Organization Theory and the Market for Corporate Control: A Dynamic Analysis of the Characteristics of Large Takeover Targets, 1980–1990

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This paper describes how takeovers are accomplished and why they are not readily accommodated by existing organizational theories. We examined the factors that made organizations vulnerable to takeovers during the 1980s, using event-history techniques on time-series data covering all takeover bids for *Fortune* 500 firms between January 1980 and December 1990. The paper shows that greater organizational slack, age, and having a finance chief executive officer increased the risk of takeover; family control and financial characteristics such as a higher market-to-book ratio lowered the risk; while bank control and intercorporate network ties had no discernable effect. The results indicate an irony: Large corporations that were most successful by the standards of organization theory were most likely to be taken over in the 1980s. We argue that theory about organizations and environments has been premised on an assumption of managerialism that is no longer tenable and that it must adjust to the financial model of the corporation that now dominates economic and policy discourse.

Corporate takeovers became perhaps the most significant events on the organizational landscape during the 1980s. Due to a confluence of factors—including the availability of large supplies of debt financing, innovations in financial instruments, and a climate of relaxed antitrust enforcement—top managers of large corporations previously thought invulnerable to unwanted takeovers abruptly faced a challenge to their control unlike any in the postwar era. Thus, between 1980 and 1990, 144 members of the 1980 *Fortune* 500 (29 percent) were subject to at least one takeover or buyout attempt. While most of these attempts (77) were hostile—publicly resisted by management—the vast majority ultimately led to a change in control, including 59 of the hostile bids and 125 bids overall. By decade's end, due to mergers and takeovers, roughly one-third of the largest industrial corporations in the United States no longer existed as independent organizations, indicating a degree of tumult at the top unparalleled in recent times (Faltermeyer, 1991).

Despite the importance of this trend, relatively little research on takeovers has appeared in the organization theory literature, and the relevance of the market for corporate control for theories about the dynamics of change in organizational populations has gone largely unrecognized. Organization theory, informed by a biotic evolutionary metaphor of organizations, has focused primarily on adaptation—internally generated organizational change—or selection—the death of organizations that fail to adapt (Aldrich and Pfeffer, 1976). Takeovers do not readily map onto either of these abstract notions. Takeovers are not internally generated, yet acquired firms typically undergo substantial organizational change under their new ownership. While death through business failure is not unheard-of among the largest corporations, it is exceptionally rare—several *Fortune* 500 firms sought protection through bankruptcy during the 1980s, but fewer than 1 percent of this population ultimately failed—while takeovers are quite common. Moreover, takeover targets almost always remain

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going concerns after the acquisition, operating in the same industry (or industries), with most of the same employees (Bhagat, Shleifer, and Vishny, 1990). Thus, while takeovers contain elements of both adaptation and selection, they do not easily fit either of these categories.

We argue that the operations of financial markets provided a potent motor of organizational change in the 1980s that challenges the metaphors of adaptation and selection that have dominated organization theory. Researchers on organizations and environments have catalogued the adaptive strategies that organizations can use to reduce uncertainty and increase autonomy (e.g., Thompson, 1967; Pfeffer and Salancik, 1978). Yet these theories are implicitly premised on a conception of the large corporation that takes the managerial revolution as the status quo: Stockholders are dispersed and effectively powerless, large firms are immune from takeover, and thus the largest corporations are run by a self-perpetuating class of professional managers who seek growth and greater environmental certainty with little constraint from shareholders (cf. Meyer, 1991). But as Herman and Lowenstein (1988: 215) pointed out, "The former stability of corporate control and irrelevance of shareholder ownership and voting rights to corporate power has been badly shaken and weakened" due to the construction of a takeover market for the largest corporations. As a result, the most prominent approaches to organizations and environments have themselves fallen out of sync with the realities of corporate control even as takeovers came to represent perhaps the dominant form of organizational transformation among large capitalist firms.

Thus, this study attempts to fill some of the gap in our understanding of corporate takeovers by taking an organizational approach to the market for corporate control. Our intention is not to propose a new general theory of change in organizational populations—the fact that takeovers came in a wave that has substantially run its course indicates that such a theory would be inappropriate. Rather, we hope to provide an assessment of the significance of takeovers for existing organizational theories and to suggest avenues for improvement by examining the factors that made firms vulnerable to takeover during the 1980s. We cannot claim that other forms of change were absent during this period: Self-restructurings, sell-offs, and more mundane changes undoubtedly occurred on a day-to-day basis, and these might be assimilated by adaptive organizational theories, if not by selection approaches. Yet a takeover represents both an undeniably significant change and one that is alien to most organization theory and, thus, most in need of exploration.

THE RISE OF THE MARKET FOR CORPORATE CONTROL

The notion that mergers could be conceived as transactions in a market for corporate control was forcefully articulated by Manne (1965), providing the theoretical foundation for most subsequent research on corporate takeovers. Manne argued that the stock market provides the only objective evaluation of management performance through the price it places on a firm's equity. If those in control of a public corporation do a

bad enough job, the firm's share price will dip so low as to create an incentive for more competent managers to take control and drive the firm's value back up. The worse a firm is managed, the lower its share price and, therefore, the greater the potential capital gains to outsiders who buy the firm's stock and run the firm more efficiently. Although takeovers can be costly, as long as the cost of the takeover is outweighed by the gains to be made by ousting inefficient managers, they will be attractive to potential acquirers.

Control changes can be accomplished in several ways, including proxy fights and negotiated mergers, but tender offers are the most effective way to take control of an unwilling target. A tender offer differs from other forms of merger in that, rather than negotiating a business combination with the target firm's managers, outsiders take their case directly to the shareholders and bypass management and the board. In a typical tender offer, outsiders offer target shareholders a premium over the target's current share value in order to buy an ownership position sufficient to exercise influence or control (up to 100 percent of the target's outstanding shares).[1] When tender offers are made without the approval of the target's board, they are considered hostile takeover attempts. Top managers typically leave the firm following successful hostile bids (Walkling and Long, 1984). Stockholders are the judges in these contests for control, choosing to support incumbent managers or to sell out to the takeover team. Because they allow outsiders to bypass incumbent managers, tender offers are the most effective way to bring about a change in control, and as the leading edge of the market for corporate control, they are argued to be perhaps the only serious force for limiting managerial opportunism or inefficiency. Moreover, according to some commentators, when a successful tender offer allows a more efficient management team to oust a less efficient one, virtually everyone except the displaced managers benefit: Target shareholders that sell out get their premium, the new managers gain from the increased value of the firm they now manage more effectively, and society benefits from a more efficient allocation of resources (Gilson, 1981).

Given these enthusiastic descriptions of the hypothetical social benefits to be derived from an active takeover trade, the scene was set for the developments that brought about the biggest wave of large corporate takeovers in history during the 1980s. Several factors came together to promote large takeovers: innovations in financing techniques, which lessened the effectiveness of size as a barrier to successful takeover; the elaboration of a takeover industry with sophisticated information technologies, as well as financial and legal advisors adept at deal making; and the free-market ideological climate provided by the Reagan administration, which worked against any regulation of takeovers and encouraged the gutting of antitrust enforcement (Brooks, 1987). Additionally, the Supreme Court invalidated most state laws limiting takeovers with the Edgar v. MITE decision in 1982.

Facilitating these developments was an underlying shift in the dominant conception of the corporation toward a

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See Gilson (1986) and Lipton and Steinberger (1988) for extended discussions of the mechanics of tender offers and regulations surrounding takeovers.

financial model. The public corporation is now widely viewed not as a complex social organization but as a bundle of assets, a source of cash flows (Fligstein, 1990; Meyer, 1991). Few events illustrate this commodification of the corporation as dramatically as a takeover: Takeovers highlight the fact that public corporations are not only commodities but that they are always for sale, at least in principle, regardless of the wishes of the individuals who work in them. This institutional transformation was driven in large part by the rise of financial economics and the finance conception of control (Fligstein, 1990), in which the dominant problems for those managing the corporation are viewed not in terms of the manufacture and sale of goods but as keeping the share price up. When share price is widely seen as the only objective sign of management performance, then managers have little choice but to adhere to this standard.

One might view the shift toward a financial model and the resulting commodification of the corporation as merely an institutional change or see stock market performance and capital structure as merely social constructions that have little to do with the actual functioning of organizations. Certainly, there is convincing evidence that capital markets are subject to social forces much like other arenas of social action (cf. Baker, 1984). But the financial model of the corporation brought with it a mechanism to ensure the dominance of this model: Takeovers may be seen as a device by which financial rationality is imposed on firms, the visible hand of the new institutional order. What is valued by financial markets becomes the appropriate value, enforced through its effect on a firm's takeover risk, and therefore how the market evaluates a firm becomes a material force (cf. Friedland and Robertson, 1990). The fact that in a brief period nearly one-third of the largest publicly traded corporations in the U.S. were subjected to a takeover attempt, due in large part to their financial characteristics, provides sufficient evidence that corporations had to adjust to the shift toward a financial model or face takeover as a consequence.

