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Hannes, Sharon

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A DEMAND-SIDE THEORY OF ANTITAKEOVER DEFENSES

Sharon Hannes^{*}

Abstract

This article develops a demand-and-supply framework to analyze the adoption of antitakeover defenses and constructs a demand-side theory of antitakeover provisions (“ATPs”). The article views the decision to go public without ATPs as a decision to produce an unshielded target and shows that the classic literature focused on the costs of producing such a target but barely accounted for demand-side considerations. The article argues that the more firms there are producing unshielded targets (and, therefore, the fewer the firms adopting ATPs), the lower the price the market is willing to pay for the unshielded product. The reason for this is that not only do ATPs prevent takeovers, they also divert takeover activity to unshielded targets. The combination of existing supply-side explanations with the novel demand-side theory works to explain the findings of recent empirical studies of ATPs at IPO stage firms that have puzzled the corporate finance and corporate law literature.

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I. Introduction

The results of recent empirical studies regarding antitakeover charter provisions (“ATPs”) in IPO-stage firms have long puzzled corporate law scholars.¹ While some companies adopt harsh and effective ATPs, others have no such provisions whatsoever.² To understand the reason for this divergence in firm behavior, researchers investigated relevant dissimilarities between adopting and non-adopting firms. Surprisingly, the firms that had opted for ATPs did not possess the special features identified by the classic literature as making ATPs of particular value to a firm.

Consequently, researchers proposed a number of theories of market failure that provide alternative explanations to the classic literature for the adoption of ATPs. The feature common to all these theories is that they all reject the classic notion that the corporate governance structure of IPO firms maximizes the benefit of the entire shareholder body.³ One study suggests that the market does not price the costs of an antitakeover provision and, therefore, IPO-stage firms can often get away with adopting detrimental ATPs that protect managers from takeovers, at the expense of the public shareholders. A second study suggests that lawyers do not always give good advice to their clients with regard to ATPs and therefore firms fail to select the optimal tactic. Finally, a third study suggests that some pre-IPO firms have dominant managers who select ATPs at the expense of the non-managerial pre-IPO shareholders.⁴

The essence of this paper is the claim that all these explanations are excessive and that the seminal notion that IPO-stage firms select optimal governance terms may still stand. The reason that the classic literature failed to provide a full rationale for firm

¹ See John C. Coates, *Explaining Variation in Takeover Defenses: Blame the Lawyers*, 89 CAL. L. REV. 1301 (2001); Robert Daines & Michael Klausner, *Do IPO Charters Maximize Firm Value?*, 17 J.L. ECON. & ORG. 83-120 (2001); Laura C. Field & Jonathan M. Karpoff, *Takeover Defenses at IPO Firms*, J. FIN. (forthcoming 2002), earlier draft available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=236043.

² One commentator recently presented the challenge to traditional corporate law as follows: “Standing alone, Lipton’s position would suggest all companies should adopt defenses prior to an IPO, and Easterbrook & Fischel’s position would suggest that no firm should adopt a defense; yet, in reality, about half do and half do not.” Coates, *supra* note 1, at 1307.

³ This classic notion is attributed to the seminal work of Jensen and Meckling. Michael C. Jensen & William H. Meckling, *The Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structures*, 4 J. FIN. ECON. 305-60 (1976).

⁴ The difference between this theory and the first one presented here is that the former posits that the public markets price ATPs well and know that they are harmful for shareholders. Therefore, the public shareholders presumably pay less for firms with ATPs, making the pre-IPO shareholders bear all the costs of adopting the ATPs.

behavior is that it concentrated on what we call supply-side explanations. We view the decision to go public without ATPs as a decision to produce an unshielded target and show that the classic literature focused on the costs of producing such a target. The literature explained that some firms have features that make ATPs particularly valuable to them, and therefore their costs of producing an unshielded target are high. Those firms, the argument goes, are the ones most likely to adopt ATPs. However, we argue that the empirical studies failed to uncover such behavior because the classic literature never considered demand-side considerations.

The implied assumption of the classic literature is that the benefits of rejecting ATPs do not fluctuate with the number of firms on the market that adopt ATPs. We argue that the greater the number of firms that adopt ATPs, the higher the benefits that accrue to the firms that reject them. The reason is that not only do ATPs prevent takeovers, they also divert takeover activity to unshielded targets. This argument may be formulated as a demand-side explanation. The more firms there are producing unshielded (and therefore the fewer the firms adopting ATPs), the lower the price that the market is willing to pay for the unshielded product. Conversely, the fewer the number of firms producing unshielded targets, the higher the price the market will place on each unshielded target.

The reason that the adoption of ATPs by a firm benefits its unshielded peers is that purchasers make comparative analyses in their decision-making processes.⁵ In addition to looking at the functional characteristics of the different potential targets, bidders compare the degree of ease with which each target may be acquired. Therefore, in order to get a complete picture of a company's takeover prospects, one must consider not only the company's defenses, but also those of its peers.⁶

Put differently, the takeover risk to an individual firm is not endogenous to its antitakeover decisions. Each prospective bidder naturally confronts a limited pool of suitable targets from which to choose. Thus, every potential target must consider the defenses

⁵ This fact was readily shown by an empirical study that found that termination of a planned merger creates vast stock gains for industry rivals, suggesting that industry rivals are takeover alternatives and may be purchased once the merger fails. See Aigbe Akhigbe et al., *The Source of Gains to Targets and Their Industry Rivals: Evidence Based on Terminated Merger Proposals*, 29 FIN. MGMT. 101 (2000).

⁶ In a sense, this externality argument is close to Shavell's diversion-of-crime argument. Steven Shavell, *Individual Precautions to Prevent Theft: Private Versus Socially Optimal Behavior*, 11 INT'L J.L. & ECON. 123, 126 (1991). For example, placing bars on one's windows would result in a higher risk of burglary to one's neighbors. However, the externality resulting from adoption of takeover defenses may, in fact, constitute a positive externality to "neighboring" firms, since shareholders have adequate reasons to promote takeovers.

available to other prospective targets. The defensive decisions of one firm may divert takeover activity to another firm, which may, in turn, affect the average takeover premium that the latter may reasonably expect in a takeover event.⁷

Taken together, the demand-side explanation that this paper presents and the supply-side explanations previously raised in the literature may help to solve the conundrum of the diversity of firm-behavior at the IPO stage. Some firms may have features that cause them to derive greater benefit from adopting ATPs than do other firms. However, the greater the number of firms that adopt ATPs, the higher the expected premia their unshielded peers can hope for. The market stabilizes at the point where the marginal firm is indifferent to the adoption of ATPs, since both tactics provide similar benefits.

The fact that the empirical studies could not find evidence that the adopting firms are those possessing the special features that make ATPs especially of value should not be taken as a discouraging sign. The supply effects may be mild or theoretically non-existent, but nevertheless, only part of the firms would elect to remain unshielded. Put differently, even if all firms are similar in all relevant features, they may diverge in their ATP decisions. The reason for this is that even if ATPs were to provide similar benefits to all firms, an adoption trend would raise the benefits accruing to unshielded firms. Eventually, at some ratio of ATP-adoption, the benefits of the two strategies would become equal for all firms and the market would maintain this ratio. To sum up, the divergent behavior of IPO-stage firms regarding takeover shields does not necessarily point to any market failure.

Section II below seeks to rephrase the classic literature as three alternative supply-side explanations. Section III presents a simple model that emphasizes the consequences of diversion in takeover activity. Section IV discusses previous empirical findings and suggests verifiable outcomes predicted by the model in Section III. Finally, Section V discusses and elaborates on the conclusions of the demand-side theory.

II. ATPs and the Supply-Side Theories in the Classic Literature

⁷ The discussion in this paper relies on the existence of a *corporate stagnation* effect regarding ATPs, a phenomenon that I have analyzed elsewhere. As the empirical evidence clearly indicates, seasoned firms that entered the 1990s with ATPs do not tend to repeal them, but the rest of the mature firm population seldom adopts new ATPs. This means that managers are potent enough to maintain ATPs in the former type of firm, and stockholders are potent enough to resist adoption of ATPs in the latter. See Coates, *supra* note 1, at __; Sharon Hannes, *The Determinants and Consequences of Corporate Stagnation: Discussion and Reform Proposal 20* (2001) (unpublished manuscript, on file with author).

A. The Development of ATPs

In a hostile takeover, the board of directors of the target firm opposes the proposed transaction. Thus, the bidder must directly convince the target's shareholders to tender their shares and approve the transfer of control. Following the 1980s takeover boom,⁸ innovative legal devices (which were upheld by judicial precedents) enabled a target's board of directors to block bids by means of a variety of legal shields.⁹ Shrewd attorneys advised corporate boards to adopt shareholder rights plans, notoriously known as "poison pills."¹⁰ Under the terms of such plans, the purchase of a significant portion of stock without the board of directors' approval triggers valuable rights for incumbent shareholders at the expense of the buyer.¹¹ Consequently, the board of directors in effect acquires the discretion to prevent transfer of control by purchase of stock.¹²

However, even with a poison pill in place, a bidder can solicit the votes of shareholders in order to replace an incumbent board.¹³ If the solicitation succeeds, the newly elected directors can remove the poison pill, since "poison pills can be removed by a board of directors

⁸ The merger wave of the 1980s was so fierce that an unbelievable 30% of the Fortune 500 companies were subject to takeover bids during this decade. Gerald Davis & Suzanne Stout, *Organization Theory and the Market for Corporate Control: A Dynamic Analysis of the Characteristics of Large Takeover Targets, 1980-90*, 37 ADMIN. SCI. Q. 605, 608 (1992).

