, firms are permitted to opt out but chose not to do so. The question that arises from these findings is why ATPs are so commonly adopted at the IPO stage. Are they adopted for efficiency reasons? The next sections analyze whether the use of ATPs is explained by theories positing that ATPs, under some conditions, can be efficient.

4.2. *Potential efficiency explanations*

In this section, we test whether the use of ATPs at the IPO stage is explained by any of the three efficiency hypotheses discussed above. These include the Bargaining Power Hypothesis, the Rational Myopia Hypothesis and the Private Benefit Hypothesis.

We use cumulative logit models with a four-level dependent variable that ranges from strong antitakeover protection to weak or no protection. The levels of protection are defined as follows: (a) the highest level includes either (i) dual class stock with voting control held by management or (ii) a classified board coupled with prohibitions on shareholder voting by written consent or at special meetings; (b) below that is classified board without such prohibitions on shareholder voting, (c) next is annually elected (nonclassified) board with prohibitions of shareholder voting by written consent or as special meetings; and (d) the lowest level of protection includes all others. The bottom tier of this dependent variable includes firms with different ATPs (all sample firms have at least one). All the ATPs in the bottom tier are weaker than those in higher tiers. We group them together in the same tier because there is no way to differentiate reliably among them with respect to the barrier they pose to a hostile bidder. We nonetheless experimented with alternative formulations at the lowest tiers and found that the results were unchanged. For each of the models included in this paper, we also fit dichotomous logit models using (a) classified board and (b) classified board or dual class stock as dependent variables. The results of those models, which we do not present here, were consistent with the cumulative logit models presented.

4.2.1 *The Bargaining Power Hypothesis*

One way an ATP can increase firm value is by enhancing the bargaining power of the firm's management when a bid is made, thereby extracting a higher price from the bidder. The impact of this increased bargaining power is ambiguous, as Stulz (1987) has shown, because the prospect of paying a higher price, or being thwarted entirely, may deter would-be bidders from making bids in the first place.⁷ The point is, however, that the ATP could enhance share value. We refer to this hypothesis as the Bargaining Power Hypothesis.

The bargaining power that an ATP confers, however, is most useful when a target firm has only one potential acquiror. If more than one party is potentially interested in acquiring a target firm, then actual or potential competition among them will force bid prices higher without an ATP. On

⁷ By bargaining power, we refer here as well to the setting introduced in Stulz (1987) in which management's control of shares elicits a higher bid simply because management has a higher opportunity cost of tendering and not because of its ability to bargain per se.

average, the more parties there are attempting to acquire companies in a particular industry, the more actual or potential competition there will tend to be for target firms in that industry, and the less a firm will need an ATP to enhance its bargaining power.⁸ Consequently, if the Bargaining Power Hypothesis explains the motivation for ATPs at the IPO stage, one would expect a negative relationship between the competitiveness of the market for corporate control in an industry and the adoption of ATPs by firms in that industry.

To test the Bargaining Power Hypothesis, we construct two alternative measures of potential competition among bidders for companies in a firm's industry: (a) the number of *parties* that attempted to make friendly or hostile acquisitions of firms in the industry in a given year (number of bidders); and (b) the number of friendly or hostile acquisition *attempts* for firms in the industry in a given year (number of bids). We combine friendly and hostile bids and bidders in these measures, first, because they are substitutes for one another; and second, because a common way for a target to respond to a hostile bid is to entice a friendly party to make a competing bid. A firm's industry is defined by its 3-digit SIC code. The two variables differ only in that the former excludes multiple attempts by a single bidder within a year. Using SDC data, we constructed these variables for each year over five-year periods surrounding the year of the IPO for each firm in our sample. Using data from CRSP, we scale each of these variables by the number of firms in a sample firm's industry that are traded on NYSE, AMEX, or NASDAQ. The periods begin two years prior to the year of the IPO and extend for two years following the year of the IPO. We extended the periods beyond the time of the IPO to take account of the likelihood that those who consider ATPs at the time of an IPO make partially forward looking judgments of takeover activity. Because this is an industry-level variable, we tested for clustering by 2- and 3-digit SIC industries. In each case, the dispersion parameter is slightly less than one, which indicates that there is no need to adjust the standard errors in the regressions below. The range of the number-of-bidders variable is 0 to .48 bidders per target-industry firm annually, the mean is .09 bidders, and the median is .08 bidders. The range of the number-of-bids

⁸ This is obviously not always going to be the case. Some targets may be attractive to only one party while other firms in the industry are attractive to others. Also, one party's reservation price may be much higher than that of the second-highest bidder (or potential bidder). In that case, an ATP could be valuable in extracting more surplus from the bidder. Nonetheless, given the potentially negative impact of ATPs, it is reasonable to expect that if they are used for bargaining power purposes, they will be less common in industries with an active takeover market.

variable is 0 to .64 per target-industry firm annually, the mean is .10, and the median is .08. If the Bargaining Power Hypothesis is correct, we would expect negative coefficients on these variables.