The rise of financial economics played a crucial role in bringing about the 1980s takeover wave by providing a quasi-scientific justification for an unrestricted takeover market (cf. Jensen and Ruback, 1983). Takeovers had played a prominent role in finance-based theories of the firm, in particular, agency theory, well before they played much role in reality. Perhaps the most distinctive feature of the financial economic approach to the firm is the notion that capital markets and takeovers can replace the efficiency-enforcing role played by product-market competition in the traditional theory of the firm. According to this approach, even managers of a monopoly have little discretion to deviate from seeking profit maximization because of the pressures of capital markets, in particular, the threat of takeover (e.g., Alchian and Kessel, 1962; Manne, 1965). This notion came at a time when there was "astonishing consensus" in the social sciences that oligopoly and dispersed ownership afforded managers of large corporations a buffer from profitability concerns (Zeitlin,

1974: 1074) and that large firms were effectively immune from takeover (Marris, 1964).[2] Yet by the 1980s, the idea that the market for corporate control was a useful tool for enforcing managerial efficiency appeared in U.S. Supreme Court decisions (Coffee, 1984: fn. 13) and the Economic Report of the President for 1985 (Brooks, 1987), signaling that the financial model had graduated from minority view to orthodoxy. Moreover, the public policy it inspired removed the immunity previously enjoyed by the largest firms. Much as the importance of product-market competition in nineteenth-century economic theory informed U.S. antitrust policy for most of this century, the importance of the market for corporate control in financial economics underlay public policy on takeovers during the 1980s.

While economic theorists were laying the intellectual groundwork for the construction of a takeover market, theory about organization-environment relations developed along rather different lines. The fact that takeovers play a central role in financial approaches to the firm, in particular, agency theory, while playing almost no role in organization theory reflects an underlying divergence in these approaches' stance regarding the ontological status of the corporation. Organization theory in general treats the firm as an entity analogous to an organism that seeks survival as the ultimate goal, while proximate goals are more subject to negotiation among coalitions within the firm (e.g., Pfeffer and Salancik, 1978). In this view, it makes sense to regard the firm (through its managers) as seeking greater growth and certainty through buffering strategies and to see survival as taking precedence over profitability. Firms construct more or less enduring ties to their environments, and these bridging strategies in turn can empower the firms' managers to ensure organizational survival and autonomy (Thompson, 1967).

In contrast, agency theorists explicitly reject this reification of the firm as a thing analogous to an organism with boundaries that separate organization and environment; rather, they argue that "*The firm is not an individual.* It is a legal fiction which serves as a focus for a complex process in which the conflicting objectives of individuals . . . are brought into equilibrium within a framework of contractual relations. In this sense the 'behavior' of the firm is like the behavior of a market" (Jensen and Meckling, 1976: 311; emphasis in original). This view of the firm as a nexus of contracts implies a radical methodological individualism: Firms do not exist independent of the contractual relations among shareholders, managers, employees, suppliers, and so on, and it is a cognitive error to believe otherwise. There is no question of organizational survival taking precedence over other goals; rather, optimization of the present value of the firm is the self-evident purpose of the corporation, and managers who may desire other goals that do not serve the interests of shareholders face a variety of mechanisms that limit their deviation, including takeover as a last resort (see Eisenhardt, 1989). Thus, what's good for the organization (e.g., retaining slack as a buffer from environmental instability) may not be good for the shareholders that own the firm, while what's good for the shareholders (e.g.,

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The writings of so-called managerialist economists with regard to takeovers seem quaint in light of the recent past. Marris (1964), for example, acknowledged early on that takeovers can limit how far managers are able to go in pursuing their self-interest, and his theory of takeover has proved surprisingly durable. Yet Marris qualified his theory by arguing that "even in a system in which firms of average size were subject to considerable take-over 'discipline,' the giants who produce the bulk of the output would remain relatively immune" and that "the institutions of modern capitalism are impossible to reconcile with the assumption that raiders are not scarce" (Marris, 1964: 39, 40).

shrinking the firm's payroll or taking on more debt) may not be good for the organization. Agency theorists reject the very notion that practices can be good for the organization; firms do not have goals that can be served by their managers any more than markets do.

Takeovers bring the conflict between organizational interests and shareholder interests to the fore and thus highlight the inherent theoretical conflict between agency theory and organization theory. Agency theory and organization theory share a connection with the managerialist theories of the firm that arose in the early 1960s (e.g., Marris, 1964; Williamson, 1964). The managerialist economists embraced the notion that a managerial revolution had separated ownership from control in the large corporation and that this separation allowed substantial managerial discretion. Based on this premise, they constructed alternative models of the firm in which profit maximization was replaced with other objectives that served managerial interests, such as organizational growth, managerial power, security, and so on. Takeover was the primary constraint in the managerialist model, albeit a rather remote one for the largest firms (Marris, 1964). Organization theorists continued the trajectory of the managerialist economists by arguing that managers were given power within the organization in order to pursue the interests of the organization per se as an open system (e.g., Pfeffer and Salancik, 1978). The managerialist assumption was lost from view as capital markets and the threat of takeover received little or no attention as constraints on the pursuit of organizational goals.

By contrast, agency theorists rejected not only the managerialist premise but the very notion of organizational interests and organizational goals that differed from those of the contracting parties. Like the managerialist economists, agency theorists argued that (the threat of) takeover provided a permanent mechanism to monitor management performance and discourage the pursuit of managerial goals at the expense of shareholder interests, but agency theorists placed much greater faith in the effectiveness of this mechanism, arguing in effect that "capitalism selects optimal organizational structures" (Marris and Mueller, 1980: 42). Thus, while organization theorists took managerialist approaches to the firm one step further by relaxing capital market constraints to the point of irrelevance and equating organizational interests with managerial interests, agency theorists moved capital markets and shareholder interests to center stage. In the aftermath of a decade of takeovers, it is apparent that the notion of managerialism, upon which organization theory is premised but which agency theorists reject, can no longer be taken for granted. Moreover, although the takeover wave has run its course and state legislatures in over 40 states have considerably increased the barriers to future hostile takeovers, activist institutional investors have gained considerable power through large and relatively concentrated shareholdings, and they are exercising this power in accord with the normative logic of agency theory (Useem, 1992). The scope of control through ownership shows every sign of increasing into the future,

promising an era different from those of both managerialism and ownerism.

If organization theory is to remain relevant to issues around corporate power and the control of large corporations rather than abandoning this area to financial economics, it must adjust to the shift toward a financial model of the corporation. An essential first step in understanding this environmental change and its effects is through an empirical assessment of the factors that are important in explaining why firms are taken over. Of necessity this will entail importing notions from financial economics; these ideas formed the ideological basis for the establishment of a takeover market in the first place and themselves can therefore be seen as part of the institutional environment.

Limits of Previous Research on Takeovers

Recent studies have uncovered several factors associated with being taken over. Palepu (1986) found that size, growth, and debt-to-equity ratio were negatively related to being taken over during the years 1971–1979. Morck, Shleifer, and Vishny (1988, 1989) similarly found that among the 1980 *Fortune* 500 high market value, growth, better stock-market performance, greater management stock ownership, and a high Tobin's *q* (market value/replacement cost of physical assets) were negatively related to being taken over as a result of a hostile bid by the end of 1985.

These studies provide a foundation for modeling the features that make firms susceptible to takeover attempts, but they suffer from weaknesses that make inferences from them problematic. First, these studies only considered completed takeovers, and therefore excluded firms that received takeover bids but remained independent by resisting successfully. But targets of takeover attempts often manage to fend off their attackers through the use of various defensive tactics (Pound, 1987): Among the 1980 *Fortune* 500, 18 of the 77 firms whose managers chose to resist a tender offer did so successfully. Thus, looking only at completed takeovers gives a distorted picture of who becomes a target, as some of the features that allow firms to resist being taken over may be confounded with those that subject them to takeovers in the first place (Kuehn, 1969). This study avoids this by examining all formal takeover attempts, whether they were ultimately successful or not.