⁹ See the seminal case of *Moran v. Household Int'l, Inc.*, 500 A.2d 1346 (Del. 1985).

¹⁰ These developments troubled even those scholars who maintain that state law competition generally leads to efficient results. See Daniel R. Fischel, *The "Race to the Bottom" Revisited: Reflections on Recent Developments in Delaware's Corporation Law*, 76 NW. U. L. REV. 913 (1982); Roberta Romano, *Competition for Corporate Charters and the Lesson of Takeover Statutes*, 61 FORDHAM L. REV. 843, 856-59 (1993).

¹¹ Poison pills typically allow the incumbent shareholders to buy the acquirer's stock (so-called "flip-over" poison pills) or the target's stock (so-called "flip-in" poison pills) at a substantially discounted price. A flip-over poison pill is generally a far less potent defense than a poison pill with a flip-in provision. See Ronald J. Gilson & Bernard S. Black, *THE LAW AND FINANCE OF CORPORATE ACQUISITIONS* 747 (2d ed. 1998).

¹² For the terms of a standard poison pill, see Wachtell Lipton Rosen & Katz, *The Share Purchase Rights Plan*, reprinted in Gilson & Black, *supra* note 11, at 4-12.

¹³ One exception is the so-called "dead-hand" poison pill, which managers try to use to undermine the effectiveness of a proxy contest. A dead-hand poison pill limits the ability to redeem the poison pill to those directors who were members of the board at the time of the pill's adoption. These were prohibited by the Delaware Chancery Court in *Carmody v. Toll Brothers*, 723 A.2d 1180 (Del. Ch. 1998), at least if the articles of incorporation do not include authorization for their adoption. *Id.* at 1191. The Delaware Supreme Court adopted a similar approach in *Quickturn Systems, Inc. v. Shapiro*, 721 A.2d 1281 (Del. 1998).

as easily as they can be installed.”¹⁴ Once the pill is removed, the bidder may proceed to purchase the target’s stock. In this manner, the voting process may overcome the harsh effects of the poison pill and allow the bidder to finalize the hostile takeover.¹⁵ There are, however, tactics that can interfere with and delay the replacement of the board of directors.

The potency of such antitakeover measures lies in the costly delay they create.¹⁶ Because market values change rapidly, deals that can be concluded without delay are of much greater value than those that cannot. Moreover, because takeover activity engages the bidder’s management, significant opportunity costs are created as the takeover

¹⁴ John C. Coates, *Measuring the Domain of Mediating Hierarchy: How Contestable Are U.S. Public Corporations?*, 24 J. CORP. L. 837, 852 (1999).

¹⁵ In reality, when the bidder solicits the shareholders’ votes to circumvent a poison pill, she must also create a credible commitment to purchase the stock after she has captured the board. This commitment is necessary to assure the shareholders that the bidder will not pursue her own agenda at the expense of the shareholders after she has prevailed in the vote. Moreover, the committed purchase price serves as a signal to the shareholders in evaluating the quality of the bid. The market mechanism to allow for such a commitment is a contingent tender offer that is held in conjunction with the proxy fight for the board. In short, this is a simultaneous offer to replace the management of the company and buy its shares. See Harold Mulherin & Annette Poulsen, *Proxy Contests and Corporate Change: Implications for Shareholders Wealth*, 47 J. FIN. ECON. 279, 286 (1998). First, the shareholders are presented with an offer and decide whether or not to tender their stock. However, the tender offer is not consummated at this stage, so as not to trigger the poison pill. Thereafter, and if enough shares are tendered, the shareholders vote for the board, and if the bidder prevails, the contingent tender offer is automatically triggered. The poison pill is immediately lifted, and the target’s stock changes hands for the previously specified price. A joint tender offer and proxy contest are thus structured to overcome the board’s disinclination to the transaction. This joint vote and tender offer also assist shareholders to overcome strategic tendering that could hurt the entire shareholder group. Thus, it prevents coercive bids that are designed to pressure and absorb shareholders value. See Lucian A. Bebchuk, *Toward Undistorted Choice and Equal Treatment in Corporate Takeovers*, 98 HARV. L. REV. 1695 (1985); Lucian A. Bebchuk, *The Pressure to Tender: An Analysis and a Proposed Remedy*, 12 DEL. J. CORP. L. 911 (1987). Finally, uninformed shareholders may find it hard to decide whether to vote for or against their own managerial team. The offered price compared to the pre-bid price of the firm’s stock may help the shareholders reach a decision. A more accurate explanation may be found in Lucian Bebchuk & Oliver Hart, TAKEOVER BIDS, PROXY FIGHTS AND CORPORATE VOTING (NBER Working Paper Series No. W8633, 2001), at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=293246.

¹⁶ Coates measures the potency of a takeover defense by the number of days by which the defense can delay the purchase of the company’s stock. This delay is computed for every firm and thus creates an innovative index, the “contestability index,” for every measured company. The contestability index allows for a fine-tuned and comparative analysis of different types of legal defenses, including combinations of defenses. John C. Coates, *An Index of the Contestability of Corporate Control: Studying Variation in Legal Takeover Vulnerability* (1999) (unpublished manuscript, on file with author).

battle is dragged on. Finally, the longer it takes to conclude a deal, the greater the risk of competition to the bidder emerging. As a result, if the process of replacing the board consumes too much time, the effect of the poison pill becomes far more salient.¹⁷

For instance, although Delaware law requires that every board member be elected annually, a charter provision may establish staggered elections such that only a third of the board is replaced or reelected each year.¹⁸ However, gaining control of a third of the board obviously does not give one a majority, and thus gaining control of a staggered board requires victory in at least two voting battles.¹⁹

Unlike poison pills that are implemented by the board, ATPs that delay the replacement of the board beyond a legal default, such as the staggered board charter provision, ordinarily require shareholder approval in order to be implemented. Alternatively, these ATPs may be installed in the firm's initial charter or during the period when ownership is concentrated, before the initial public offering.²⁰

Apparently, the possibility of delaying the redemption of a poison pill for up to two years was appealing to many firms.²¹ Since the 1980s, there has been a dramatic upsurge in the number of publicly held companies with staggered elections. Currently, approximately 60% of all public firms do not reelect their entire board every year.²²

¹⁷ Thus, it is not surprising that a poison pill does not, by itself, hinder much the likelihood of a takeover. See the empirical results in Robert Comment & William Schwert, *Poison or Placebo? Evidence on the Deterrence and Wealth Effects of Modern Antitakeover Measures*, 39 J. FIN. ECON. 3 (1995).

¹⁸ See DEL. CODE ANN., tit. 8, § 141(d) (1991). There is a possibility of forming a two-tiered staggered board instead of a three-tiered one. However, in practice, such a structure does not provide managers with the benefits of a three-tiered staggered board and therefore is rarely, if ever, witnessed.

¹⁹ For background, criticism, and statistics regarding staggered boards, see INVESTORS RESPONSIBILITY RESEARCH CENTER, BACKGROUND REPORT ON CLASSIFIED BOARDS (1994). Empirical research by Ambrose & Megginson found that classified boards are associated with a decrease in the likelihood of a firm's acquisition, but that other takeover defenses have no statistically significant effect on acquisition likelihood. Brent W. Ambrose & William L. Megginson, *The Role of Asset Structure, Ownership Structure, and Takeover Defenses in Determining Acquisition Likelihood*, 27 J. FIN. & QUANTITATIVE ANALYSIS 575-89 (1992).

²⁰ However, in the second half of the 1980s, as illustrated by the work of Karpoff & Danielson, managers easily obtained shareholder consent for various delaying mechanisms. Karpoff & Danielson's empirical work shows that the percentage of antitakeover shields in seasoned firms grew tenfold during this period. Jonathan M. Karpoff & Morris G. Danielson, *On the Uses of Corporate Governance Provisions*, 4 J. CORP. FIN. 347, 354 tbl. 2 (1998).

²¹ If the firm opts for cumulative voting and the managers have considerable influence on a small percentage of the firm's votes, staggered boards may delay takeover for up to three years.

²² This is, in fact, the most extreme measure among many other charter provisions that are widely used to foster delays. For a broad discussion of

By the 1990s, however, the ease with which ATPs were adopted in seasoned firms had disappeared. The increased power and activity of institutional shareholders practically precluded managers from implementing ATPs in such firms.²³ However, while institutional investors block management proposals to adopt ATPs, they do not force firms that already have them to repeal them, nor do they pressure IPO-stage firms to forego adopting them.²⁴ Consequently, ATPs are either adopted at the IPO state or else never adopted at all.²⁵ As noted by one commentator, “After an IPO is complete and ownership dispersed, the takeover defenses of a public company in the U.S. in the 1990s have generally been fixed.”²⁶

As noted before, recent empirical studies have revealed that firms differ vastly in the way in which they implement their freedom to adopt ATPs prior to the IPO stage. Many firms adopt different types of ATPs, but many others do not adopt ATPs at all (or adopt minor defenses). This finding has sparked the debate from the 1980s about the welfare implications of ATPs.²⁷

antitakeover charter provisions, see Hannes, *supra* note 7; Coates, *supra* note 16. The proliferation of ATPs in the population of seasoned firms in the second half of the 1980s is documented in Danielson & Karpoff, *supra* note 20, at 347-71. The widespread use of ATPs is also readily apparent from many other sources. For example, the use of staggered boards rose from about 20% in the early 1980s to beyond 60% today. For the up-to-date data, see Alessandra Monaco, CORPORATE GOVERNANCE SERVICE 1999 BACKGROUND REPORT C: CLASSIFIED BOARDS, 1999 INVESTOR RESPONSIBILITY RESEARCH CENTER; for the evidence regarding the 1980s, see Wayne Mikkelsen & M. Megan Partch, *Managers Voting Rights and Corporate Control*, 25 J. FIN. ECON. 263, 267 (1989).