Table 3 displays the results of two cumulative logit regressions. The regression in Column 1 uses the number-of-bids variable, and the regression in Column 2 uses the number-of-bidders. Each regression estimates the relationship between competition among acquirors and the use of ATPs. For the reasons explained in Part I, we include a dummy variable for firms with venture capital investment and another dummy for firms with investment from leveraged buyout funds. In addition, we include a dummy variable indicating whether a firm's management has a controlling block of stock.⁹ We report results with a dummy for management ownership of 40 percent of outstanding shares or more, but in unreported regressions we used 20 percent, 30 percent, and 50 percent cutoffs and got the same results. A control block, if management intends to hold it indefinitely, is a substitute for a strong ATP and would render the presence or absence of an ATP irrelevant. Especially among firms that are not controlled by VCs or LBO funds, managers commonly hold large positions immediately following an IPO even if they plan to reduce those positions thereafter. Consequently, while the absence of a management control block following the IPO would be relevant to the impact of a classified board or dual class stock over time, the presence of such a block at the IPO stage has an ambiguous impact.

For each regression, we also include a dummy variable for firms in industries lying in the bottom decile in terms of our bidder competition measures. (We used the bottom fifteen percent as well and obtained essentially the same results.) The rationale for doing so is twofold. First, where the threat of a hostile takeover is negligible, the presence or absence of an ATP is irrelevant from any perspective. Neither investors nor shareholders should value it. As a result, the appearance of an ATP in the charters of such firms might be subject to considerable noise. Second, within some low range of takeover activity in an industry, the Bargaining Power Hypothesis implies that the value of takeover protection to shareholders of firms in that industry will actually increase. Where there is no takeover activity in an industry, and therefore a negligible chance of a hostile bid, there is no need for bargaining power and concomitantly no benefit to having an ATP. Where takeover activity in an

⁹ We define management as executives of the firm. We do not include directors because for companies at the IPO stage outside directors are commonly associated, formally or informally, with investors. For instance, VCs and LBO funds are frequently represented on boards. Moreover, the share ownership disclosed in a prospectus for directors with formal associations include the shares owned by the VC or LBO fund with which they are associated.

industry increases from this extreme, the potential to exert bargaining power begins to have value, and this value increases as the prospect of a hostile bid increases. The value of bargaining power continues to increase up to a point at which takeover activity is sufficiently high that a firm can expect to attract competing bids if a hostile bid is made. At that point, the need for bargaining power declines and the Bargaining Power Hypothesis implies that the use of ATPs will decline. Of course, we do not know where that point is, but we do know that target firms, on average, extract nearly 100 percent of the surplus arising out of a takeover (Jensen and Ruback, 1983, Jarrell, Brickley and Netter, 1988, Bhagatt, Sheifer and Vishny, 1990). We therefore know that few targets lack bargaining power vis-a-vis bidders, which means that at a fairly low point in the range of takeover activity, the value of an ATP for bargaining power purposes will decline.

These regressions indicate that bidder competition is significantly related to the use of ATPs, but that the impact is the opposite of what the Bargaining Power Hypothesis predicts. The coefficients on both the number-of-bids and the number-of-bidders variables are significant at the .005 level and positive, meaning that the more competitive the market for corporate control, the greater the odds that a firm will have an ATP. ATPs are thus most likely to be used where the Bargaining Power Hypothesis predicts they are least valuable. We therefore reject the Bargaining Power Hypothesis. The positive relationship between takeover activity and ATP use suggests instead that antitakeover protection adopted at the IPO stage is used to protect management from the threat of takeovers, just as it is when publicly held firms adopt such protection through charter amendments.¹⁰

¹⁰ As explained above, the fact that targets on average get nearly 100% of the surplus generated by takeovers negates the possibility that the positive coefficient might reflect an increasing value of bargaining power as the likelihood of a single bid increases.

Table 3
Influence of bidder competition on presence of antitakeover provisions

Estimated coefficients for cumulative logit models with a four-level dependent variable defined as follows: (a) the highest level includes either (i) dual class stock with voting control held by management or (ii) a classified board coupled with prohibitions on shareholder voting by written consent or at special meetings; (b) below that is classified board without such prohibitions on shareholder voting, (c) next is annually elected (nonclassified) board with prohibitions of shareholder voting by written consent or as special meetings; and (d) the lowest level of protection includes all others. Independent variables of interest are (i) mean annual takeover bids and (ii) mean number of parties making bids annually in a firm's 3-digit SIC industry over a 5-year period surrounding its IPO, each standardized by the number of firms in an industry. Each regression also contains the following control variables: a dummy variable for firms in an industry with the number of bids/bidders in the bottom 10%; dummy variables for firms with VC investment, LBO fund investment, and the presence of a management control block of 40% or more. Data for takeover activity is from SDC. A cumulative logit model produces a separate intercept for each variable. We have not included these intercepts in the table. Data for the dummies and ATPs are taken from prospectuses of 310 firms that went public between 1994-1997.