Second, these and other studies have all used static statistical techniques to model what is essentially a dynamic process. Morck, Shleifer, and Vishny (1989) modeled firms' likelihood of being taken over between 1981 and 1985 based on their characteristics at the beginning of that period, but the calendar year with the largest number of takeover bids for firms in their sample period was 1985, with 1984 a distant second. Many of these firms went through significant financial restructurings after 1980; some enhanced their performance over time, while others declined. Needless to say, firms can change a great deal during an economically turbulent half-decade in ways that substantially alter their relative chances of being taken over, but this is missed by static measurement schemes.

Finally, selecting a time frame arbitrarily rather than on the basis of empirical or theoretical justification gives a misleading picture of the behavior of the market for corporate control. For example, Morck, Shleifer, and Vishny (1989) chose 1985 as the censoring point for takeover in their study. But most of the tender offers for firms in their sample occurred after 1985; surviving until the end of the researchers' sample period was by no means a guarantee of safe harbor for these large corporations.

Recent developments in macro-organizational research provide a framework for overcoming these problems. The dominant trend has been to use dynamic techniques to examine changes in large populations over time (Davis and Powell, 1992). This approach provides an appropriate method for examining the takeover wave of the 1980s and represents an advance over previous research in this area. We used event-history analysis techniques on time-series data to examine the organizational characteristics associated with receiving any tender offer, successful or not, as well as the factors associated with receiving a hostile (resisted) tender offer, using a well-defined population over a time period that spans the length of the most recent merger wave (1980–1990). This approach limits both sampling bias and bias due to a truncated sample period, problems that have plagued takeover research appearing in economics journals.

Hypotheses

Agency theory and organization theory provide somewhat different explanations for corporate behavior. Given the centrality of the market for corporate control in agency theory, it is not surprising that agency theorists have theorized rather explicitly the factors that make firms susceptible to takeover. Notions of organizational inertia and social embeddedness in organization theory, however, can also be used to construct accounts for why firms would become subject to takeover. Although these two approaches to the firm are quite distinctive in terms of their ontology, with agency theory assuming a methodological individualist stance that privileges the interests of shareholders and organization theory assuming a wholist or embedded stance that privileges organizational interests, they have few points of direct contention. Rather, they generally focus on different aspects of the firm, and to the extent that they consider the same features, their accounts tend to be complementary rather than contradictory. Thus, agency theory pays particular attention to financial performance; organization theory focuses more on social embeddedness; and both see organizational slack and inertia as important to varying degrees.

Efficiency and performance. The dominant rationale for takeover in agency theory is poor management performance. In the financial economic approach to the firm, the firm's share price provides the only objective indicator of management performance (Manne, 1965). More efficient management is recognized by the market and reflected in share prices. One simple measure of how the market evaluates the firm is the market-to-book ratio, which is

simply the ratio of the stock market value of the firm's outstanding common shares to the accounting (book) value of this equity. To the extent that the stock market evaluates incumbent management highly, the market-to-book ratio should be high and the threat of takeover correspondingly low: Such firms offer little incentive to outsiders seeking a quick capital gain from ousting inefficient incumbents. This claim is consistent with early research on the market for corporate control (Marris, 1964; Kuehn, 1969; Hindley, 1970). Thus,

Hypothesis 1: Higher market-to-book ratio will decrease the risk of takeover.

While market to book provides a long-term measure of the capital markets' evaluation of the firm, return on equity (ROE) provides a more immediate measure of corporate performance. To the extent that takeovers are meant to discipline underperforming firms, those that are earning higher returns should be subject to less risk of takeover:

Hypothesis 2: Higher return on equity will decrease the risk of takeover.

Cash flow and organizational slack. Organization theory and agency theory provide somewhat contradictory evaluations of organizational slack. From the perspective of the organization, slack provides a useful cushion that can be drawn on in lean times (Cyert and March, 1963) and a buffer from environmental uncertainty (Thompson, 1967). By this account, high cash flow and low debt are signs of robust organizational health. In contrast, agency theorists argue that large cash flows increase managerial discretion, allowing managers to pad the payroll, buy unnecessary corporate jets, fund low-return pet projects, and so on at the expense of shareholder value (Jensen, 1986). Thus, high cash flow can make a firm an attractive takeover candidate for two reasons: First, because it may signal that a firm is susceptible to managerial discretion, as argued by agency theorists, and second, because cash flow can be tapped after the takeover is completed to pay off any debt financing used to fund the takeover. Thus,

Hypothesis 3: Greater cash flow will increase the risk of takeover.

The most reliable way to limit the managerial discretion associated with cash flow is for the firm to take on substantial debt. Managers may promise to pay out cash flows by raising the dividend, but the most credible way to bond this promise is by taking on substantial debt (Jensen, 1986). Unlike dividend payments, which can be altered, missing a debt payment can bring severe penalties. Taking on debt can thus reduce managerial discretion. In addition, firms that are laden with debt are less appealing takeover targets because they provide less post-takeover free cash flow to service debt taken on to fund the takeover:

Hypothesis 4: Greater debt will decrease the risk of takeover.

Organizational inertia. Organizational inertia can also affect a firm's risk of takeover. Organizations may respond to threats in their environment, such as the construction of a takeover market, in different ways. To the extent that an organization is agile in the face of uncertainty, it should be better placed to transform itself internally to avoid the threat

of takeover. Yet ecologists have pointed out that organizations become increasingly rigid and incapable of adaptation with age (Hannan and Freeman, 1984). Routines become set, political coalitions fall into place, and the power structure crystalizes around the current organizational arrangements. These processes conspire to prevent significant internally generated change, even if those at the top recognize the need for change, by stalling or preventing implementation. Under conditions of significant environmental change such as those in the 1980s, rigid organizations will come to be increasingly out of sync with their environment. Thus,

Hypothesis 5: Older organizations will face a greater risk of takeover.

In addition to generalized inertia, rigidity in personnel practices may provide a particular attraction for raiders. Substantial layoffs have accompanied several highly publicized takeover battles, and some have argued that such turmoil is the predictable outcome of the strategies of takeover entrepreneurs, who can engage in ruthless downsizing and concession bargaining with labor that incumbent managers are unwilling or unable to do (Shleifer and Summers, 1988). Those who built the organization may be loath to tear it down again, even if such a strategy, because of changed industry conditions such as increased foreign competition, is likely to be profitable. Thus, the market for corporate control may intersect with labor markets through the actions of raiders who buy firms in order to abrogate implicit or explicit employment agreements. As with slack, what is good for shareholders may conflict with what is good for the organization.

Human capital economists have argued that some firms encourage loyalty and performance by holding out the prospect of future promotions and benefits through internal labor markets. Such firms follow a strategy of underpaying younger workers but implicitly promising job security and the opportunity for regular advancement and higher pay down the road. These implicit contracts benefit firms by encouraging workers to forego shirking and to make investments in firm-specific skills, and they create substantial quitting costs for workers, thus facilitating a long-term relationship between employer and employee (see Goldberg, 1980, for a critical discussion).

The use of deferred compensation is most feasible for firms experiencing sustained growth. Yet not all firms can expand indefinitely, and at the point at which firms lack opportunities for growth, the implications of the use of implicit contracts can affect a firm's risk of takeover. Other things equal, a more tenured workforce is more highly paid, and without growth to bring in new recruits at a lower wage, firms with more tenured workforces will be saddled with high and increasing average wages. Moreover, due to inertia or honor, incumbent management may be unwilling or unable to downsize even when it may benefit shareholders. Raiders, however, are not bound by incumbent management's implicit promises and thus can profit by taking over high-tenure/low-growth firms and engaging in post-merger

layoffs and/or concession bargaining (Shleifer and Summers, 1988). Thus,

Hypothesis 6: A highly tenured workforce coupled with low growth will increase the risk of takeover.

Corporate control and social embeddedness. Following Berle and Means (1932), social scientists have been in broad agreement that managers have more discretion to pursue their own interests at the expense of shareholder interests to the extent that shareholdings are dispersed. Berle and Means argued that the lack of a controlling block of ownership in the corporation, coupled with a trend toward management by professional managers rather than entrepreneurs, led to a separation of ownership and control in most large corporations: Individual shareholders were too dispersed to have significant influence on management, a situation of ownership without control, while top managers had effective control with little ownership. Such a situation supported managerialism, in which managers pursued their own interests in power, prestige, and security at the expense of profit maximization.

Subsequent organizational researchers have distinguished between different types of controlling interests and their effect on corporate behavior (e.g., Palmer et al., 1987). Family-controlled firms are those in which a single individual or family maintains ownership of a significant block of the firm's stock. Because family members are either directly involved with managing the firm or have the power to monitor management closely, family-controlled firms are argued to cleave to the dictates of profit maximization and thus to avoid the temptations of building up excessive organizational slack. They are therefore unlikely to be run in ways that invite takeover. Moreover, family-controlled firms should be more difficult to take over without the consent of the family because, to the extent that the family's ownership interests are substantial, the family has the power to veto unwanted bids. Thus,

Hypothesis 7: Family control will decrease the risk of takeover.