²³ ATPs are ... opposed by institutional investors. Institutional investors have sponsored shareholders' proposals seeking the elimination of ATPs and adopted shareholder voting protocols under which they will automatically vote against the adoption of a charter amendment containing an ATP.

Daines & Klausner, *supra* note 1, at 84.

²⁴ As a result, corporations that go public tend to use more and more defenses. This paper suggests an explanation for this oddity. See *infra* note 78 and accompanying text.

²⁵ I have analyzed this status quo elsewhere. In a nutshell, concurrent legal structure together with other structural factors prevent shareholders from removing ATPs from corporate charters, while managers cannot persuade shareholders to add ATPs that are not already in place. See Hannes, *supra* note 7.

²⁶ Coates, *supra* note 1, at 1306.

²⁷ The debate is summarized at length by Romano, Roberta Romano, *A Guide to Takeovers: Theory, Evidence, and Regulation*, 9 YALE J. REG. 119 (1992). Much of the copious literature deals with the effects of takeovers and ATPs on a variety of corporate actors. Discussion focuses on the influence of new conditions on managers, shareholder wealth (from the perspective of both corporate targets and bidders), employees, hosting communities, consumers, suppliers, government, and society. See, e.g., Frank H. Easterbrook & Daniel R. Fischel, *The Proper Role of a Target's Management in Responding to a Tender Offer*, 94 HARV. L. REV. 1161 (1981); Frank H. Easterbrook & Daniel R. Fischel, *Takeover Bids, Defensive Tactics, and Shareholders Welfare*, 36 BUS. LAW. 1733

Researchers became increasingly interested in theories seeking to explain why shareholders' welfare considerations may lead one firm to adopt ATPs and another to reject adopting them.²⁸ In particular, scholars identified three theories that highlight specific firm characteristics that make ATPs especially valuable to those firms bearing them, characteristics that may induce firms to adopt ATPs at the IPO stage despite the particular disadvantages of ATPs.

B. Three Supply-Side Theories

Although the theory laid out in this paper may explain why firms differ in their ATP decisions even if they all share the same characteristics (and thus does not rely on existing theories), it is important to reformulate as supply-side theories the theories that were advanced in the classic literature. I term a theory a supply-side theory if it argues that firms diverge in their costs of going public without defenses (i.e., produce an unshielded target) because they have to forego different levels of benefits that ATPs produce. In contrast, the theory presented in this paper is termed a demand-side theory because it argues that bidders' *willingness to pay* for an unshielded target is linked to the proportion of the firms on the market that remain unshielded.

The first supply-side theory evolves from the notion that hostile takeovers are generally beneficial to shareholders since they discipline managers. This is an *ex ante* approach: managers are threatened by the possibility of a takeover and therefore do not shirk their duties.²⁹ Otherwise, the market value of their firm will decline, which will create an opportunity for a hostile bidder to buy the company cheaply and reap the benefits of investment in its improvement. From this perspective, any obstacle to a takeover, such

(1981); Lucian Bebchuk, *The Case for Facilitating Competing Tender Offers: A Reply and Extension*, 35 STAN. L. REV. 23 (1982); Ronald Gilson, *Seeking Competitive Bids Versus Pure Passivity in Tender Offer Defense*, 35 STAN. L. REV. 51 (1982); Andrei Shleifer & Lawrence H. Summers, *Breach of Trust in Hostile Takeovers*, in CORPORATE TAKEOVERS: CAUSES AND CONSEQUENCES 33 (Alan Auerbach ed., 1988) (concentrating on the effects of takeovers on employees under the assumption that the corporate raider is likely to breach implicit contracts between the corporate target and its employees); Margaret Blair & Lynn Stout, *A Team Production Theory of Corporate Law*, 85 VA. L. REV. 247 (1999).

²⁸ These theories differ from the classic points of view that viewed ATPs as either entirely harmful or entirely beneficial. For the classic approach of opponents of defenses, see Easterbrook & Fischel, *supra* note 27; Alan Schwartz, *Search Theory and the Tender Offer Auction*, 2 J.L. ECON. & ORG. 229-253 (1986). For the classic view of proponents of defenses, see Martin Lipton, *Takeovers Bids in the Target's Boardroom*, 35 BUS. LAW. 101 (1979).

²⁹ In their formative work, Jensen & Meckling define the three components of agency costs: monitoring (costs of principal scrutiny); bonding (costs of agent commitments); and residual loss (the remaining loss from agent misbehavior). Jensen & Meckling, *supra* note 3.

as an ATP, is generally harmful. The more defenses available to the firm's management, the greater the risk of misconduct on the part of that firm's officers.³⁰

However, the disciplinary argument collapses if the market or any sub-market suffers from myopia.³¹ Managers who have not committed any wrongdoing may be replaced in a takeover maneuver if the market does not recognize the wisdom of their actions.³² Thus, due to the threat of a takeover, managers may under-invest or over-invest to satisfy investors seeking short-term returns.³³ When this is the case, ATPs may cure the above managerial distorted incentives, rather than simply undermining the beneficial disciplinary power of the market for corporate control.³⁴ Once managers are relatively takeover-proof, goes the argument, they can freely pursue prudent business strategies without any fear of a market misunderstanding.

Researchers speculate that certain characteristics of a given firm may expose it to an increased threat of market myopia and, hence, deem ATPs especially valuable to firms with such characteristics. Specifically, they point to the firm's level of research and development expenditure. The hypothesis is that high R&D levels particularly exacerbate the problem of the myopic market, since it is hard to estimate the long-term value of such an expense. Consequently, firms with high R&D levels are more likely to adopt ATPs.³⁵

It is now easy to formulate this hypothesis as a supply-side

³⁰ Many more restraining market forces and internal mechanisms help reduce managerial agency costs. However, they leave the door wide open for a takeover threat. See, e.g., Michael C. Jensen, *The Modern Industrial Revolution, Exit, and the Failure of Internal Control Systems*, 48 J. FIN. 831, 847 (1993).

³¹ Stein was the first to link the takeover market behavior with the inefficient market hypotheses. See Jeremy Stein, *Takeover Threats and Managerial Myopia*, 96 J. POL. ECON. 61 (1988); Jeremy Stein, *Efficient Capital Markets, Inefficient Firms: A Model of Myopic Corporate Behavior*, 104 Q.J. ECON. 393 (1989).

³² Similar to Stein's principal point, Shleifer & Vishny argue that the value of firms that invest in long-term hard-to-evaluate projects is likely to be discounted relative to their peers that invest in short-term projects. Andrei Shleifer & Robert W. Vishny, *Equilibrium Short Horizons of Investors and Firms*, 80 AM. ECON. REV. 148-53 (1990).

³³ The observation that market inefficiencies can cause both under- and over-investment belongs to Lucian Bebchuk & L. Stole, *Do Short-Term Objectives Lead to Underinvestment or Overinvestment in Long Term Projects?*, 48 J. FIN. 719 (1993).

³⁴ While it is difficult to find direct evidence for myopic mispricing, it was recently shown that high levels of transient ownership are associated with an overweighing of near-term expected earnings. This finding supports the concerns of many corporate managers about the adverse effects of an ownership base dominated by short-term focused institutional investors. See Brian J. Bushee, *Do Institutional Investors Prefer Near-Term Earnings over Long-Run Value?*, 18 CONTEMP. ACCT. RES. [page number] (2001).

³⁵ Daines & Klausner, *supra* note 1, at ____.

explanation for the divergent ATP practices among IPO firms. In Figure 1, the X-axis is the number of firms that do not adopt defenses and the Y-axis is the costs arising from the decision of a given firm to remain unshielded. The curve therefore represents the marginal costs of going public without defenses for any number of unshielded firms in the market. Put differently, it is a supply curve for producing unshielded targets. The supply curve is upward sloping since firms diverge in their taste for ATPs. Only some firms, the ones with high R&D levels, have high costs for going public unshielded, since ATPs protect their managers in a myopic market. Other firms, with lower R&D levels, do not suffer as much from the market myopia and therefore will easily forego defenses.

Now, in order to identify the cutoff beyond which the firms will refrain from going public without shields, we must also consider the benefits of going public unshielded. Assume, for example, that the benefits of going public without shields is represented by the dotted horizontal curve. As a result, all firms to the right of the intersection between the two curves will not go public without shields. Simply put, their costs of producing an unshielded target are higher than the benefits derived from being unshielded. Conversely, all firms to the left of the intersection will not adopt defenses, since their costs of producing an unshielded target are lower than the benefits derived from that product.

As we shall see below, however, this theory alone (like the other classic supply-side theories) cannot, and empirically does not, explain ATP practices of firms that go public. It needs to be complemented by the demand-side theory that this paper proposes. However, we must still elaborate on the other two supply-side theories, as the differences between the various theories are important for our later discussion.

The second supply-side theory concentrates on the *ex post* influence of ATPs, i.e., the payoff to shareholders once a takeover takes place. Shareholders' gain from a takeover event is the price per share they receive above the market price of the share prior to the takeover, i.e., the takeover premium. An effective ATP, by definition, prevents some takeover attempts from materializing, while deterring other interested parties from even launching a bid.³⁶ Therefore, and as has been empirically proven, the takeover frequency of shielded targets is lower than that of their unshielded counterparts.³⁷ In turn, the lower frequency impairs the expected takeover premium (i.e., the average premium) that shareholders can hope for.