	(1)	(2)
Number of bidders		5.87*** (1.89)
Number of bids	4.34*** (1.50)	
Bottom decile	-0.94 (0.35)	1.00** (0.36)
VC-backed	0.04 (0.27)	0.06 (0.27)
LBO Fund-backed	0.38 (0.29)	0.39 (0.29)
Management control block	0.12 (0.29)	0.12 (0.28)
-2 log likelihood	13.47 / 5 df*	13.77 / 5 df*

*** Significant at .005 level

** Significant at .01 level

* Significant at .05

level

The dummy for very low takeover activity is significant as well. That coefficient is negative, meaning that a firm in an industry with bottom-decile takeover activity is more likely, on average, to have stronger ATPs than is a firm in an industry with more takeover activity. The interpretation of this result is unclear. As stated above, there is reason to expect a degree of arbitrariness in the use of takeover protection by companies in industries with very low takeover activity. To test the importance of ATP use by firms in very low-takeover industries, we ran the same regressions reported above without the bottom-decile dummy. The result was that the coefficients on the number-of-bidders and number-of-bids variables were significant at the .05 level and .1 level, respectively, which is lower than in the reported regressions, and had the same sign and as in the reported regressions. Thus, the relatively high degree of takeover protection in these firms does not affect the primary finding that ATP use is positively related to bidder competition.

In each of these regressions, the coefficients on the dummy variables for VC-backed, LBO fund-backed firms as well as those for management control block are insignificant. This is notable because the decisions of these firms regarding antitakeover protection is presumably well informed and less complicated than others by private benefits of control.

4.2.2. The Rational Myopia Hypothesis

The Rational Myopia Hypothesis posits that ATPs allow a firm to make long-term investments the value of which might be imperfectly signaled to the market. Several models support this hypothesis. Stein (1988, 1989) models a firm in which managers and shareholders have asymmetric information regarding value, where current earnings are a signal of value. He shows that managers, acting in the interests of shareholders, may sacrifice long-term value by boosting current earnings in order to increase current share values and thereby prevent shareholders from being “ripped off” by a raider. To the extent that an ATP can protect a firm against hostile acquisition at a low price, it eliminates this rational myopia and enhances the value of the firm’s shares. Shleifer and Vishny (1990) reach a similar conclusion modeling the arbitrage process. They show that shares of firms that invest in long-term hard-to-value projects are subject to a greater chance undervaluation than are firms that engage short-term projects. Consequently, these firms are at risk of being acquired at prices below

their true value. Here too, an ATP can protect shareholders. DeAngelo and Rice (1983), Knoeber (1986) and Borkhovich, Brunarski, and Parrino (1997) make a similar point based on incentives created by alternative executive compensation devices.

We next investigate whether the Rational Myopia Hypothesis explains the presence of strong antitakeover protection at the IPO stage. A necessary condition for rational myopia is asymmetric information between shareholders and managers regarding long-term investment decisions. Johnson and Rao (1997) and Pugh, Page and Jahera (1992) use firms' research and development intensity as a proxy for the degree of such asymmetric information. This is supported by Aboody and Lev (1999), who find that information asymmetry increases with R&D intensity. In our study, individual firms' R&D intensity is not informative because our sample firms are young, and their current R&D intensity may not reflect their R&D intensity in the future, when their shares are dispersed and takeover protection becomes relevant. Therefore, rather than looking at sample firms' R&D intensity, we look at industry-average R&D intensity for each sample firm's industry. Our premise is that asymmetric information and the problem of myopia, is greater in industries with high R&D than in those with low R&D, and that a firm at the IPO stage will adopt an ATP or decline to do so based on whether it foresees a myopia problem.

Our measure of industry-average R&D for each sample firm is the average R&D/Assets for the firm's 3-digit SIC code industry group over a three-year period immediately preceding the firm's IPO.¹¹ The range of this variable is 0 to .46, and the mean and median are .12 and .7 respectively. As in the regression above, we tested for clustering by 2- and 3-digit SIC industries and found that the dispersion parameters are slightly less than one, indicating that there is no need to adjust the standard errors in the regressions below.

Our dependent variable is the same four-level measure of ATP strength that we use above. We use the same control variables that we used in the prior regressions—the existence of a 40% management control block, and whether a firm is VC-backed, LBO fund-backed. In addition, in

¹¹ The regressions we report use equal-weighted industry average, and in calculating industry average R&D/Assets, we exclude firms for which Compustat show missing values for R&D. In unreported regressions, however, we calculated industry average R&D/Assets by counting such missing data as zero. The results of the regressions were not appreciably changed. In addition, we used median R&D/Assets and value-weighted R&D/Assets with no appreciable change in results.

separate regressions we control for the two takeover activity variables from the regressions presented above--number of bidders and number of bids--and in another regression we control for only hostile takeover attempts in a firm's industry. Like the other two takeover activity variables, this variable is measured as an annual mean over a five-year window beginning two years prior to the year of a firm's IPO and ending 2 years following the year of the IPO. We include this regression because it is commonly believed that hostile takeovers do not occur in high technology industries where the existing employees' skills are essential to the firm's success. By controlling for the actual occurrence of hostile bids, we account for the possibility that firms in some high R&D industries enjoy such natural protection. As an additional check we ran these regressions using dummy variables representing the top 5 percent and top 10 percent of firms in terms of R&D. In these regressions, the coefficients on R&D remained negative and significant at the .05 and .1 levels respectively.