While this portrait of the family-controlled corporation resembles the type of firm that predated the managerial revolution, bank control theorists argue that financial institutions filled the breach in control caused by the managerial revolution. According to this view, banks play a direct role in dominating decision making in many firms by controlling substantial blocks of stock or by placing representatives on the board of directors, acting to compel managers of firms under their control to pursue profit maximization and preventing them from building up the sort of organizational slack that invites takeover. "A manager of a corporation under financial control who decides to balance the interests of stockholders, employees, consumers, and the general public . . . would be likely to soon be looking for a job" (Kotz, 1978: 144). Therefore,

Hypothesis 8: Bank control will decrease the risk of takeover.

Financial hegemony theorists have argued against this characterization of bank control in favor of a view of banks as having a less direct influence on corporate decision making (Mintz and Schwartz, 1985). Moreover, while a bank

will often share a member of its board of directors with another corporation, thus creating an interlock with the other firm, the shared director is more likely to be an executive of the other firm than of the bank. Interlocks with banks and other firms are rarely used to effect power relations; rather, they provide firms with access to information and, potentially, resources. Thus, banks use interlocks to gather economywide information to guide their investment decisions, while other corporations use them for the more mundane function of enhancing their business scan (Useem, 1984; Mintz and Schwartz, 1985). More broadly, the widespread existence of interlocking boards of directors has been taken by sociologists as evidence of the embeddedness of corporate decision making in social networks that extend beyond the firm itself. Direct evidence of the influence of the interlock network on issues of corporate control is provided by Davis's (1991) finding that the spread of the so-called poison pill takeover defense, which boards adopt to prevent unwanted takeovers, was directly facilitated by such interlock ties. In addition to providing access to information, interlock ties may prove particularly useful in times of crisis such as a takeover attempt. Sharing directors with a large number of other firms indicates that a firm has a central position in the intercorporate power structure. Firms with well-connected boards may be able to call on allies in other firms to protect themselves from unwanted takeover (Granovetter, 1985: 493). The latent capacity of managers of heavily interlocked firms to draw on their connections should act to deter takeover bids; thus,

Hypothesis 9: A more heavily interlocked board will decrease the risk of takeover.

Other factors. Size, institutional ownership, and functional background of the chief executive officer (CEO) are also potentially important in explaining firms' susceptibility to takeover. The most relevant measure of size is the market value of the firm's equity (i.e., the number of shares outstanding multiplied by the price per share on the stock market). Market value should be roughly proportional to the amount an acquirer would have to pay and thus indicates the degree of impediment to financing the takeover.

The extent to which the firm is owned by institutional investors can also affect the ease with which the firm can be taken over, although it is an open question whether institutional ownership helps or harms the firm's prospects for avoiding takeover. On the one hand, institutions have been argued to be short-term investors rather than owners, willing to turn a quick profit by selling out to raiders. Because institutions generally have diversified investment portfolios, they have little reason to be loyal to any particular investment and, given the large premium that a successful tender offer generally entails, substantial reason to welcome takeovers of firms in which they hold an ownership stake. On the other hand, institutions such as banks, insurance companies, and investment companies are often susceptible to conflicts of interest and pressures by corporate managers and their allies, who can steer business (such as the management of corporate pension monies) toward compliant

institutions and away from others (see Brickley, Lease, and Smith, 1988). Such pressures may ensure that institutional ownership is a bulwark for management control rather than a sign that a firm is susceptible to takeover. Thus, Pound (1988) found that dissidents were more likely to lose to incumbent management in proxy fights between 1981 and 1985 to the extent that the firm was owned by institutions. We therefore controlled for ownership by institutional investors.

The functional background of the CEO provides evidence on the conception of control guiding a firm. CEOs with a manufacturing background, for example, will define and pursue different organizational goals using different strategies than CEOs with a marketing or finance background. Fligstein (1990) argued that CEOs from different functional backgrounds come to power by proposing viable solutions to the organization's problems and that the finance conception of control (and CEOs from a finance background) came to dominance in the largest corporations by treating the firm as a portfolio of assets and promoting the strategy of growth through diversification. Subsequently, the conglomerate merger wave of the 1960s produced a number of large, diversified firms run by finance CEOs.

Having a finance CEO could affect firms' risk of takeover in two ways. On the one hand, finance CEOs are argued to be particularly attuned to share price, treating the product lines that the firm produces as a portfolio of profit centers that can be bought and sold readily if it will increase shareholder equity (Fligstein, 1990). Moreover, finance CEOs are likely to be particularly savvy operators when it comes to capital markets and thus may be able to prevent takeovers through sophisticated financial tactics. On the other hand, finance CEOs have historically pursued strategies that produced growth at the apparent expense of shareholder interests, such as diversification into unrelated lines of business (Fligstein, 1990). In light of the return to corporate specialization and the deinstitutionalization of the conglomerate form (Bhagat, Shleifer, and Vishny, 1990; Davis, Diekmann, and Tinsley, 1992), finance CEOs may be seen as proponents of an outmoded strategy and their firms as attractive takeover targets. Thus, we investigated the effect of having a finance CEO.

We tested the nine hypotheses by analyzing the factors that precipitated all formal takeover bids for a large panel of firms (the 1980 *Fortune* 500) over an eleven-year period from 1980 to 1990, which encompassed the entire takeover wave of the 1980s.

METHOD

Sample. The initial sample consisted of all members of the 1980 *Fortune* 500 largest industrial firms. Because of the dominance of the finance conception of control, defining organizational fields based on industry or sector no longer fits the reality facing the largest firms, who form their own self-recognized peer group linked by more or less enduring ties (cf. Mintz and Schwartz, 1985; Fligstein, 1990). Thus, any assessment of the impact of the takeover on corporate

America is best focused on the population of the largest firms (Coffee, 1988).

Firms were excluded from the sample if they were not subject to takeover. Thus, foreign subsidiaries such as Lever Brothers, joint ventures such as Dow Corning, and cooperatives such as Land o' Lakes were excluded because they were incapable of being taken over. The effective initial sample size was 467.

The sample period covered the years 1980 to 1990, inclusive. Any choice of a sample period will introduce the issue of right-censoring, meaning that some events will occur after the sample period is over. Such problems are routinely dealt with in event-history methods, however, and pose little difficulty. A more substantive problem concerns the issue of left-censoring: By starting the clock in 1980, events prior to that will be missed, and there is some chance that sampling bias will be introduced, as only firms that survived until 1980 will be included in the sample.

This sampling frame seems appropriate, because the ascent of the Reagan administration introduced a discontinuous change in the causal process underlying takeovers. Although takeovers of large firms occurred prior to 1980, it was at a vastly lower rate than during the 1980s, for several reasons alluded to above, in particular, the relaxation of antitrust enforcement that encouraged intraindustry mergers and the 1982 Supreme Court decision that invalidated most state laws regulating takeovers. The takeover wave was almost precisely coterminous with the Reagan administration (see Figure 1 below), and the number of tender offers in 1990 (five) matched the number in 1980, while only one firm in this population received a tender offer in 1991; this contrasts with the 26 tender offers undertaken in 1985, the mid-point of the Reagan years.

Data. The data were compiled from a number of public sources. Under the Williams Act, companies and individuals making tender offers for stock must file a Schedule 14D-1 with the Securities and Exchange Commission (SEC) upon the commencement of the offer. The commencement dates and targets of these offers are periodically published in the *SEC News Digest.* By examining each issue of this bulletin, we were able to produce a list of all tender offers made during the years 1980–1985. More recently, data on the dates and targets of 14D-1 filings have become available on Compact Disclosure, a CD-ROM dataset covering various SEC filings. We used this source to identify tender offers made between 1986 and 1990. We cross-checked this master list of tender offers against a list of the 1980 *Fortune* 500 firms (updated to include any name changes) to obtain a compilation of all of these firms that were the subject of a tender offer during our sample period, January 1980–December 1990.