However, theoretically, at least some of the firms may do better with ATPs from a takeover-premium perspective, notwithstanding the lower takeover frequency such ATPs bring about. The reason is that in some cases, managers can use the discretion ATPs grant them to negotiate a higher bid price or to put off the bid in hope of receiving a better offer from another bidder.³⁸ Put differently, in some cases, ATPs may solicit higher premiums, which may compensate for the lower takeover frequency.³⁹

³⁶ The board of directors has discretion to accept the bid, even when an ATP is in place. However, the members of the board may abuse ATPs to their advantage by entrenching themselves in their current jobs, while disregarding the interests of shareholders.

³⁷ See Lucian A. Bebchuk et al., *THE POWERFUL ANTITAKEOVER FORCE OF STAGGERED BOARDS: THEORY, EVIDENCE AND POLICY* (NBER Working Paper No. W8974, 2002), at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=314645; Field & Karpoff, *supra* note 1, at ____.

³⁸ The kernel crux of the argument is that managers have better means and incentives to negotiate an improved deal than does the body of scattered shareholders. Granting takeover defenses to managers empowers them to conduct such negotiations. See, e.g., Gilson, *supra* note 27; Bebchuk, *supra* note 27; Elazar Berkovitch & Naveen Khanna, *How Target Shareholders Benefit from Value-Reducing Defenses Strategies in Takeovers*, 45 J. FIN. 137 (1990); Harry DeAngelo & Edward M. Rice, *Antitakeover Charter Amendments and Shareholders Wealth*, 11 J. FIN. ECON. 329-60 (1983); David S. Scharfstein, *The Disciplinary Role of Takeovers*, [volume number] REV. ECON. STUD. 185-200 (1988); Rene M. Stulz, *Managerial Control of Voting Rights: Financing Policies and the Market for Corporate Control*, 20 J. FIN. ECON. 25-54 (1988); Rene M. Stulz, *Managerial Discretion and Optimal Financing Policies*, 26 J. FIN. ECON. 3 (1990). On the empirical side, Comment & Schwert, *supra* note 17, found that the presence of a poison pill increases the takeover premium. However, since most firms without poison pills can easily and rapidly adopt a pill, the significance this finding is doubtful.

³⁹ In addition, antitakeover mechanisms may enable managers to block coercively designed bids. The coercion results from a front-loaded bid, i.e., a bid that offers the tendering shareholders more than the value of untendered stock. If shareholders believe that enough shareholders will tender and therefore the bid will succeed, they will rationally elect to tender their stock as well, even if it would have been better for all shareholders to cooperate rather than to tender their

Researchers further speculate that the firms that are most likely to need ATPs for negotiation purposes are those that exist in market sectors with low merger and acquisition (M&A) activity. Where M&A activity is high, competition (or expected competition) among the different potential bidders will drive the takeover premium up, even without ATPs. However, where few bidders are available, it is important to install an ATP; otherwise the hostile bidder will not give the best offer that the shareholders can hope for.⁴⁰

This explanation may also be phrased as a supply-side argument and can be depicted by the graph in Figure 1: Firms differ in their costs of producing an unshielded target. Firms in market sectors that do not enjoy much takeover activity can take advantage of ATPs and will therefore resist going public without shields. Conversely, firms in flamboyant takeover environments receive high premiums even in the absence of ATPs and will therefore easily reject adopting them when going public. Now, in order to know exactly which of the companies would go public without defenses, we must consider the payoff shareholders would receive from owning an unshielded firm. All firms to the left of the intersection of the two curves in Figure 1 enjoy lower costs of producing an unshielded target than the gains such tactics provide, and therefore they will all go public without shields. The contrary is true for firms to the right of the intersection, where M&A activity is lower than a certain threshold and therefore ATPs are highly valuable to those firms.

Finally, before continuing to the demand-side theory advanced in this paper, we should consider yet another supply-side theory. This third theory may also be explained using the framework of Figure 1, but we must first shed some light on the classic notions regarding the IPO process that we have implicitly adopted so far in our discussion. According to Jensen and Meckling, firms that go public will select corporate governance terms that are optimal for the public shareholders.⁴¹ The reason for this is that prior to the IPO, ownership is rather concentrated and these owners can maximize the value they receive in the IPO only if they satisfy the will of the prospective public shareholders. Any sub-optimal governance term would

stock. See Lucian A. Bebchuk, *The Pressure to Tender: An Analysis and a Proposed Remedy*, 12 DEL. J. CORP. L. 911, 917-31 (1987); Lucian A. Bebchuk, *Toward Undistorted Choice and Equal Treatment in Corporate Takeovers*, 98 HARV. L. REV. 1695 (1985).

⁴⁰ This interpretation of the bargaining power theory is tenuous. It assumes that the more M&A activity present in the industry, the less ATPs are needed, because competition will drive the prices up notwithstanding defenses. However, one could make the opposite argument, that when potential competition is present, ATPs are most valuable for driving up the price because delaying the takeover will definitely allow competition to emerge. Put differently, ATPs may provide leverage even in an environment with high levels of M&A activity.

⁴¹ Jensen & Meckling, *supra* note 3; see also Frank H. Easterbrook & Daniel R. Fischel, *THE ECONOMIC STRUCTURE OF CORPORATE LAW* 4-7 (1991).

immediately reduce the firm market value in the IPO, which, in turn, would lower the returns for the pre-IPO owners.⁴² Therefore, pre-IPO owners will always adhere to professionals' advice regarding the governance terms that are best for the public shareholders.

This conclusion, however, is not valid vis-à-vis firms with substantial considerations of private benefits of control. Control of the firm generally produces benefits that are not enjoyed by the public shareholders. These benefits may peak in some firms due to, for instance, the fame that a successful sport club brings to its owners or the ability to divert resources for the private use of the controller in firms with vast cash flows.⁴³ In such circumstances, it has been shown that pre-IPO owners may install ATPs in the corporate charter even if ATPs harm the value of the firm for the public shareholders.⁴⁴ The pre-IPO owners, on the other hand, may be willing to sustain the decrease in the value of the shares, since ATPs help them preserve their private control benefits. In the absence of ATPs, they might receive a higher price per share in the IPO, but a hostile bidder may easily rob them of their precious control benefits in ousting them from the positions they hold in the company.⁴⁵ Therefore, the greater the

⁴² And in our framework, ATP decisions of IPO-stage firms are supposed to be optimal in view of the fact that the securities market carefully prices public offerings and the fact that entrepreneurs in such situations are guided by market professionals to adopt the structures that the market favors. The ATP decisions of seasoned firms, in contrast, are not affected by such exonerating mechanisms, but as was previously explained, market forces currently render the ATP status stagnant after the IPO stage.

⁴³ Jensen termed such corporations "cash cows." Michael C. Jensen, *Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers*, 76 AM. ECON. REV. 323-29 (1986).

⁴⁴ The reason for this is, in essence, that a hostile control transaction does not generally compensate the incumbent controller for the loss of private benefits. See Lucian A. Bebchuk, A RENT-PROTECTION THEORY OF CORPORATE OWNERSHIP (Harvard Law & Economics Discussion Paper No. 260, 1999), at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=168990. Other versions of the argument also exist and are surveyed by Coates, *supra* note 1, at __.

⁴⁵ To demonstrate, imagine a firm that is worth 100 to the shareholders without ATPs and additionally provides its managers with non-monetary private benefits of 20 that cannot be shared with the public shareholders. However, without ATPs, the chances of a takeover that would oust the entrepreneur is 50%, and therefore the entrepreneur values the option of taking the firm public without defenses at 110 (i.e., $100 + 50\% \cdot 20$). Alternatively, with ATPs, the private benefits would remain the same, but the firm's inherent value would decline to 95 because managers may reject value-enhancing mergers. For simplicity, let us further assume that the probability of a takeover with defenses is 0. Consequently, the entrepreneur would value the company with ATPs at 115 (i.e., $95 + 20$) and would prefer to take the company public with takeover shields ($115 > 110$). Note that the value of the firm with ATPs in this case would be lower than the comparable value without ATPs, both in the eyes of the public shareholders ($95 < 100$) and from the perspective of social welfare ($95 + 20 < 100 + 20$). Nonetheless, the entrepreneur would prefer to install ATPs to protect her

control benefits the firm supplies, the higher the costs to the pre-IPO owner of going public unshielded.

Once again we encounter a supply-side explanation for the ATP practices of IPO-stage firms. This time, the firms in Figure 1 with high costs of going public without defenses are those that furnish high private benefits of control. Any firm to the right of the intersection of the curves has control benefits levels that are so high that its costs of going public without defenses are higher than the gains of going public without defenses. Consequently, all these firms will adopt ATPs before going public, while the rest of the firms will remain unshielded.

Note, however, the differences between this supply-side theory and the previous theories. The other two theories suggest that both ATP-adopting and non-adopting firms will opt for the tactic that maximizes the market value of the firm. The private-benefits hypothesis suggests that both adopting and non-adopting firms select the tactic that maximizes the benefits of the pre-IPO owners, even if such a tactic does not maximize the market value of the firm. This does not mean, however, that public shareholders lose anything by buying the stock of shielded companies. If ATPs are inimical for public shareholders but the market perfectly prices these harmful governance terms, then the public shareholders simply pay less for firms that adopt ATPs. The entrepreneurs and the rest of the pre-IPO owners may, nevertheless, adopt these defenses because they help to maintain private benefits of control that are not reflected in the market value of the firm.