The results of these regressions are presented in Table 4. In Column 1, where we control only for the presence of a management control block and for venture capital or LBO fund investment, the R&D variable is highly significant but it is negative--the opposite of what the Rational Myopia Hypothesis would predict. In Column 2, where we control for the hostile bids and thereby account for the possibility that high-R&D companies lack takeover protection because they are not vulnerable to hostile bids, the coefficient on the R&D variable is essentially the same and equally significant. In Column 3, we include the number-of-bids variable from the regressions presented in Table 3. Here, R&D is significant at the .05 level.¹² In all these regressions, the management control block, venture capital, and LBO fund variables are insignificant.

¹² We also estimated a regression using the number-of-bidders variable and get essentially the same results with a standard error slightly higher than that of the regression reported here. As seen in Panels 3, when R&D is combined with takeover activity variables, all variables decline in significance when compared to the regressions in which they are treated separately. This is due to a negative correlation between industry-average R&D and takeover activity in an industry.

Table 4
Influence of R&D on presence of antitakeover protection

Estimated coefficients for cumulative logit models with a four-level dependent variable defined as follows: (a) the highest level includes either (i) dual class stock with voting control held by management or (ii) a classified board coupled with prohibitions on shareholder voting by written consent or at special meetings; (b) below that is classified board without such prohibitions on shareholder voting, (c) next is annually elected (nonclassified) board with prohibitions of shareholder voting by written consent or as special meetings; and (d) the lowest level of protection includes all others. The independent variables of interest is industry-average R&D/assets. Industries are defined by 3-digit SIC code and average R&D/assets is the mean over the 3-year period prior to a firm's IPO. All regressions include the following control variables: dummy variables for firms with VC investment, LBO fund investment, and the presence of a management control block of 40% or more. The regression in Columns 2 and 3 also include variables measuring the number of hostile takeover bids and total takeover bid, respectively, in a sample firm's industry. The takeover variables are measured annual averages over a five-year periods beginning 2 years prior to the year of the firm's IPO and ending 2 years following the year of the firm's IPO. Data for industry-average R&D/Assets is from Compustat and includes all firms in the Compustat universe. A cumulative logit model produces a separate intercept for each variable. We have not included these intercepts in the table. Data for takeovers is from SDC. Data for antitakeover provisions taken from prospectuses of 310 firms that went public between 1994-1997.

	(1)	(2)	(3)
Industry mean R&D/assets	-2.78*** (1.06)	-2.80*** (1.06)	-2.11* (1.10)
Hostile takeover attempts In industry		16.89 (12.05)	
Number of bids			3.44** (1.55)
Bottom decile			-0.73* (0.38)
Management control block	0.05 (0.29)	0.09 (0.29)	0.06 (0.29)
VC-backed	0.2 (0.29)	0.21 (0.29)	0.16 (0.29)
LBO Fund-backed	0.35 (0.29)	0.40 (0.29)	0.34 (0.29)
-2 log likelihood	9.544 / 4 df*	11.259 / 5 df*	15.241 / 6 df*

*** Significant at .01 level.

** Significant at .05 level.

* Significant at .1 level.

On the basis of these results, we can reject the Rational Myopia Hypothesis. Takeover protection is instead more common when information asymmetry and the resulting risk of myopia are low. This suggests that ATPs are instead used to protect management when management performance is most transparent to shareholders and potential bidders.

In sum, neither the Bargaining Power Hypothesis nor the Rational Myopia Hypothesis explains the use of strong antitakeover protection at the IPO stage. In contrast to what these hypotheses would predict, strong protection tends to be adopted by firms in industries with active takeover markets, including those that have relatively low asymmetry of information between managers and shareholders. These findings imply that antitakeover protection is used to protect management when management performance is most transparent and takeovers most likely. This is consistent with prior studies of ATPs adopted by public firms with dispersed shareholders, but surprising at the IPO stage, where charter terms are expected to minimize agency costs and maximize firm value. In the next subsection we analyze whether ATPs are used where management's private benefits are high.