Based on reports in the *Wall Street Journal Index,* we compiled a complete history for each offer. We found ten instances in which the tender offer was initiated by management (i.e., management buyouts, or MBOs). These were treated as censored cases rather than takeover attempts. Bids were coded as hostile if the initial tender

offer was rejected by the board of directors. While all cases in which the bid was rejected by the board of directors can be considered hostile, it is more difficult to render judgment on bids that were not rejected. Some bids that are hostile in intent are nevertheless not resisted by management for various reasons. One practice used by raiders, known as a super strong bear hug offer, discourages management resistance in the following way: The raider will propose two prices to management before going public with the bid, a higher price if management agrees not to resist and a lower price if management does not agree, with the difference in the prices setting a measure of damages in possible shareholder suits against the board (see Lipton and Steinberger, 1988: section 1.06[1]). Obviously, such behind-the-scenes maneuvers do not turn up in public sources, and we would fail to classify such an instance as hostile. Conversely, some bids may be welcomed by management although not initiated by management. Thus, we separately modeled both all resisted bids and all bids not initiated by management.

Each firm was also given a code to identify the ultimate outcome of the bid (initial bidder succeeds, white knight is solicited, management buyout, etc.). Offers were coded as unsuccessful if the firm ultimately remained independent—it was not acquired either by the initial bidder, a subsequent bidder or white knight, or by the management group itself. Finally, to verify that we had not missed any tender offers through this technique, we traced the histories of all firms in this population that were dropped from the COMPUSTAT universe during our time frame through the *Wall Street Journal Index*. We found no instances in which our method failed to detect a tender offer.

Our dependent measure was the number of days from 1 January 1980 until the firm became subject to a tender offer from a nonmanagement group, if ever. Firms that were not subject to a tender offer were considered right-censored. Firms that were de-listed from COMPUSTAT for reasons other than a successful tender offer (e.g., bankruptcy, statutory or other negotiated merger) were also considered right-censored cases. For firms that received more than one tender offer during this period, we used the date of the first offer.

We obtained annual data on market-to-book ratio, return on equity, cash flow (i.e., income before extraordinary items/market value), debt or capital structure (long-term debt/market value), number of employees, and total market value from COMPUSTAT. We computed a dummy variable representing free cash flow that was coded as unity if the firm was above the median on the cash flow measure and below the median on the capital structure measure, and zero otherwise. Growth in employment was calculated as a percentage change for each year. We calculated the variables described in the previous section for each year from 1979 through 1989 for firms that did not receive tender offers and did not leave our sample for other reasons (such as bankruptcy or statutory merger). For target firms, these were calculated until the last point prior to the tender offer at which data were available. These measures are by

definition annual; thus, it is appropriate to characterize them as constant between annual reporting times rather than to consider them intermittently measured. Because several of our measures are ratios, there are occasions in which small denominators led to extreme outliers. We excluded 11 firm-years because of outlier values. This did not substantively affect the reported results.

Data on dominant ownership blocks in 1980 were taken from the *Corporate Data Exchange* (CDE) *Stock Ownership Directory* (Corporate Data Exchange, 1981). Based on Kotz (1978) and Herman (1981), we used three dummy variables to code firms as family-controlled if the largest ownership block (other than the company's own pension plan, ESOP, or other stock ownership plan) was greater than 5 percent and was controlled by a family or individual; bank-controlled if the largest block was greater than 5 percent and was controlled by a commercial bank; and miscellaneous if an ownership block of greater than 5 percent was held by another company or investment fund. Management control, with no owner possessing more than 5 percent of the firm's equity, was the omitted category.[3] Data on ownership by institutional investors was taken from the *Spectrum 3 Stock Ownership Guide* for 1980. This measure was coded as the percentage of the firm's shares outstanding held by all 13F institutional filers (all entities owning $100 million or more in equity assets, primarily pension funds, investment companies, banks, and insurance companies).

We calculated age using data on the year of founding (usually reported as the year of original incorporation) from *Standard & Poor's Encyclopedia* and *Moody's Industrial Manual* for 1980. Because the additional effect of age on organizational inertia should decrease with age, we logged our measure of age; thus, the measure assumes that organizations become inert at a decreasing rate as they age.

Ideally, our measure of workforce seniority would be compiled at the firm level. Unfortunately, such firm-level measures simply don't exist, at least on a scale sufficient for the purposes of this analysis. Instead, we used the January 1981 Current Population Survey (CPS) to calculate average tenure (the average number of years employees spent with their current employer) by industry. The CPS is collected on a very large representative sample of households by the Department of Labor to determine various characteristics of the workforce (employment status, wages, hours worked, etc.). Industries are defined at a level of specificity approximately equivalent to the 3-digit Standard Industry Classification (SIC) level; thus, our analyses assume that the average tenure level of a firm is close to that of its primary 3-digit industry. We included only full-time wage earners in the civilian labor force in our calculations, leaving us with 61,470 individuals. We coded our high-tenure/low-growth dummy variable as unity if the firm operated in an industry that was above the median in tenure and the firm was at or below the median (zero) in employment growth, and zero otherwise.

Data on boards of directors for 1982 were coded from *Standard & Poor's Directory of Corporations, Directors, and*

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Analogous results were obtained when the criterion level was set at 10 percent ownership rather than 5 percent.

Executives for 1983 to determine firms' patterns of interlocks. The interlock sample included the union of the following sets: firms in the 1980 or 1986 *Fortune* 500 largest industrials; firms in the *Fortune* 50 largest commercial banks, 25 largest diversified financials, 25 largest retailers, and 25 largest transportation companies for 1986 for which board data were available. Our interlock variable for ties sent by banks was coded as unity if the firm's board had at least one member who was an executive of one of the sampled commercial banks, zero otherwise. Total interlocks was measured as the number of other firms in the interlock sample with which the firm shared at least one director. The same procedures with the same sample were used to create interlock data for 1986 using board of director data taken from Compact Disclosure. Because these data were not available for years prior to 1982, the models containing these variables were only estimated for 1983–1990, inclusive, with the 1982 interlock data used for firm-years 1983–1985 and the 1986 data used for firm-years 1986–1990.

Data on the functional backgrounds of CEOs came from *Forbes'* annual surveys of executive compensation for 1980 and 1981. We coded a dummy variable as unity if the firm's CEO had a finance background, zero otherwise. The *Forbes* sample included the CEOs of U.S. firms that were among the 500 largest, ranked by sales, profits, assets, and market value. Because this sample was not limited to industrials, not all *Fortune* 500 firms are in the *Forbes* sample. We therefore ran separate models, one set excluding the finance-CEO variable and one set with a truncated sample including the finance-CEO variable.

Statistical analysis. The primary statistical technique we used was event-history analysis with time-changing explanatory variables (Allison, 1984; Tuma and Hannan, 1984). Event-history models, which have gained wide acceptance in organizational studies, particularly in population ecology research (e.g., Hannan and Freeman, 1989), are analogous to multiple regression in which the dependent variable is the (unobserved) hazard rate, the rate at which events happen. Intuitively, the notion of a hazard rate is that at any given moment each member of the risk set (those for whom the event in question is a possibility) faces some underlying risk that the event will occur and that this risk is related to time (as a proxy for factors that affect all members of the risk set in the same way) and to characteristics of the individuals in the risk set. Event-history models of tender offers assume that a firm's risk of becoming subject to a tender offer depends on its individual characteristics, such as its market-to-book ratio, as well as factors that affect all firms in the risk set in similar ways, such as prevailing interest rates or changes in antitrust enforcement.

A number of techniques have been developed to parameterize both components of the hazard rate (see Tuma and Hannan, 1984). The most common approaches to parameterizing time dependence, such as the Gompertz or Makeham models, assume that rates change monotonically with time. More recently, researchers have used the

log-normal distribution to model rates that initially increase but subsequently decline (Levinthal and Fichman, 1988). As Figure 1 shows, however, the pattern of time dependence in this sample appears to fit neither a monotonic nor a single-peaked distribution. Misspecifying time dependence poses particular problems for fully parametric event-history techniques. Fortunately, our primary interest was in testing hypotheses about the characteristics of individual firms that made them more or less susceptible to takeover bids rather than in any particular patterns of time dependence in the takeover rate. Because of this, we estimated a proportional hazards model of the hazard rate of a tender offer (Cox, 1972) of the form

$$h(t) = q(t)\exp[\alpha'\mathbf{x}(t)],$$

where $h(t)$ is the (unobserved) hazard rate for a tender offer, $q(t)$ is a baseline hazard function, $\mathbf{x}(t)$ is a vector of the independent variables that can vary over time, and α' is a vector of coefficients corresponding to the independent variables. The baseline hazard function, which is not estimated, is common across the population and can take any form as a function of time, thus allowing estimation of the effects of the variables of interest without specifying patterns of time dependence. This feature of the model is particularly useful for cases like this, in which patterns of time dependence are likely to exist but the data are inadequate to model them properly (see Tuma and Hannan, 1984: chap. 8). While some subtlety is lost by making this tradeoff, there is no suitable alternative in cases in which one's substantive interest is in modeling the factors affecting the hazard of takeover facing particular firms rather than more global features affecting all firms.