The three theories presented above complement one another to explain why some firms adopt ATPs at the IPO stage. The harder it is to evaluate the long-term prospects of the company, the more private benefits the company furnishes its owners, and the fewer potential bidders in the company's market sector, the more likely it is that such a firm will adopt ATPs. However, empirical studies have failed to uncover any evidence that is in line with these predictions. This does not undermine the theories altogether. Some effects, such as those related to private benefits, are hard to identify, while others may be too mild to gauge.⁴⁶ But more importantly, this paper argues that the empirical studies failed in that they ignored (as did the literature in its entirety) the demand-side theory of takeover defenses. Therefore, the conclusions of the different empirical studies, which tied ATP-

private consumption of control benefits, which is would be endangered by the prospects of a hostile takeover.

⁴⁶ Some evidence of the private benefits of control theory was found in another context, when researchers analyzed the determinants of concentrated ownership. See Asjeet S. Lamba & Geoffrey P. Stapledon, *THE DETERMINANTS OF CORPORATE OWNERSHIP STRUCTURE: AUSTRALIAN EVIDENCE* (Univ. of Melbourne Public Law Research Paper No. 20), available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=279015.

adoption trends to different market failures in the IPO process, may be overreaching.⁴⁷

We suggest that instead of sacrificing the classic understanding of the IPO process, we should first reevaluate some firmly held understandings regarding the takeover phenomenon.

III. A Simple Demand-Side Model of Takeovers

Conducting a comparative analysis of potential targets is a natural step in the business reality of acquisitions.⁴⁸ The fact that industry rivals can become alternate takeover targets was proven in a recent empirical study showing sharp rises in the stock values of rival firms when an anticipated merger falls apart.⁴⁹ In deciding whether to make an offer, bidders must weigh the relative functional or business virtues of each of the potential targets against the relative ease or difficulty of their acquisition. Since takeover defenses make the acquisition process lengthy and expensive, the takeover shields of all relevant targets must be considered. Clearly, if target *A* is equally attractive to the bidder as target *B*, then the one that is less shielded is the one more likely to be pursued. If, however, acquisition of the shielded target can produce much higher gains than acquiring the unshielded one, then the former will be pursued, even if it would have been easier to acquire the latter.

In other words, takeover defenses divert some takeover activity in the marketplace from shielded to unshielded enterprises.

⁴⁷ For instance, Daines & Klausner mention a widely held, though infrequently cited, view that the IPO pricing is imperfect. However, they do not support this view, showing that it is not compatible with the empirical data. Daines & Klausner, *supra* note 1, at 113.

⁴⁸ In a candid interview to the business press, William Steere, the CEO of Pfizer, revealed the process that led Pfizer to launch its famous hostile takeover bid to acquire Warner Lambert. The decision to acquire Warner Lambert resulted from a careful analysis of the fitness and costs of other takeover alternatives. The costs of takeover shields are not mentioned explicitly by Pfizer's CEO, but Warner Lambert was cited by the business press as having had minimal takeover protection and, hence, was relatively easy to acquire. See Robert Langreth, *Behind Pfizer's Takeover Battle: An Urgent Need*, WALL ST. J., Feb. 8, 2000, at B-1.

⁴⁹ The study examined merger gains to targets and their industry rivals and found evidence consistent with our argument regarding diversion of takeover activity. It found that rivals benefit from the merger announcement, but the termination results in significant negative returns for targets and significant positive returns for rivals. The fact of termination gains to rivals supports the hypothesis that rival firms could become acquisition targets. The gains are positively related to subsequent acquisition activity involving the target and the extent of merger activity in the industry and inversely related to the relative size of the target rivals, the presence of a competing bidder, and the regulatory environment. See Akhigbe et al., *supra* note 5.

This behavior entails a type of externality among potential targets that has heretofore been ignored by the takeover literature.⁵⁰ As will be shown shortly, this type of external influence may explain the divergence among firms with regard to ATP practices.

In the following model, we make some simplifying assumptions to emphasize the demand side of ATPs, i.e., the price the market is willing to pay for unshielded targets. First, in order to abstract away from supply-side considerations that are based on the heterogeneity of firms, we assume that all firms are similar at the stage that they go public. Therefore, they all have to forego similar levels of benefits when going public without defenses. Second, we assume that the potential benefits of ATPs are derived only from the ability of shielded firms to extract high takeover premiums from bidders (but any other benefit, such as the ability to protect private benefits of control, would lead to similar conclusions).

Now, suppose there are two potential takeover targets, T_1 and T_2 , and two bidders, B_1 and B_2 . We model the adoption of antitakeover mechanisms and their effects on subsequent bidding behavior as a two-period game. In the first period, the two target firms decide whether to adopt ATPs. Bidders observe this decision and decide in the second period on a bid for the target companies.

In this simple model, a firm consists of a shareholder and a manager. The shareholder can take one of two actions: she can decide to delegate decision-making regarding a takeover bid to the manager by adopting harsh takeover shields (action S) or she can choose to hold on to that power (action NS). The manager holds a certain share a in the firm's stock. To abstract away from standard agency problems, we assume that the manager has no disutility of effort. However, the manager incurs a cost c from losing his job if the firm is taken over by a bidder in the second period. We assume that the bidder cannot "bribe" the manager to accept an offer with a low premium, nor will he offer the manager to hold on to his position after the takeover.⁵¹ This implies that the manager will consent to a

⁵⁰ The contemporary literature identified various other externalities. See, e.g., Sanford Grossman & Oliver Hart, *One Share, One Vote, and the Market for Corporate Control*, 20 J. FIN. ECON. 175 (1988); Lucian A. Bebchuk & Luigi Zingales, CORPORATE OWNERSHIP STRUCTURES: PRIVATE VERSUS SOCIAL OPTIMALITY (NBER Working Paper Series, 1997) (externalities on corporate bidders); Andrei Shleifer & Lawrence H. Summers, *Breach of Trust in Hostile Takeovers*, in CORPORATE TAKEOVERS: CAUSES AND CONSEQUENCES 33 (Alan Auerbach ed., 1988) (externalities on the employees of takeover targets); Lucian Bebchuk, *The Case for Facilitating Competing Tender Offers: A Reply and Extension*, 35 STAN. L. REV. 23 (1982) (externalities on consumers, tax authorities, etc.).

⁵¹ In fact, the federal securities laws do not allow the bidder to pay the managers in a tender offer a higher price per share than the price being offered to other shareholders of the target company. However, some personal transfers to the managers are possible, for instance, a "golden parachute" arrangement that

merger only if the premium p paid by the bidder to the stockholders of the company is sufficiently large. That is:⁵²

$$p \geq c$$

The manager will reject some takeover bids in the second period, which, though profitable to the owner, are costly to the manager. However, the owner, in turn, credibly commits to reject low takeover bids in the second period by irreversibly delegating the decision-making power to the manager. Therefore, owners might implement an antitakeover mechanism in the first period for strategic reasons.

There is *ex ante* uncertainty about the bidders' valuations of each of the two target firms. With probability q , target firm T_i has a valuation of $w > ?$ for Bidder B_i and a valuation $?$ for Bidder B_j ($j \neq i$).⁵³ With probability $1 - q$, target firm T_i has a valuation of $?$ for both bidders. This setup captures the idea that bidders can derive private benefits (for instance, synergy effects) from taking over a target firm, due to a unique characteristic that each target may develop. Both w and $?$ are private values for the bidders beyond the stand-alone value of the firm. We also assume that each bidder can take over no more than one company.

The second period is subdivided into three sub-periods. In sub-period 2.1, the uncertainty about the bidders' valuations is resolved and they become common knowledge. In sub-period 2.2, Bidder B_i makes bids $b_{ij}=0$ for each of the two target firms j .⁵⁴ In sub-period 2.3, the target firms decide whether to accept a takeover bid and payoffs are realized.

We look for sub-game perfect equilibria of this game and solve through backward induction. In the second period, we have to distinguish between three possible cases.

Case I: Neither firm adopts ATPs. In this case, both bidders will submit bids $b_{ij}=0$ for both firms, regardless of their valuation.⁵⁵ Both

guarantees the managers high severance pay in the event that they are ousted in a takeover.

⁵² Assume, for example, that the manager holds only 1% of the company's stock but derives \$10,000,000 from holding on to his position. If this manager has complete discretion whether or not to accept a bid, he will reject an offer that consists of a premium of less than one billion dollars. The manager would receive only 1% of the premium, while foregoing all the benefits attached to his position in the company.

⁵³ And if T_i has a valuation of w for B_i , while T_j has a valuation of w for B_j , then $B_j \neq b_i$.

⁵⁴ We do not have to allow bidders not to bid for a company, because they can always bid 0 for a target and bidding is assumed to be costless. Remember that $B=0$ means that bidders pay only the market value of the target, without sharing its synergy gains.

⁵⁵ In reality, these results stem from the fact that dispersed shareholders do not have the ability to negotiate with the bidders and therefore cannot entertain competition that could drive the price up.

targets will accept one bid each, and they are indifferent to either bid. Note that the bidder appropriates the entire surplus.

Case II: *Both firms adopt ATPs.* In this case either target firm can only be acquired by a bidder if the bidder's valuation is greater than c/a . We assume that $c/a < w$. Otherwise, the antitakeover mechanism will prevent *all* takeovers, which cannot be in the interest of the owner. Since for each of the targets, there is a probability of q of being given the valuation of w by one of the bidders (with said bidder giving a low valuation for the other target), each target will receive one bid $b_{ij} = w$ with a probability of q .