4.2.3. *Private benefits and management entrenchment*

Grossman and Hart (1988) and Harris and Raviv (1989) model the role of private benefits in the design of security structure at the time a firm goes public. They find that, in general, when private benefits are present, firm value is maximized by adopting structures that make it costly for management to prevent a takeover.¹³ Specifically, management power should be structured in such a manner that management can defeat a takeover attempt only if the takeover would be value-reducing. This is done by tying control rights to cash flow rights and forcing management to respond to a hostile bid by making its own competing bid. If private benefits are present, management in effect is forced to pay shareholders for them if it chooses to defeat a rival bid. In these models, managers bond themselves to such a regime by issuing a single class of shares, and in doing so they maximize firm value at the time of the IPO. Thus, Grossman and Hart and Harris and Raviv specifically find that dual

¹³ Grossman and Hart find that if both the incumbent and a rival have high private benefits, it is possible that the optimal security structure entails the issuance of high-vote shares to the public. They argue, however, that the scenario that leads to such a structure is rare. Moreover, because that result does not explain the issuance of high-vote shares *to the incumbent* at the time of the IPO or the use of ATPs generally, it has no applicability here.

class stock is generally inefficient. Their models, however, apply to ATPs broadly.

Grossman and Hart assume that when a rival makes a bid to acquire a target firm, the management of the target firm will be able to attract a white knight or otherwise obtain financing needed to make a competing offer. In some cases, this may be an unrealistic assumption, especially if private benefits are nonpecuniary—for example, psychic benefits of maintaining family control over a company. Bebchuk (1999) models the case in which management is liquidity constrained. It is possible, therefore, that managers of a firm going public adopt ATPs to protect their private benefits from the start. If ATPs are priced, their inclusion would reduce share prices by an amount equal to the expected cost of management defeating a value-increasing bid plus whatever value is created in having management exposed to the threat of a takeover. To the degree managers own pre-IPO shares, they would bear this cost directly in the value of their shares. Where the preservation of private benefits is worth more than the reduction in share prices attributable to an ATP, the managers would adopt an ATP. For firms with venture capital or LBO fund investment, the funds would shift the cost of the ATP to managers in the form of lower pay in exchange for an ATP.¹⁴ We cannot show whether this is occurring or not. We can only say that it would be consistent with our finding that management interests seem to lie behind the adoption of ATPs.

If expected liquidity constraints lead a firm to adopt an ATP to protect the private benefits of management, the ATP would maximize firm value only in the narrow sense of maximizing the sum of share value and private benefits *of incumbents*. That is, the firm's total value is maximized only contingent on the incumbent managers remaining in their jobs. Firm value in a broader and more important sense, however, would not necessarily be maximized because an ATP could allow incumbent management to defeat a rival's bid where the sum of private benefits and share values under the rival's control would be higher than under the incumbent (i.e., one where share value might be greater under rival management, or rival management might reap greater private benefits). Put another

¹⁴ No firms in our sample contained charter provisions limiting executive compensation. Consequently, there is no reason to believe that after the VC or LBO fund exits, managers would keep their compensation low as a quid pro quo for an ATP. Recall the finding of Borokhovich, Brunarski and Parrino (1997) that management compensation tends to increase after a firm has adopted an antitakeover charter amendment. Therefore, if a deal has been made with the VC or LBO fund, management's compensation reduction would have to be concentrated in the first few years following the IPO, while the VC and LBO fund is still present.

way, maximization of firm value under the incumbents is not necessarily socially optimal. This situation can arise because there are legal constraints on the ability of management to extract side payments from a bidder to compensate for the loss of private benefits. This potential inefficiency of ATPs becomes less significant in firms where incumbents reap unusually high private benefits.

If the protection of private benefits explains the use of ATPs—and at the same time, if ATP use maximizes firm value in the broadest sense—we would expect a positive relationship between high private benefits and ATP use. We test this Private Benefit Hypothesis with respect to psychic benefits of control, which as stated above, may be both high and difficult to protect with a competing bid once a hostile bidder appears. We assume that a firm’s founders place a high psychic value on control, and that where a founder is the CEO at the time of the IPO, the private benefits to him tend to be relatively high. Firms that meet this criterion fall into one of two categories: firms with VC or LBO fund investment where a founding entrepreneur has remained CEO throughout the pre-IPO period; and family firms that have neither VC nor LBO financing.¹⁵

To test the Private Benefit Hypothesis, we estimate a series of cumulative logit model to determine whether ATP use is greater among firms in which a founder is CEO at the time of the IPO. Table 5 presents the results of 4 regressions. In each regression, the dependent variable is the same four-tier measure of takeover protection used in the prior regressions. The regression in Column 1 is a univariate regression of takeover protection on a dummy variable indicating whether the founder of a firm was its CEO at the time the firm went public. In Column 2, a dummy for a 40% management control block is added; in Column 3, we add the variables from the takeover activity regression of Table 3; and in Column 4, we include both the takeover activity variables and R&D/Assets from the regression in Table 4. In all regressions, the coefficient on founder-CEO is negative rather than positive as the Private Benefit Hypothesis would imply, but the relationship is statistically insignificant. In addition, coefficients on the VC and LBO fund variables are insignificant. In the third and fourth regressions, the results from the prior regressions hold in the presence of the founder-CEO variable. Thus, at least with respect to this source of private benefits, we cannot conclude that ATP use is