In our models, most of the independent variables vary over time, and thus each firm's history over the decade is divided

Figure 1. Empirical hazard rate of receiving a tender offer for *Fortune* 500 firms, 1980–1991.

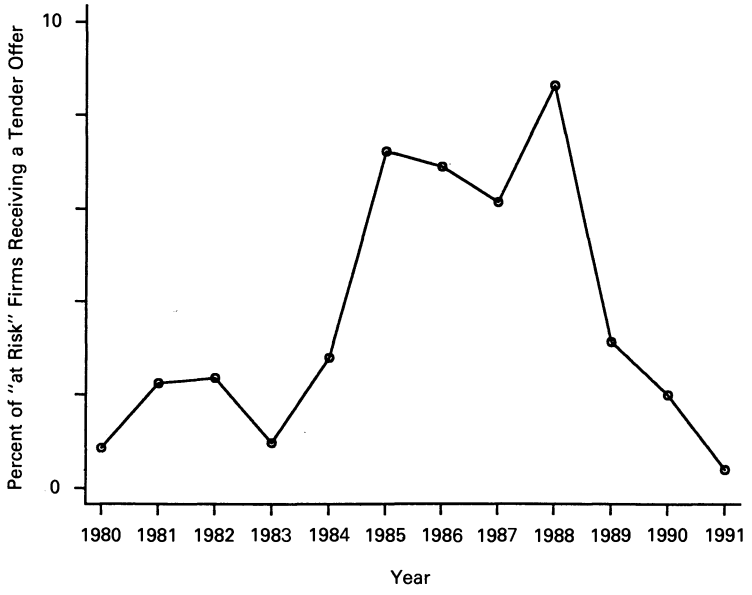

Table 1

Descriptive Statistics and Correlation Matrix for 1983

Variable	Mean	S.D.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Market to book	1.23	0.85																
2. Return on equity	8.24	31.88	.09															
3. Cash flow	0.11	0.66	.08	−.17														
4. Debt	0.64	1.29	−.35	.21	−.78													
5. Free cash flow	0.13	0.34	−.09	.06	.09	−.14												
6. Age (log)	3.95	0.53	−.08	−.04	−.02	.01	.06											
7. Workforce tenure	8.77	1.68	−.23	−.05	−.12	.15	.00	.15										
8. Growth rate	−7.10	15.68	.35	.07	.23	−.32	.05	−.07	−.05									
9. High tenure/ low growth	0.43	0.50	−.30	−.06	−.10	.15	−.01	.16	.61	−.32								
10. Family control	0.33	0.47	.09	.00	.05	−.03	−.01	−.06	−.11	.11	−.12							
11. Bank control	0.06	0.24	−.01	.02	.03	−.04	−.02	.05	−.01	.03	−.11	−.18						
12. Misc. control	0.23	0.42	−.03	−.02	−.18	.14	−.10	−.03	−.01	−.14	.09	−.39	−.14					
13. Market value (B)	2.11	4.32	.22	.08	.05	−.12	.05	.14	.02	.15	−.03	−.08	−.03	−.11				
14. Institutional ownership	38.51	15.94	.38	.12	.10	−.27	−.06	−.02	−.08	.17	−.15	.04	.10	−.10	.15			
15. Finance CEO	0.17	0.37	−.11	.12	−.04	.09	−.05	.06	−.06	−.10	.00	−.04	−.01	.05	−.02	−.04		
16. Banker on board	0.13	0.33	−.02	.03	.04	−.05	.05	.02	−.01	.04	.01	−.12	−.06	.04	.08	−.03	−.07	
17. Network centrality	11.14	7.23	.02	.10	−.02	−.03	.00	.22	.05	.02	.06	−.24	−.02	−.15	.42	.14	.02	.12

into up to eleven annual spells from 1980 to 1990. For a firm that neither received a tender offer nor was deleted from our population for other reasons, the firm's history was considered right-censored and we had eleven years of data. Descriptive statistics and a correlation matrix for the independent variables for 1983 are presented in Table 1. The models assume that a firm's risk of a tender offer during each spell depended on its characteristics at the beginning of that spell; thus, we lagged each firm's data one year. For example, a firm's risk of receiving a tender offer in 1986 depended on its market-to-book ratio, cash flow, and so on, as measured in 1985. We considered the first tender offer in our sample period to be a fatal event, and firms were deleted from the sample after the first tender offer even if it was unsuccessful. Our reasoning was that the first tender offer most accurately represented what we were interested in, i.e., why firms became targets, and that firms that have already received a tender offer should subsequently be removed from the original risk set. Firms that left the population for reasons other than tender offers were treated as right-censored at the end of the last year for which data were available from COMPUSTAT.

RESULTS

Because of data limitations, we estimated three sets of models, one covering the entire sample period (1980–1990) without interlock measures or the finance-CEO indicator, one covering the same period with a truncated sample and including the finance-CEO indicator, and one covering only 1983–1990. The results of the first set of event-history analyses are shown in Table 2. The first and second columns report the results when the event was receiving any tender offer not initiated by management. The third and fourth columns include only nonmanagement offers that were successful, when the firm was ultimately acquired or became privately owned; cases that did not end in the firm being acquired or becoming private were treated as

Table 2

Factors Affecting the Risk of Receiving a Takeover Bid among *Fortune* 500 Firms January 1980–December 1990 (Time-changing Covariates)*

Variable	All bids		All successful bids		Hostile bids		Successful hostile	
Market to book	−0.224•	−0.227•	−0.197•	−0.195•	−0.272•	−0.257•	−0.310•	−0.305•
	(−2.26)	(−2.22)	(−1.79)	(−1.68)	(−1.97)	(−1.79)	(−1.99)	(−1.86)
Return on equity	0.004•	0.004•	0.002	0.001	0.002	0.002	0.001	0.001
	(2.72)	(2.47)	(0.60)	(0.19)	(0.58)	(0.54)	(0.33)	(0.27)
Cash flow	0.292	0.253	0.208	0.107	0.285	0.253	0.225	0.189
	(1.21)	(1.03)	(0.71)	(0.34)	(0.76)	(0.67)	(0.54)	(0.49)
Debt	−0.828•	−0.915•	−0.850•	−0.910•	−0.907•	−0.960•	−0.976•	−0.896•
	(−3.07)	(−2.87)	(−2.76)	(−2.42)	(−2.42)	(−2.23)	(−2.24)	(−1.83)
Free cash flow	−0.095	−0.161	−0.011	0.012	−0.376	−0.455	−0.352	−0.267
	(−0.34)	(−0.51)	(−0.04)	(0.04)	(−0.95)	(−1.01)	(−0.78)	(−0.53)
Age (log)	0.258	0.252	0.225	0.222	0.665•	0.658•	0.745•	0.767•
	(1.41)	(1.12)	(1.15)	(0.94)	(2.45)	(2.07)	(2.35)	(2.00)
Workforce tenure	−0.116•	−0.083	−0.089	−0.060	−0.088	−0.019	−0.034	0.037
	(−1.82)	(−1.20)	(−1.28)	(−0.77)	(−1.06)	(−0.21)	(−0.36)	(0.34)
Growth rate	−0.012•	−0.009	−0.011	−0.006	−0.008	−0.008	−0.006	−0.004
	(−1.83)	(−1.17)	(−1.59)	(−0.76)	(−0.89)	(−0.78)	(−0.61)	(−0.31)
High tenure/ low growth	0.282	0.212	0.213	0.148	0.343	0.338	0.240	0.300
	(1.16)	(0.77)	(0.81)	(0.49)	(1.09)	(0.98)	(0.66)	(0.73)
Family control	−0.361	−0.267	−0.262	−0.108	−0.767•	−0.797•	−0.718•	−0.658
	(−1.45)	(−0.98)	(−0.97)	(−0.37)	(−2.36)	(−2.14)	(−1.95)	(−1.56)
Bank control	0.267	0.364	0.375	0.473	0.259	0.308	0.422	0.477
	(0.70)	(0.90)	(0.92)	(1.08)	(0.59)	(0.65)	(0.87)	(0.90)
Misc. control	0.398	0.219	0.420	0.180	−0.037	−0.191	−0.152	−0.443
	(1.69)	(0.83)	(1.61)	(0.59)	(−0.12)	(−0.56)	(−0.42)	(−1.01)
Market value (B)	−0.055	−0.064	−0.060	−0.066	−0.067	−0.088	−0.083	−0.098
	(−1.48)	(−1.62)	(−1.41)	(−1.47)	(−1.37)	(−1.61)	(−1.29)	(−1.41)
Institutional ownership	−0.012•	−0.016•	−0.016•	−0.021•	−0.013	−0.014	−0.021•	−0.021
	(−2.04)	(−2.31)	(−2.43)	(−2.72)	(−1.67)	(−1.46)	(−2.19)	(−1.91)
Finance CEO		0.592•		0.343		0.699•		0.216
		(2.40)		(1.16)		(2.25)		(0.51)
Model chi^2	52.1•	44.0•	40.0•	30.0•	35.3•	34.3•	31.1•	26.0•

• $p < .05$.