Case III: *Only one firm adopts ATPs.* Without loss of generality, assume that T_1 is protected. To make this case interesting, let us assume that $c/a > ?$. This implies that a bidder will attempt a takeover only if it makes a high valuation of the target firm. Otherwise, the bidder will prefer to bid for the second firm. In this case, both bidders will compete for target T_2 with a bid of $b_{i2} = ?$, and T_2 will be sold to B_2 for a premium of $p = ?$.⁵⁶

Since we have solved the equilibria of the period 2 sub-games (i.e., the three different Cases), we can present the decision-making problem of the target firms as a two-by-two game in the first period. Recall that the shareholders of each target firm can take two possible actions: either adopt takeover shields (S) or else retain control (NS).

⁵⁶ Any price below $?$ does not achieve a Nash equilibrium, because both firms have an incentive to bid $p + \epsilon$. If B_2 gives a low valuation, the target can go to either bidder. If B_2 gives a high valuation, it will obtain the target for certain (but will not have to offer more than v , since the target does not have ATPs).

		T₁	
		NS	S
T₂	NS	0, 0	(1-q)v, qc/a
	S	qc/a, (1-q)v	qc/a, qc/a

if $q < \frac{1}{1 + C/\bar{a}V}$ then Nash is (S, NS) and (NS,S)

The game has the unique equilibrium (S,S) if $q > 1/(1+c/ac)$ and two Nash equilibria (S, NS) and (NS, S) if $q < 1/(1+c/av)$. The outcome of the simple model is that for intermediate values of c , ATPs prevent some takeovers, but extract a high price from high-valuation buyers.⁵⁷ Shareholders' optimal strategy is then dependent on the probability q of finding a high-valuation bidder in the second period. If that probability is high, then both target firms will prefer takeover defenses, since the shareholders of the target can extract high rents from the potential bidder.

We will see firms adopting both strategies if the probability of finding a high-valuation bidder is not too high (in particular, $q < 1/(1+c/av)$). In such an environment, some firms can benefit from not adopting takeover defenses because of the resultant competition among bidders.

This competition is the main lesson of the simple model, which demonstrates the fact that ATPs not only prevent some takeover activity, but also divert some of it to unshielded firms. The simple model uses a limited framework of two targets and two bidders, but it can be extended to a large number of firms without a

⁵⁷ Put differently, shareholders will choose to implement antitakeover mechanisms if the manager has relatively few incentives to use them (c is low). If c is too high, the manager will prevent all takeovers. In this case, the firm will choose against using any takeover defenses.

loss of generality.⁵⁸ Every firm that adopts ATPs increases the chances that a relatively low-valuation bidder will not be able to take it over, and this, in turn, increases the probability of competition emerging for unshielded targets. Therefore, the more firms that adopt defenses, the higher the benefits for their unshielded peers.

This conclusion may be regarded as a demand-side theory of takeover defenses that supplements each of the supply-side theories of the classic literature.⁵⁹ Figure 2 below delineates our argument in the framework we used in Figure 1.

The familiar upward sloping supply curve, which we saw in Figure 1, may be the result of any one of the supply-side theories we have already encountered. Heterogeneity among firms causes some of them to require much compensation to produce an unshielded target. The new feature of Figure 2 in relation to Figure 1 is the downward sloping demand curve. Bidders—i.e., the potential buyers of the unshielded products in the marketplace—are willing to pay more for unshielded targets when few such products are available. Put differently, the more firms there are that adopt ATPs, the less unshielded targets remain in the market, and thus those remaining targets elicit a great deal of interest from potential buyers, which, in

⁵⁸ For a model with large finite number of bidders and targets, see Sharon Hannes & Markus M. Mobius, ONE SIZE DOES NOT FIT ALL: DIFFERENCES IN ANTITAKEOVER DEFENSES AMONGST SIMILAR FIRMS (2001) (unpublished manuscript, on file with author).

⁵⁹ Without any supply-side theory, the mere belief in diversion of takeover activity does not necessitate the conclusion that only a portion of the firms adopts ATPs. Theoretically, ATPs may be harmful for the shareholders of the adopting firm even when very few firms remain unshielded and diversion of takeover activity peaks. The opposite scenario is also possible, however.

turn, leads to more takeovers and more takeover premia for the shareholders.

The market equilibrium is at the point of intersection between the demand curve and supply curve. All other positions are unstable. When there are many unshielded targets (and few targets with ATPs) in the market, the demand for unshielded firms is low, but this low demand means that not many firms are willing to produce an unshielded target. This will occur as long as the supply curve tops the demand curve, which represents all situations where unshielded targets are too costly to produce. Conversely, on the left-hand side of Figure 2, few firms are unshielded and the demand for such firms is high, but this high demand means that more firms will go public without defenses. This will be the case as long as the demand curve tops the supply curve, which, in turn, will mean that more firms can gain by producing unshielded targets. The market is simply willing to pay for those targets more than what takes to produce them.

Note that we intentionally drew a fairly elastic supply curve, since the empirical literature was unable to identify any supply-side influences. Nevertheless, when our demand curve is added to the classic framework, the market reaches a point where only a certain proportion of the firms adopt ATPs. The marginal firm is indifferent to the adoption or rejection of ATPs, but the performance of all other firms is affected by the adoption or non-adoption of ATPs, subject to their respective positions on the supply curve.

We now move on to show how the addition of the demand-side theory to the existing framework in the literature can shed some light on recent empirical findings. The demand-side theory can also explain why the different hypotheses of market failure suggested in the empirical literature might be unjustified.

IV. The Explanatory Power of the Demand-Side Theory and Its Alternatives

Three contemporary empirical studies found that IPO-stage firms diverge in their ATP preferences,⁶⁰ but none could explain the divergence on the basis of any existing supply-side theory.⁶¹

⁶⁰ The fact that many IPO-stage firms adopt ATPs bewildered many commentators who used to believe that “[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.” Easterbrook & Fischel, *supra* note 41.

⁶¹ Coates, *supra* note 1; Daines & Klausner, *supra* note 1; Field & Karpoff, *supra* note 1.

Therefore, each of the studies suggested its own innovative theory of market failure at the IPO stage. In this section, we show that the findings of the empirical studies can be explained by the demand-side theory of ATPs proposed in this paper and do not require any market-failure hypothesis. Moreover, the possible existence of some market failures does not rule out the demand-side theory.

A. Daines & Klausner (2001) and the Suggestion that the Market Misprices ATPs

Daines & Klausner investigated more than three-hundred IPO-stage firms during the period of 1994 to 1997.⁶² They sampled many IPO corporations backed by either venture capital or LBO experts. Daines & Klausner reasonably assumed that these corporations with professional pre-IPO investors could not be abused by their managers at the IPO stage, nor would they resort to ATPs by mistake. Venture capitalists and LBO experts are both sophisticated investors with great influence over the firms they invest in, which presumably leads to an optimal governance structure at the IPO stage.⁶³

The most salient feature of Daines & Klausner's findings is that IPO firms diverge greatly with respect to their ATP practices. Almost half of the firms sampled adopted harsh ATPs (mostly staggered boards), and 18% adopted milder ATPs.⁶⁴ The remaining firms refrained from adopting ATPs altogether. Most importantly, similar findings were revealed in a sub-sample of firms with highly sophisticated outside shareholders such as venture capital or LBO experts.

Daines & Klausner then examined whether the dissimilarities among the examined firms led to the divergent behavior. They tried to test all three classic supply-side theories, but none could be supported by the empirical evidence.⁶⁵ The authors therefore argued that it is

⁶² Daines & Klausner, *supra* note 1, at 92.

⁶³ Robert Gertner & Steven N. Kaplan, THE VALUE MAXIMIZING BOARDS (SSRN Working Paper Series No. 10563, 1998) at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=10563 (exploring the effects of efficient board structures on firm performance).

⁶⁴ Daines & Klausner, *supra* note 1, at 95-96, 110.

⁶⁵ Specifically, they claimed that the myopia theory and the bargaining power theory were refuted by the evidence, while the private benefits hypothesis was neither refuted nor supported. We are not sure that bargaining power and myopia hypotheses were indeed refuted by the Daines & Klausner findings. First, the authors assumed that the more M&A activity in the industry, the less ATPs are needed, because competition will drive the prices up regardless of defenses. However, one could make the opposite argument, that when potential competition is present, ATPs are most valuable for driving up the price, because delaying the takeover will definitely allow competition to emerge. Second, the examination of the myopia hypothesis is also imperfect. The authors assume that high R&D levels in the industry will lead to adoption of ATPs because of the fear of an opportunistic bid. However, it has been also argued in the literature that R&D levels may be excessive when asymmetric information exists. See Bebchuk

practically impossible to attribute the variance in ATP practices to the dissimilarities among the issuing firms.

Daines & Klausner proposed the possibility (which they subsequently seem to refute) that the IPO process is flawed and incapable of pricing the harmful effects of ATPs. Under this hypothesis, pre-IPO investors collectively abuse the public by selling overpriced securities. This market failure explanation argues against the well-established understanding of the IPO market accurately pricing corporate governance mechanisms.⁶⁶ Pre-IPO owners, so the Daines & Klausner argument goes, entrench themselves as managers by means of ATPs, while the market fails to penalize them by discounting the value of their firm for this inefficient behavior.