¹⁵ Among firms with LBO fund investment, 18% had a founder as CEO; among firms with VC financing, 55% had a founder as CEO; and among others 72% had a founder as CEO. For the last group, 80% had a founder as either CEO or Chairman. Including these firms as high private benefit firms does not alter our results.

associated with the presence of high private benefits.¹⁶

Combining this result with those of the prior section, ATPs are apparently used to protect management, but we cannot conclude that their use is associated with the presence of high private benefits. It is still possible that ATP use is related to the presence of private benefits but that widespread, unobservable idiosyncratic benefits obscure the impact of the benefits that a founder associates with control. This interpretation would be consistent with the widespread, but non-universal, use of ATPs. This implies that the cost of an ATP is low relative to average private benefits. If this is true, there would be little, if any, reason to expect that where a firm adopts an ATP that the private benefits enjoyed by its managers are any higher than those that potential rivals would reap if they were to take over the company. Consequently, the protection of incumbents' private benefits from the start is not value maximizing in the broad sense – even if maximizes firm value in the narrow sense that, contingent on incumbent management remaining in their jobs, an ATP may maximize pre-IPO management's private benefits plus the share price. Thus, an ATP is not socially optimal even if it is privately optimal for pre-IPO shareholders and managers. As a normative matter, therefore, it is not clear that the law should allow the use of ATPs at the IPO stage.

¹⁶ In a draft paper, Laura Fields and Jonathan Karpoff test the relationship between private benefits and the use of dual class stock and other antitakeover defenses. They find that while dual class stock (present in 5.3% of their sample and 6.4% of ours) is associated with higher management compensation, longer CEO tenure, a family ownership, other ATPs are associated only with longer CEO tenure (Fields and Karpoff, 1999).

Table 5
Relationship between founder-CEOs and the presence of antitakeover provisions

Estimated coefficients for cumulative logit models with a four-level dependent variable defined as follows: (a) the highest level includes either (i) dual class stock with voting control held by management or (ii) a classified board coupled with prohibitions on shareholder voting by written consent or at special meetings; (b) below that is classified board without such prohibitions on shareholder voting, (c) next is annually elected (nonclassified) board with prohibitions of shareholder voting by written consent or as special meetings; and (d) the lowest level of protection includes all others. The independent variable of interest is Founder-CEO, a dummy variable indicating whether a firm's CEO at the time of the IPO was a founder. The regressions reported in Columns 3 and 4 are the takeover activity regression from Table III and the full R&D regression from Table IV. Each regression also contains the following control variables: dummy variables for firms with VC investment, LBO fund investment, and the presence of a management control block of 40% or more. A cumulative logit model produces a separate intercept for each variable. We have not included these intercepts in the table. Data for takeover activity is from SDC. Data for the Founder-CEO variable and the control variables are taken from prospectuses of 310 firms that went public between 1994-1997.

	(1)	(2)	(3)	(4)
Founder CEO	-0.06 (0.23)	-0.09 (0.24)	-0.06 (0.24)	-0.07 (0.25)
Management control block		0.13 (0.29)	0.14 (0.29)	0.09 (0.30)
Number of bidders			6.07**** (1.9)	5.09*** (1.96)
Bottom decile			1.04**** (.36)	.85** (.39)
R&D/Assets				1.84* (1.10)
VC-backed	-0.03 (.25)	0.002 (0.27)	0.06 (0.27)	0.16 (2.9)
LBO Fund-backed	0.33 (0.29)	0.37 (0.30)	0.33 (0.31)	0.27 (0.31)
-2 log likelihood	2.69 / 3 df	2.88 / 4df	15.36 / 6df**	16.8 / 7df**

**** Significant at .005 level

*** Significant at .01 level

** Significant at .05 level

* Significant at .1 level

5. Conclusion

Charters adopted at the IPO stage are widely assumed to maximize firm value, while ATPs are generally considered suboptimal. We find, however, that nearly fifty percent of firms going public adopt strong antitakeover protection—either dual class stock or staggered boards—and that all remaining firms have other ATPs. These ATPs would be expected to increase the firm’s agency costs when shareholders become dispersed, thereby reducing the firm’s value at the time of the IPO.

These results pose a puzzle: why do apparently inefficient terms appear in IPO stage charters? Theorists have suggested two situations in which such provisions can be efficient: (a) where a firm lacks bargaining power when faced with a hostile bid; and (b) where the nature of a firm’s potential investments could give rise to asymmetric information between shareholders and managers, which in turn leads to rational myopia on the part of its management. We test these theories, however, and find that neither explains the use of ATPs in IPO charters. To the contrary, ATPs are most commonly used where these theories suggest they are least efficient: ATPs are more likely when takeover activity is higher and rational myopia least likely to occur. ATPs are thus used to shield management from the market for corporate control where firm performance is relatively transparent (because information asymmetries are relatively low) and takeover most likely. In short, ATPs thus seem to be used to entrench management, just as they are used when firms amend their charters in mid-stream.