* t-statistics are in parentheses. Reported significance levels are one-tailed for hypothesis tests, two-tailed for the control variables (market value, institutional ownership, and finance CEO).

censored. The fifth and sixth columns report results of cases in which only resisted (hostile) tender offers were considered, while nonhostile tender offers were treated as censoring events. Finally, the seventh and eighth columns include only successful hostile tender offers (i.e., offers in which the target resisted but ultimately was acquired or became private).

We found support for the hypothesis that firms with a higher market-to-book ratio were less subject to takeover attempts. This result is consistent with very early research on takeovers of British firms in the 1960s (Kuehn, 1969) as well as one of the earliest theories of takeover (Marris, 1964), although it differs from Palepu's (1986) finding of no significant relation between market-to-book and successful takeover in American firms in the 1970s. Contrary to our hypothesis, firms with a higher return on equity were actually subject to a higher rate of receiving a tender offer than firms with a lower ROE. This result must be interpreted with considerable caution, however, as models that included only successful bids and models that included only hostile bids found no significant relation between ROE and takeover risk. Moreover, alternative model specifications using different measures of performance (return on assets, net profit, total market returns) showed no relation between performance and takeover risk, regardless of the dependent measure.

We found some support for the free-cash-flow hypothesis: Firms with greater debt were less attractive targets for takeover in all model specifications. Our measure of cash flow, however, was not significantly associated with receiving a takeover bid net of ROE, and our free-cash-flow indicator was also not significant.

Consistent with our expectation, older firms were significantly more likely to receive a hostile tender offer. Workforce tenure did not increase firms' risk of takeover, however, and bore a negative and borderline significant relation to the risk of getting a tender offer. Firms experiencing growth in their workforce, by contrast, were subject to a marginally lower rate of takeover when all bids were included in the model than comparable firms that were stagnant or shrinking. The interaction term for low-growth/high-tenure was not significant in any model.

Neither family control, bank control, nor control by some other major blockholder discouraged takeover bids, although family-controlled firms were less likely to receive hostile bids. This result is consistent with Walkling and Long's

Table 3

Factors Affecting the Risk of Receiving a Takeover Bid among *Fortune* 500 Firms January 1983–December 1990 (Time-changing Covariates)*

Variable	All bids	All successful bids	Hostile bids	Successful hostile
Market to book	−0.228•	−0.212•	−0.274•	−0.318•
	(−2.20)	(−1.89)	(−1.88)	(−1.97)
Return on equity	0.004•	0.002	0.003	0.002
	(2.73)	(0.66)	(0.83)	(0.61)
Cash flow	0.331	0.247	0.401	0.334
	(1.33)	(0.82)	(1.05)	(0.78)
Debt	−0.747•	−0.796•	−0.939•	−1.049•
	(−2.54)	(−2.46)	(−2.17)	(−2.11)
Free cash flow	−0.29	−0.020	−0.400	−0.577
	(−0.09)	(−0.06)	(−0.84)	(−0.98)
Age (log)	0.160	0.095	0.606•	0.590•
	(0.81)	(0.46)	(2.00)	(1.71)
Workforce tenure	−0.134•	−0.097	−0.134	−0.066
	(−1.98)	(−1.34)	(−1.45)	(−0.64)
Growth rate	−0.011	−0.010	−0.005	−0.003
	(−1.63)	(−1.40)	(−0.56)	(−0.25)
High tenure/ low growth	0.222	0.139	0.422	0.314
	(0.84)	(0.49)	(1.19)	(0.77)
Family control	−0.216	−0.159	−0.650•	−0.694
	(−0.79)	(−0.54)	(−1.75)	(−1.63)
Bank control	0.454	0.533	0.513	−0.657
	(1.16)	(1.27)	(1.12)	(1.30)
Misc. control	0.458•	0.477	−0.021	−0.146
	(1.72)	(1.65)	(−0.06)	(−0.35)
Market value (B)	−0.075	−0.091	−0.096	−0.149
	(−1.68)	(−1.69)	(−1.52)	(−1.60)
Institutional ownership	−0.011	−0.016•	−0.012	−0.021•
	(−1.79)	(−2.25)	(−1.35)	(−1.97)
Banker on board	−0.241	−0.191	−0.185	−0.038
	(−0.72)	(−0.53)	(−0.42)	(−0.08)
Network centrality	0.023	0.025	0.020	0.025
	(1.29)	(1.35)	(0.82)	(0.92)
Model chi^2	47.8•	37.2•	31.7•	30.2•

• $p < .05$.

* *t*-statistics are in parentheses. Reported significance levels are one-tailed for hypothesis tests, two-tailed for the control variables (market value and institutional ownership).

(1984) finding that ownership by insiders reduces the likelihood that a takeover bid will be resisted and with Morck, Shleifer, and Vishny's (1988) interpretation that friendly takeover bids for family-controlled firms are often negotiated deals precipitated by the founding family seeking to cash out. Somewhat surprisingly, there was a trend for firms with a large outside nonfamily, nonbank ownership block to be subject to a higher rate of tender offers ($p < .10$), although this effect was not discernible for hostile bids.

Our control variables revealed that firms owned proportionally more by institutional investors were subject to a lower risk of takeover, while size had no significant effect. Having a finance CEO, however, significantly increased the rate of receiving a takeover bid, although it was not significantly associated with successful bids.

Table 3 repeats the analyses for the years 1983–1990 and includes measures of ties sent from banks and total interlocks. Neither of these measures had a statistically significant effect on firms' risk of takeover in any model specification.

DISCUSSION

These results do not neatly support a single account for why firms were taken over in the 1980s. Firms with a higher market-to-book ratio faced a lower risk of takeover (hypothesis 1), consistent with an efficiency story, and firms with greater debt faced a lower risk (hypothesis 4), consistent with a slack-reduction story, yet other measures of performance and efficiency did not affect the risk of takeover as hypothesized. Thus, these results conform to the notion that takeovers discipline poorly performing management only to the extent that one has faith in the efficacy of capital markets in evaluating management and one believes that lower debt is a sign of poor management. An alternative interpretation, that firms with low debt that were undervalued by the stock market were bargain acquisitions, is, of course, possible.

We found support for the organizational inertia explanation of takeovers. Older firms were subject to hostile takeover attempts at a significantly higher rate (hypothesis 5), consistent with the hypothesis that structural inertia made a firm ripe for takeover. In some sense this finding completes the cycle started with early research on the liability of newness. Following Stinchcombe (1965), ecologists argued that younger organizations died (disbanded) at a higher rate than older ones because of their relative inexperience and lack of legitimacy and that this rate dropped off over time. More recently, researchers have found a "liability of adolescence" (Brüderl and Schüssler, 1990), in which organizations start off with a stock of good will that protects their early life, but their death rate increases after this initial period ends and only then begins to decline again. Large corporations very rarely disbanded during our sample period, but absorption or dismemberment following takeover was common. Our results suggest that this risk is also related to organizational age but that, unlike death (and contrary to the

findings of Freeman, Carroll, and Hannan, 1983), it is highest for old organizations rather than young ones. The primary hazards facing corporations may change over the life course: When organizations are first established and have little experience, they face a relatively high risk of death; as they get older and experience translates into rigidity, their risk of takeover dominates while their risk of death declines.

Firms experiencing greater growth faced a lower risk of becoming a takeover target or, conversely, firms with low or negative growth were more likely takeover candidates. This is consistent with the notion that firms that would have profited from shrinking their labor force faced a greater risk. Yet we found no evidence that firms with more-tenured workforces were subject to a greater takeover risk; to the contrary, they were subject to a somewhat lower risk net of organizational age. The negative effect of growth may be attributable to the fact that growth in general keeps average wages relatively low or that growing firms are vital enough to need no outside intervention.