Daines & Klausner note, however, that their empirical findings cast doubt on this argument. Indeed, although many firms adopt defenses, many others reject them, and at least 50% of all firms do not adopt harsh defense measures. If defective governing structures were to yield advantages for managers without harming the firm's value, then the logical outcome would be for all firms to use them. Daines & Klausner therefore conclude, "This interpretation, however, is also problematic ... if ATPs are not fully priced, why don't more firms adopt strong ATPs? Assuming that management would generally favor ATPs, all things being equal, the fact that strong ATPs are not universally adopted implies that there is some constraint on their adoption ...".⁶⁷

The demand-side theory of ATPs in fact imposes the very constraint Daines & Klausner were looking for: the more firms that adopt ATPs, the more valuable it becomes to remain unshielded. Furthermore, there may be a point at which the market becomes saturated with ATPs. Therefore, the search for a market failure that underlies the empirical outcomes is unwarranted. Even if heterogeneity among firms does not fully explain the findings, the demand-side argument may still fill in the gap.

B. Field & Karpoff (2002) and the Assertion that Managers Abuse the Pre-IPO Investors Who Are Not Management

Field & Karpoff also conducted a comprehensive research of ATPs at the IPO stage, investigating over a thousand firms that went

& Stole, *supra* note 33. Thus, it is possible that the exposure of targets with excessive R&D to the market of corporate control can cure part of the waste, assuming that specialized bidders can identify excessive R&D levels. To sum up, while we do not fully accept the interpretation of Daines & Klausner, they did expose the fact that it is hard to key dissimilar ATP practices to dissimilarities among firms.

⁶⁶ See Jensen & Meckling, *supra* note 3.

⁶⁷ Daines & Klausner, *supra* note 1, at 113.

public between 1988 and 1992.⁶⁸ This is the earliest sample of IPO-stage firms to have been collected. Fifty-three percent of the firms sampled had at least one takeover defense, while the rest refrained from adopting ATPs altogether.⁶⁹

Field & Karpoff argue that firm heterogeneity can explain the divergent ATP behavior, but not the type of heterogeneity that is emphasized by the classic supply-side theories. They found that IPO firms install more defenses if they have managers who are not well monitored by their non-managerial pre-IPO investors and when the managers lack incentives to operate well.⁷⁰ Put differently, Field & Karpoff believe that while the market discounts the use of ATPs, pre-IPO managers nevertheless use defenses to their advantage, but to the detriment of the firm's value, unless these managers are carefully monitored. The losers here are the pre-IPO investors who are not on the managing team and therefore suffer from a low valuation of the company without enjoying the benefits that ATPs confer on management. Therefore, the sub-optimal results are the consequence of a market failure in monitoring the managers of closely-held firms prior to those firms' going public.

It is interesting to note that this argument does not contradict the demand-side theory proposed in this paper. The hypothesis raised by Field & Karpoff may serve as a novel supply-side theory. Some firms have higher preferences for defenses (based on distorted managerial incentives), but the existence of many shielded targets enhances the value of the remaining unshielded firms until the point where the decision-makers in the marginal firms are indifferent to adoption or rejection of ATPs. As explained before, diversion of takeover activity collapses the pros and cons of being either shielded or unshielded for the marginal firm.

This discussion presumes, of course, that the Field & Karpoff finding is well founded. The Daines' & Klausner results, however, undermine these results. First, Daines & Klausner found in their sample that the higher the level of management ownership, the more severe the ATPs adopted, which completely contradicts the findings of Field & Karpoff.⁷¹ Thus, from the Daines & Klausner perspective, the *more aligned* the incentives of managers with the interests of shareholders, the more likely those firms are to adopt defenses. Second, and more importantly, Daines & Klausner examined a large

⁶⁸ Field & Karpoff, *supra* note 1, at 1.

⁶⁹ Field & Karpoff, *supra* note 1, at 26.

⁷⁰ "Among IPO firms, the likelihood of a takeover defense is positively related to managers' compensation, board size, and whether the CEO is also board chairman, and negatively related to managers' shareholdings." Field & Karpoff, *supra* note 1, at 27.

⁷¹ Daines & Klausner, *supra* note 1, at 109-10. Field & Karpoff's results, on the other hand, are not unanimously significant in all their regressions. See the results of their sensitivity tests in Field & Karpoff, *supra* note 1, at 20.

control sample of IPO firms with venture capital and professional LBO investors.⁷² Those firms did not have fewer defenses than other firms, which refutes the argument that rigorous monitoring leads to fewer defenses.⁷³

C. Coates (2000) and the Failure of the Market for Legal Advice

Coates investigated two samples of IPO firms: the main group of data includes over three-hundred IPOs that went public between 1991 and 1992, accompanied by a smaller control sample from 1998. His basic findings follow the lines of Daines & Klausner's findings, as well as those of Field & Karpoff. There is a high degree of variance among the ATP practices of firms that go public. Although the adoption of ATPs has gained in popularity over time, the 1998 sample indicates that there are still many firms choosing not to adopt defenses.

Coates, like Daines & Klausner, brings empirical refutation of supply-side theories that might explain why ATPs are better suited to some firms than to others. Coates argues that the divergence in firm behavior derives from a failure in the market for legal advice. Coates found that law firms are systematically either pro defenses or anti defenses, the different characteristics of their clients notwithstanding. He concludes from this that lawyers' preferences, rather than clients' needs, carry greater weight in determining whether a firm goes public with or without defenses. This means, according to Coates, that some of the law firms are simply wrong in the advice they give, and Coates, unlike other scholars, makes it quite clear that he thinks that the optimal solution for all firms is to adopt ATPs.⁷⁴

⁷² Daines & Klausner, *supra* note 1, at 93.

⁷³ Field & Karpoff had one more important finding. They followed the firms in their sample for five more years after the IPO stage in order to measure the impact of ATPs on takeover activity and premiums. Although five years may be too short a period from which to draw absolute conclusions, many of the firms (168, or 16.5% of the sample) were acquired during this period. The first related finding is that ATPs actually do deter bids. The takeover probability during the five-year period was 16.6% for unshielded firms and 11.3% for firms with at least one defense. Field & Karpoff, *supra* note 1, at 25. Field & Karpoff did not find, however, that ATPs tend to raise takeover premiums. This contradicts the supply-side theory about bargaining power. However, it does not contradict the demand-side theory, which may complement the supply-side theories, including the one argued for by Field & Karpoff. In any case, the Field & Karpoff study suffers from at least one weakness, since unlike other empirical studies that focus on the gravity of defenses, Field & Karpoff focused on the number of defenses, which is a crude measure of the potency of defenses.

⁷⁴ Coates has launched several attacks on the conventional academic conception that ATPs are harmful and raise agency costs. John C. Coates, *Takeover Defenses in the Shadow of the Pill: A Critique of the Scientific Evidence*, 79 Tex. L. Rev. (2000). And as Coates mentions in his work, he was a partner in the firm that is credited with the invention of the poison pill. Coates, *supra* note 1, at ____.

Coates' empirical findings regarding law firms' systematic preferences do not contradict the theory submitted in this paper. If Coates is right and firm heterogeneity is not the operative factor behind the results, it may mean that the supply curve is in fact flat—that is, all firms derive similar benefits from adopting ATPs. Nevertheless, the demand curve may still intersect with the supply curve at some point. The advantages in adopting ATPs dwindle when many firms adopt ATPs. At some point with some portion of the market adopting ATPs, it does not matter any more for any given firm if it adopts defenses or not.⁷⁵ Thus, as emerged from Coates' study, some lawyers always advise their clients to adopt defenses, while others always give the opposite advice, and the market rests on the point of intersection between demand and supply.

Moreover, as long as this equilibrium persists, both proponents and opponents of ATPs can, in good conscience, continue to give the same, uniform advice to their clients, because it does not matter if a firm is shielded or not. Simply put, any legal advice will do when the market is in a state of equilibrium.⁷⁶

Finally, Coates stresses his empirical finding that many lawyers craft either illegal or ineffective defenses. In Coates' view, this is an indication of both the extent to which lawyers are frequently ill-equipped to deal with ATP issues and the fact that clients are easily persuaded to follow poor advice. Ironically, these lawyers and clients may be the real winners in the ATP game. Because it may be irrelevant if a firm adopts defenses or not when the market is in a state of equilibrium, it is certainly best not to waste long billable hours on the issue. As long as there are enough players in the market, such as underwriters, who will not tolerate substantial deviation from the market's point of equilibrium, lawyers can afford to remain rather ignorant with regard to the advantages or disadvantages of ATPs, while taking a free ride on the coattails of market professionals.

D. Testable Predictions for the Demand-Side Theory

⁷⁵ Note that this scenario is a bit different from the one where the supply curve is not flat and firms have different ATP preferences. When firms have different preferences, only the marginal firm is indifferent to ATP adoption. When firms are similar in preferences, all firms are indifferent, but still only part of them adopt defenses.

⁷⁶ If legal advice drives the market to a severely distorted position, then the market professionals will have to expose the problem. For example, the research department of an investment bank can expose the abnormal returns of firms that chose one tactic and thus recommend that new firms systematically adopt or reject defenses depending on what was done by the earlier firms with abnormal returns. Market forces can thus overcome the deviation, and a state of equilibrium will prevail.

The empirical literature discussed above concentrates on supply-side theories. We propose an alternative empirical agenda that will also account for demand-side effects. This proposed inquiry will not only assess the robustness of the demand-side theory of takeover defenses, but also will measure the relative explanatory power of the demand-side theory vis-à-vis supply-side explanations.

The demand-and-supply framework that we have developed shall guide the empirical work. We need to estimate the slope of the demand curve. If takeover diversion is a crucial element, as we have suggested, then the demand curve should be downward sloping, and the steeper the slope, the more pertinent the theory becomes. If, on the contrary, heterogeneity among firms is the main driving force, then we should expect to find a relatively mild slope to the demand curve.