We then examine whether ATPs might be used to protect high private benefits. Grossman and Hart and Harris and Raviv find that private benefits will generally not lead to the use of ATPs at the IPO stage. Nonetheless, the use of an ATP could be rational if private benefits are large and incumbent management expects to be unable to finance its own bid in response to a hostile bid. This situation is most likely to arise if private benefits are nonpecuniary. We test this hypothesis, using the presence of a founder-CEO as a proxy for high psychic benefits of control, but we find no support. Founder-run firms are not more likely to use ATPs than are other firms. Our results actually point in the opposite direction, but they are not statistically significant.

Finding no support for the Bargaining Power, Rational Myopia, or Private Benefits Hypotheses, the question now becomes: What explains the pattern of their adoption? There are a few

possibilities, none of them entirely satisfactory.

ATPs might be innocuous and thus randomly distributed - the kind of “neutral mutations” in security design described by Merton Miller (1977). If harmless, they might arise due to carelessness or random disagreement in charter design among managers, investors, lawyers or underwriters. This is unlikely. Prior empirical work on ATPs adopted by charter amendment and legislation indicates that ATPs can significantly reduce firm value and deter bids. Moreover, our finding that ATPs increase with takeover activity suggests that managers or pre-IPO shareholders consider them effectual. Additionally, in unreported tests, we find that ATPs are no less common when high quality underwriters and law firms advise a firm. One would therefore expect a rational explanation for their use.

A second possible explanation is that the cost of an ATP might be so low relative to average private benefits that ATPs are adopted to protect unobservable, idiosyncratic private benefits that are not unusually high and that this overwhelms the impact of the psychic benefits a founder-CEO may derive from control. This interpretation is consistent with our finding of widespread ATP use and the fact that firms run by non-founders are no less likely to adopt ATPs. This would imply that while an ATP may maximize the firm’s value while in the control of incumbents, it does not maximize the potential value of the firm because there may well be a rival management under which the sum of share value and private benefits would be higher. A difficulty with this interpretation, however, is that if the cost of ATPs is low relative to average private benefits, one might still expect founder-run firms to adopt ATPs in significantly greater number than do nonfounder-run firms.

Finally, our results provide qualified support for the proposition that initial charters fail to maximize long-term share value—that is, that they fail to maximize the market value of the firm over time, leaving aside private benefits. Not only do we find ATPs to be common, we find that they are used where theory tells us they are least efficient. If initial charters fail to maximize firm value, the most likely source of inefficiency would be the market’s failure to fully price agency cost increasing ATPs. Perhaps governance terms are expensive for investors to price at the time of the IPO. This would allow management to get protection at low (or no) cost. The fact that ATPs are common and do not vary with the strength of private benefits is consistent with this interpretation. If ATPs are not

fully priced at the IPO, ATPs may not maximize firm value in that over time, the presence of an ATP may be detrimental to share value—perhaps as a result of deterring or defeating a bid, or as a result of weakening management discipline – even though they do not reduce the offering price of the firm’s securities.

While this may indeed be the correct interpretation of the data, there are nonetheless problems with this interpretation. It is inconsistent with evidence of price reactions when ATPs are introduced in public firm charters by charter amendment or legislation (though perhaps ATPs added in mid-stream receive more attention and are therefore more accurately priced). Furthermore, if ATPs are not fully priced, why don’t more firms adopt strong ATPs? Assuming that management would generally favor ATPs, all things equal, the fact that strong ATPs are not universally adopted implies that there is some constraint on their adoption, presumably a price constraint. Moreover, if ATPs are not priced in IPO markets, but are priced later, shareholders would ultimately still bear their cost. This should give them the incentive to adopt ATPs only when they maximize value.

Appendix

Antitakeover Charter and Bylaw Provisions

Because takeover laws have changed in recent years, the significance of many ATPs have changed. There is some confusion in the literature about how particular ATPs work and which should deter bidders, we therefore append a list of the ATPs in our sample and a description of their effect.

Dual class stock

Dual class stock gives control to the holders of shares with disproportionate votes. In this study, we coded shares as being dual class only if the shares were held by a firm's management (usually the CEO himself) in sufficient numbers to give management voting control of the firm. This was typically the case where dual class shares were outstanding. Such concentration ensures that a firm's board cannot be replaced involuntarily and that no unfriendly acquisition can occur. It is the most effective antitakeover provision available to a public corporation.

Classified (staggered) board

When used in combination with a poison pill (which management can adopt unilaterally without shareholder approval), a charter provision calling for a classified, or staggered, board poses a substantial barrier to hostile acquisition. Standing alone, a pill constitutes a complete barrier to a takeover as long as it remains in place. A common way for an acquiror to defeat a pill is to mount a proxy contest to replace the target's board, and if the proxy fight is successful, to have the new board to redeem the pill. If a target has an annually elected board, the acquiror can do this, at the latest, at the firm's next annual meeting (earlier if shareholders may call special meetings or vote by written consent). If a target has a classified board, however, this tactic requires proxy contests at two annual meetings. With a classified board, the directors are typically divided into three equal classes, the terms of each to expire in consecutive years. One class of directors is elected each year. Between shareholder meetings directors may be removed only for cause. Thus, to gain control of a classified board without the board's cooperation, an acquirer must mount successful proxy contests at two annual meetings, replacing one-third of the directors at each meeting.