Our results support the notion that family control reduced a firm's risk of hostile takeover (hypothesis 7), but neither having a bank executive on the board nor control of a significant block of stock by a bank affected this risk (hypothesis 8). Also, significant stock ownership by another organization not only failed to reduce the risk of takeover, it had a marginal positive effect, perhaps because large blockholders not affiliated with management are more easily swayed by raiders. Thus, while family control may reduce the sort of managerial discretion that is thought to induce takeovers, or at least provide a stumbling block to outsiders seeking control, ownership of a substantial block of stock by banks or other firms had no such effect. Having an executive of a large bank on the board of directors also failed to save firms from takeover.[4] These results fail to support the predictions of bank control theory; moreover, they suggest that commercial banks are not particularly effective either at preventing managerial discretion or at protecting from takeover the firms to which they are connected. Thus, there is little evidence that a regime of more active bank participation in corporate governance would yield substantial benefits, contrary to the claims of recent commentators (e.g., Thurow, 1992).

Firms that were well connected in the interlock network were also not protected from takeovers (hypothesis 9). This is somewhat surprising in light of evidence that such connections promoted the spread of takeover defenses (Davis, 1991). It is, however, consistent with the notion that takeovers are often undertaken by outsiders with little reverence for the existing corporate pecking order (Hirsch, 1986).

Ownership by institutional investors had a significant negative effect on receiving a takeover bid, which belies the notion that institutions are simply short-term investors content to reap the benefits that takeovers bring to absentee owners. One possible interpretation is that institutions such as banks and private pension funds are (or were) generally

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This null result also held when we counted only instances in which the board member was an executive of one of the ten largest banks in the U.S.

supportive of management, perhaps because their fiduciary duty to shareholders to remain receptive to takeover bids was overshadowed by their interest in maintaining cordial relations with corporate managers on whom they rely for business (cf. Pound, 1988). Alternatively, professional investors as a class may simply have been more astute at investing in well-run firms that were not likely to be taken over, consistent with the fact that institutional ownership is positively correlated with market-to-book ratio.

Finally, having a finance CEO significantly increased the risk of becoming a takeover target. The estimated multiplier [exp(.699) = 2.0] indicates that firms with a finance CEO faced hostile takeover bids at about twice the rate of comparable firms with CEOs from other functional backgrounds. This suggests that finance CEOs, rather than being particularly skilled at running the firm to serve shareholder interests, were carriers of a conception of control that no longer met their own standard of keeping the share price up. There is considerable evidence that finance CEOs pursued conglomerate growth strategies in the 1960s and 1970s (Fligstein, 1990), but the strategy of treating the firm as a portfolio of unrelated divisions became widely discredited during the 1980s, as the notion that shareholders, not firms, should diversify became widely shared among both investors and managers. Moreover, firms with finance CEOs continued to make conglomerate acquisitions late into the 1980s, despite the fact that conglomerates faced a high risk of takeover during this period (Davis, Diekmann, and Tinsley, 1992). Thus, to the extent that having a finance CEO indicated (correctly, as it happens) that the firm would pursue the discredited strategy of conglomerate growth, our finding suggests that such firms were attractive targets for takeover discipline. Firms with finance CEOs were not, however, more likely to be successfully taken over, which suggests that finance CEOs may be more skilled at techniques for battling unwanted takeover bids. On balance, finance CEOs were not a bargain for shareholders. While both agency theory and the finance conception of control purport to take increasing share price as the appropriate measure of performance, the finance conception—treating the firm as a portfolio—failed to deliver.

The most significant implication of these results for organization theorists is that several of the truisms of organization theory are now questionable when it comes to large corporations. There is great irony in the fact that firms that maintained slack to buffer themselves from environmental uncertainty by taking on little debt were prime candidates for takeover in the 1980s, indicating that success in Thompson's (1967) terms led to failure in financial terms. Ecologists consider old organizations to have demonstrated their fitness by surviving the liabilities of newness and adolescence, yet the market for corporate control subjected older firms to significantly higher rates of hostile takeover than younger ones. Finance CEOs, once considered assets for firms seeking growth (Fligstein, 1990), became liabilities in the 1980s. Moreover, being well connected to other large corporations, typically taken as a sign of membership in the

inner circle of the corporate elite (Useem, 1984), provided no discernable protection from takeover, nor did connections with large banks protect firms. Ironically, then, several of the features that characterize successful organizations in organization theory marked large corporations for takeover in the 1980s.

CONCLUSION

Our goal in this paper was to provide evidence on the causes of large corporate takeovers in the U.S. in the 1980s and to draw out some initial implications of the market for corporate control for theory about organizations and environments. Through the actions of capital markets, firms that would have been considered well run by the standards of extant organization theory became takeover targets in large numbers during this period, and traditional sources of power such as network position provided no protection. Thus, takeovers substantially undermined both previous standards of success and the existing power structure. This indicates an underlying shift in the dominant conception of the firm toward a financial model, and the shift to a financial model effectively changed the rules for large corporations.

Organization theorists have assumed a managerialist conception of the corporation and have therefore paid insufficient attention to issues of ownership and control and to financial markets more generally. Moreover, the shift to a financial model cannot be readily accommodated by simply augmenting existing adaptive theories of organization with mentions of capital markets. Organization theorists must grapple directly with the nexus-of-contracts approach to the firm that now dominates economic thinking and the policy discourse that it informs.

The nexus-of-contracts imagery of agency theory, and its focus on the inherent conflict between the interests of shareholders and the interests of those who run and work for the firm, provides useful starting heuristics for rethinking organization theory. Notions of contracting in organizations are not alien to organizational scholars (e.g., Thompson, 1967), but the central focus on conflicting interests is a useful curative to the notion of a global organizational interest that accompanies the biotic metaphor of organizations. Yet, contrary to the atomistic causal imagery of agency theory, interests are not strictly individual pursuits, and the ability of members of the organizational nexus to gain a favorable cut depends on their positions in social structures and their access to strategies. Class interests, in particular those of the managerial class who benefitted from the previous system of stable control, are activated by the takeover market, and "there is every reason to believe that just as commodification of labor during the industrial revolution gave rise to organized labor, commodification of organizations may result in organized opposition on the part of workers, clients, and suppliers" (Meyer, 1991: 212). Evidence of such cohesion among interlocked boards of directors suggests that a more political analysis would provide insight into the new model of the corporation (Davis, 1991), and the newly formed capital unions linking

institutional investors into a movement actively pushing an agenda of shareholder rights bears substantial resemblance to social movements such as the early organization of labor. The stability of corporate control was undermined by the construction of a takeover market for large firms, and the financial model of the corporation has been largely institutionalized, but the redefinition of the corporation is not a fait accompli, and the bases of power of corporate players have not been entirely eroded. The passage of a raft of antitakeover laws by state governments and the subsequent standstill of the takeover market demonstrates the effectiveness of the managerial counterrevolution.

Perhaps more importantly, agency theory fares rather poorly as an empirical theory, despite its imposing status as a normative theory. The market for corporate control is an essential backstop in agency theory. Without it, a low share value poses less pressing dangers for a firm's managers. Thus, the idea that the market for corporate control can be shut down through political maneuverings by corporate managers, albeit rather late in the day, has damaging implications for agency theory and increases the importance of the board of directors as a monitoring mechanism. Yet agency theorists seriously misconstrue the extent to which boards can be seen as vigilant monitors looking out for their shareholder principals—if anything, boards' interests are much more closely tied to those of managers (Davis, 1991). Without takeovers and vigilant boards, the foundations of agency theory as an empirical theory are weak, as the null to modest effects reported here attest. Thus, agency theory, as it stands, does not provide a credible alternative theory of organizations. Instead, what is required is an approach that integrates financial economic notions of the firm with political models that link organizations and the state (Grundfest, 1990).

Organizational theorists have used political imagery and notions of coalition building within the organization in modeling the determination of organizational goals (e.g., Cyert and March, 1963), but the rise and fall of the market for corporate control were largely governed by state and federal governments, the actions of which are beyond the range of most political models of organizations. Institutional theorists have pointed to the role of ideologies and state and federal governments in ordering organizational fields in the U.S. (Scott and Meyer, 1991), but this model has been applied primarily to public sector organizations. For large corporations, the managerialist notion of control can no longer be taken for granted, and the standards of effectiveness defined by capital markets take precedence over those of organization theorists. We have provided initial evidence on why previously immune firms were taken over in the 1980s and how this reflects on existing theory. A more explicitly political model of the large corporation that includes both capital markets and the state in structuring organizational fields, coupled with a recognition that corporate action is embedded in social networks that extend beyond the atomistic nexus-of-contracts of financial economics, would provide a great improvement over existing

models of organizations. Research documenting the political strategies used by corporate managers to evade takeover, both individually and collectively, would provide a rich empirical base for constructing such a model, while coalitional models of the firm and institutional approaches to the role of the state in structuring organizational fields would provide an appropriate starting place for theory.

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