It is possible to derive the slope of the demand curve from the shifts in the supply curve over time or across market sectors. For instance, if one believes that a plausible supply-side explanation is based on the private benefits of control hypothesis, then firms with high levels of private benefits should be found to be more likely to adopt defenses. We may measure private benefits levels with proxies such as: the length of the CEO's term in office; the magnitude of reported self-dealing transactions between the managerial team and the firm; the percentage of board members elected to office after the CEO's appointment; and dummy variables indicating whether the CEO is also the company's founder, whether the CEO is also the chairman of the board, etc. All these private benefit variables should help estimate the slope of the supply curve. Furthermore, we could assume that the supply curve shifts across different sectors or across time (for instance, because of a legal change that makes ATPs more or less potent). These shifts in the supply curve also would enable the estimation of the demand curve slope.

This simultaneous-equations framework should fine-tune earlier empirical work that disregarded the demand-side effect. Failure to account for this effect indicates an implicit assumption that bidders do not pay attention to the relative antitakeover strength of targets. If we are right and takeover diversion due to takeover shields occurs frequently, then our proposed empirical agenda should be able to support the demand-side theory, as well as shed light on its relative importance in explaining the ATP practices of IPO stage firms.

V. Discussion and Summary of the Demand-Side Theory

The demand-side theory submitted in this paper may supplement the three supply-side theories of the classic literature, presented above. Anyone who posits that heterogeneity among firms is the factor that leads some firms to adopt ATPs should also

believe that the market equilibrium is influenced by a decreasing demand for unshielded firms. In this story, the marginal firm is indifferent to ATP adoption and all other firms are better off one way or another, depending on their respective relevant characteristics.

Moreover, the demand-side theory may explain the divergence in ATP practices, even if the supply-side theories are flawed and all firms have similar preferences regarding ATPs at the IPO stage. Diversion in takeover activity may still lead part of the firms to adopt ATPs and the rest to reject adopting them. This story, however, is quite different from the heterogeneity-of-firms story. Since all firms are similar, not only the marginal firm, but *all* firms are indifferent to the adoption of ATPs at the IPO stage.⁷⁷ This is a mixed-strategy equilibrium, where only part of the firms would need to adopt defenses for the equilibrium to persist.

Since under this equilibrium, firms are indifferent to the strategy they choose, it would be helpful to suggest an evolutionary process that leads to a stable state where only some of the firms (those that have similar ATPs preferences) adopt defenses at the IPO stage. In Figure 3 below, we identify a downward sloping demand curve, which also represents the benefits accrued to a firm that elects to remain unshielded. The benefits for the unshielded firm decline the more unshielded firms there are, since there are less shielded firms that divert takeover activity and more unshielded counterparts with whom to share the diverted takeover activity. The supply curve in Figure 3 is flat since all firms are similar in their preferences for ATPs and bear the same costs of foregoing defenses. Since the costs of producing an unshielded target are the relinquished benefits of being shielded, the supply curve also represents the benefits derived by each firm from adopting defenses.

⁷⁷ It is no wonder, then, that the vast empirical research conducted has never been able to provide a clear answer to whether takeover defenses are harmful or beneficial to shareholders. For surveys, see Romano, *supra* note 27; Coates, *supra* note 74; for examples, see DeAngelo & Rice, *supra* note 39; Scott Linn & John McConnell, *An Empirical Investigation of the Impact of Antitakeover Amendments on Common Stock Prices*, 11 J. FIN. ECON. 361-39 (1983); Gregg Jarrell & Annette Poulsen, *Shark Repellants and Stock Prices: The Effects of Antitakeover Amendments Since 1980*, 19 J. FIN. ECON. 127 (1987); Anup Agrawal & Gershon N. Mandelker, *Large Shareholders and the Monitoring of Managers: The Case of Antitakeover Charter Amendments*, 25 J. FIN. & QUANTITATIVE ANALYSIS 143-61 (1990); Victoria McWilliams & Nilanjan Sen, *Board Monitoring and Antitakeover Amendments*, 32 J. FIN. & QUANTITATIVE ANALYSIS 491-505 (1997).

Note that unlike what is depicted in Figure 3, the supply and demand curves theoretically may never intersect. This would mean that ATPs are either entirely harmful or entirely beneficial for all firms with similar ATPs preferences. However, if the two curves do intersect, the diversion of takeover activity has eroded the benefits of defenses to the point where only part of the market should adopt defenses in equilibrium. This equilibrium may be reached through an evolutionary process, as will be highlighted below.

Let us first assume that when a given IPO-stage firm enters the market, all incumbent targets maintain shields (which, on the graph, would be represented by $X = 0$). In this case, it is best for the firm going public not to adopt shields (note how on the left side of Figure 3, the demand curve, representing the benefits of being unshielded, tops the supply curve, which represents the benefits of being shielded). Now, let us assume that another IPO-stage firm enters the market and has to decide whether or not to adopt shields. By this time, however, the ratio of shielded to unshielded has actually changed from what it was when the first firm made its decision, because now there is one unshielded target. Put differently, the second firm does not find itself at the extreme end of the graph where there are zero unshielded firms.

Nevertheless, as long as the demand curve tops the supply curve, the second firm would also refrain from using a shield, as being shielded would still be the inferior tactic. As the number of unshielded targets grows, the market gradually moves toward the right end of Figure 3. Firms will follow suit in not adopting shields until the point at which the demand curve intersects with the supply curve. At the point of intersection, the issue of ATP adoption or rejection is moot to takeover candidates. Thereafter, ATPs should be neither adopted nor rejected in any sort of systematic fashion.

Moreover, if the market shifts back to the left side of Figure 3, for any reason whatsoever, it will gradually slide back to the point of intersection between the two curves in the process that was previously described.

Similarly, if a firm enters the market at a point in time when there are no shielded firms, which is represented by the furthest position on the right of Figure 3, the market will climb to the point of intersection between the two curves. The first firm will reckon that it is better to be shielded when all others are unshielded (which is demonstrated on the graph where the supply curve is higher than the demand curve). Other firms will follow suit up until the point at which the two curves intersect. This point of intersection is a stable equilibrium insofar as market forces would correct any deviation therefrom.

This explanation may also shed light on another mystery of ATP practices among IPO-stage firms. Apparently, over the last decade, the rate of ATP adoption among IPO-stage firms has grown dramatically. Coates argues that this tendency may be the result of a beneficial learning process among lawyers handling IPOs, but the description above offers a different, less optimistic story.

The valuation of an IPO issuer is conducted by the underwriters of the offering who cater to their clients that buy the shares from them and rely on their reputation. This mechanism presses issuers into adopting optimal governance structures. However, if firms are similar in their preferences, as Coates suggested, and the equilibrium is at the point where all firms are indifferent to adoption of ATPs, then the ATP decision will not alter underwriters' valuations of issuers.⁷⁸ The legal advisers of the issuers may interpret this underwriter indifference to the ATP question, which is justified only when the market is close to the equilibrium, as

⁷⁸ This conclusion is viable only if the benefits of ATPs (which takeover diversion erodes) are based on the bargaining power theory or the myopia theory. If, however, the advantages of ATPs are based on the private benefits of control theory, then although in equilibrium the pre-IPO owners are indifferent to ATP adoption, the valuation of firms adopting ATPs would be lower than the valuation of firms rejecting them. The reason for this is that under this theory, the benefits accrued due to ATPs are not reflected in the market value of the firm, since they accrue privately to the managerial team and not to the public shareholders. Note that the private benefits theory can explain the institutional shareholders' disapproval of ATP adoption in seasoned firms. While ATPs are priced at the IPO stage (but some issuers choose to adopt them as explained in this paper), their adoption later on hurts the value of the firm for the public, which does not receive compensation for this harm. For a paper that most clearly presents the question of institutional investor preferences regarding ATPs, see MICHAEL KLAUSNER, INSTITUTIONAL SHAREHOLDERS' SPLIT PERSONALITY ON CORPORATE GOVERNANCE: ACTIVE IN PROXIES, PASSIVE IN IPOs (Stanford Law & Economics Olin Working Paper No. 225, 2001), at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=292083.

a sign that ATPs are always benign factors in a firm's valuation.⁷⁹ Therefore, these same lawyers may systematically advise their clients to adopt ATPs at the IPO stage, for if adopting ATPs does not harm the valuation of the firm, then the managers of the issuer should always prefer it, as it helps them hold onto their offices.

This legal advice, however, pushes the market away from the equilibrium. The market becomes saturated with shielded firms that divert takeover activity to their unshielded peers, making ATP rejection a more favorable strategy. At first, the harm to the adopting firms is not salient, since the demand and supply curves are close to one another near the equilibrium. Eventually, however, when the harm of adopting defenses increases, shrewd market professionals will identify the opportunity and push the market back to its point of equilibrium by systematically rejecting defenses.

To sum up, the demand-side theory proposed in this paper was originally presented as complementary to the existing supply-side theories. The demand and supply theories together depict a full equilibrium theory of ATP adoption. We have argued that recent empirical studies have failed to validate the heterogeneity (or supply-side) theories, since they did not account for the decreasing demand effect for unshielded targets. Hence, the empirical studies might have been wrong in their proposition that some type of market failure is the cause of divergence in the antitakeover behavior of IPO firms in the market. Having restricted our model to firms with similar ATP preferences, we uncovered a novel market failure explanation. Contrary to the empirical studies, however, we are more optimistic about the chances of the market overcoming its temporary flaws.

⁷⁹ In Merton Miller's jargon, it means that ATPs are innocuous or "neutral mutations" in the design of corporate securities. Merton Miller, *Debt and Taxes*, 32 J. FIN. 261, _ (1977).