Restrictions of shareholders' ability to call a special meeting or to act by written consent

Restrictions on shareholder voting at special meetings or by written consent can also be used in combination with a poison pill to create a barrier to hostile acquisition. Firms can include in their charters or bylaws provisions either allowing or disallowing shareholders to call a special meeting or to vote without a meeting by "written consent." (The default rule varies across states.) If special meetings and votes by written consent are disallowed, shareholder votes can be taken only at an annual meeting (which is mandatory). As described in the context of a classified board, once a target has adopted a poison pill, an acquiror will frequently attempt to eliminate the pill by replacing the target's board and having the new board redeem the pill. If shareholders may call a special meeting or vote by written consent, an acquirer can use these mechanisms to replace a target board quickly. If a firm's charter or bylaws disallow these avenues by which to call a shareholder vote, the acquiror must wait until the target's next annual meeting to seek a vote.

Blank check preferred stock (poison pills)

A charter provision authorizing “blank check” preferred stock permits a corporation’s board to issue preferred shares at its discretion. By the terms of a typical blank check provision, voting, conversion and other rights appurtenant to the shares are determined at the time of issuance. Blank check preferred stock is the most common source of the securities used to create a poison pill. Almost all firms have blank check preferred stock authorized to quickly adopt a poison pill. As a pill can be issued without shareholders’ consent, it can be assumed that management will adopt a pill whenever it is its interest. Thus, effectively all firms should be seen as having a poison pill. The presence or absence of a poison pill at any particular point in time does not affect the firm’s vulnerability to a takeover. In addition, a blank check provision can be used to issue stock with special voting features to shareholders friendly toward management.

Control share acquisition

A control share acquisition provision suspends the voting rights of a shareholder whose portion of a corporation’s outstanding equity surpasses predetermined thresholds, such as 20%, 33% or 50%. The affected shareholder’s voting rights may be reinstated only by the vote of a majority or in some instances a supermajority of the firm’s disinterested shareholders, including management. Thus, a control share acquisition provision is most effective when management holds a large block of stock. At the very least, however, the fact that a potential acquirer must receive shareholder approval each time an ownership threshold is crossed slows down the acquisition process and adds to the expenses of the acquirer, who must solicit shareholders’ votes to have its votes reinstated. The corporation laws of many states contain generic, or “off the rack” control share provisions. Firms incorporated in those states and not opting out of the generic provision are governed by control share provisions by operation of law. Others adopt equivalent charter provisions.

Nonshareholder constituency

A nonshareholder constituency provision gives a corporation’s board wider authority than it otherwise would have to oppose a hostile bid. It authorizes management to evaluate a takeover bid by considering factors other than the economic interests of shareholders, including the likely effects of the proposed combination on employees, bondholders, suppliers, customers, and other stakeholders. “Other stakeholders” can be defined broadly. It is easy for management to promote its own interest by invoking that of some other constituency. For example, it may include the citizens of states or municipalities in which the firm has operations. The corporation laws of some states contain these provisions. Firms incorporated in those states and not opting out are governed by nonshareholder constituency provisions by operation of law. Others adopt equivalent provisions in their charters.

Business combination (including D.G.C.L. § 203)

A business combination provision prohibits “business combinations” (defined to include mergers, assets sales and certain other transactions) between a corporation and a corporate shareholder who, without the prior consent of management, comes to own a specified percentage (usually 10%) of the firm’s outstanding equity. The prohibition, or “freeze” extends for a specified period of time (often 3 years, although 5 years is also common). The corporation laws of many states contain business combination provisions. Delaware law, for example, mandates a 3 year freeze. Firms incorporated in those states and not opting out are governed by business combination provisions by

operation of law. Others include these provisions in their charters. With the advent of the poison pill, business combination provisions now provide minimal if any deterrence to a would-be acquiror.

Fair price

A fair price provision requires a hostile bidder to pay each of the target's shareholders a similar price for their shares, regardless of whether a shareholder tenders into the acquiror's tender offer or is "frozen out" in a subsequent merger of the acquiror and the partially owned target. Most fair price provisions are accompanied by a backstop provision requiring a supermajority vote to circumvent the pricing guidelines. Some state laws include fair price provisions. Firms incorporated in those states and not opting out are governed by these provisions by operation of law. Others include these provisions in their charters.

Restrictions of shareholders' ability to nominate directors or otherwise affect the agenda of a shareholders' meeting

These restrictions take the form of bylaw provisions requiring a shareholder to provide the corporation with advance notice (often 60 days and sometimes as many as 180 days) of any nominations of directors or other business proposed to be placed on the agenda of a shareholders' meeting. These provisions serve to delay an acquiror seeking to nominate a slate of directors, at either a special or annual meeting.

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