THE CIRCULATION OF MANAGERIAL ELITES:

DECLINE OF FINANCIAL CEO\textsc{s}

IN LARGE U.S. MANUFACTURING FIRMS, 1981-1992

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ABSTRACT
We extend the theory of circulation of elites and apply it to the selection of functional backgrounds of new CEOs in large U.S. manufacturing firms from 1981-1992. The circulation of managerial elites entails both political contests for the top executive positions in corporations and ideological struggles over defining the corporate agenda and purpose. We study 277 CEO succession events and find that intraorganizational political dynamics and the circulation of elites add to Fligstein's explanations of CEO selection which were based on strategic contingencies and institutional isomorphism. Furthermore, we find evidence of a decline of financial CEOs and a change in the strategic contingencies that previously favored finance and the financial conception of control. The result suggests that conceptions of control associated with the power of the various subunits are best viewed as styles or convention, rather than institutions, and that the various styles are subject to contestation and change.
The Circulation of Managerial Elites: Decline of Financial CEOs in Large U.S. Manufacturing Firms, 1981-1992

During the 1960s and 1970s, executives with financial backgrounds gained a dominant position in U.S. industrial enterprises, attaining the highest levels of the organizational hierarchy and securing control over how the corporate purpose was conceived, defined, and executed (Hayes and Abernathy, 1980, Fligstein, 1987). The rise of finance personnel to positions of power and formal authority was accompanied by a transformation in critical outcomes and strategies in large corporations. Organizational sociologists have shown how the financial background of Chief Executive Officers (CEOs) and top executives influences corporate structures and the rise of the multidivisional firm (Fligstein, 1985), mergers and acquisitions (Fligstein, 1990; Fligstein and Brantley, 1992), and the market for corporate control (Davis and Stout, 1992). The rise to power of financial CEOs altered the agenda and direction of large U.S. industrial corporations and led to an articulation of corporate assumptions, values, and goals that Fligstein (1990) has termed the finance conception of control. This conception views the corporation as a portfolio of assets earning differential returns. It focuses on attaining short-term profitability, using financial tools to evaluate existing product lines and divisions and engage in mergers and acquisitions as central elements of corporate strategy (Fligstein, 1987, 1990).

Note that the finance conception of control, although associated with presidents and CEOs from financial backgrounds, is inconsistent with modern finance theory. Contemporary finance theory stresses...
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Fligstein (1987) argues that the choice of functional background reflects an intraorganizational power struggle that is shaped by the strategy and structure in the organization, changes in antitrust laws, and mimetic isomorphism. He invokes both structural contingency (Hickson, Hinings, Lee, Schneck, and Pennings, 1971) and institutional theories (DiMaggio and Powell, 1983) to explain the internal and external sources of power in organization. But the intraorganizational power struggle is not modeled directly, and the ability of finance and other subunits to perpetuate their power by maintaining control over top management positions remains an agenda for future research (Fligstein, 1987: 57). By focusing on strategic, structural, and institutional processes that shape the choice of functional backgrounds of CEOs, the political dynamics are treated implicitly as an ephiphenomena, a mere reflection of strategic contingencies, resource dependencies, and external environmental forces.

This paper extends past research (Fligstein, 1987, Ocasio, 1994a) by focusing explicitly on the intraorganizational political dynamics that underlie the rise and fall of different functional backgrounds to positions of dominance in U.S. industrial corporations. We develop a theory of circulation of managerial elites and apply it to an empirical study of changing functional backgrounds of CEOs in large manufacturing firms from 1981 to 1992. Ocasio (1994a) developed a model of circulation of power and applied to individual CEO succession in U.S. industrial corporations. The circulation of power highlights the obsolescence and contestation of executive power, as corporate

that financial diversification is best undertaken by individual investors rather than by corporations (Brealy and Myers, 1991). The term used by management scholars to refer to the finance conception of control is portfolio planning or portfolio management (Haspelagh, 1982).
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Elites vie for status, position, and control of the organizational hierarchy. Consequently, elite circulation and opposition to executive power increase over time. In this study we extend and apply the model of circulation of managerial elites to study the rise and fall of functional backgrounds of CEOs. Furthermore, we contrast the model with an alternative conceptualization of political dynamics, that of the entrenchment or institutionalization of power (Salancik and Pfeffer, 1977; Pfeffer, 1981).

A secondary objective of this study is to examine whether the dominance of financial CEOs has continued during the 1980s and early 1990s. The decade of the 1980s was characterized by widespread changes in corporate governance, including increased takeovers (Davis and Stout, 1992), corporate restructurings (Useem, 1993), and the decline of conglomerate forms of organization (Davis, Diekenmann, and Tinsley, 1994). These changes were accompanied by ideological challenges to the finance conception of control and the view of the corporation as a portfolio of assets that could be managed through the use of economic and financial indicators. To explore whether and how these changes affected the underlying dominance of the finance conception of control, we will examine whether the financial function was able to maintain its dominance over the CEO position, and whether the underlying structural contingencies that favored financial executives in the past were still prevalent.

This paper presents multinomial logistic regression models of the selection of functional backgrounds of new CEOs from 1981-1992. Baseline models of structural contingency and institutional isomorphism adopted from Fligstein’s (1987) analysis are compared with the models of internal political dynamics hereby proposed. The study shows that political dynamics at the corporate level provide an independent explanation
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for the choice of functional backgrounds. Furthermore, the study shows that the political
dynamics of executives are characterized by the circulation of managerial elites, and this
process has led to the decline of financial CEOs during the 1980s and 1990s.

THEORY

Political Dynamics in Organizations

Existing theories of power and politics emphasize the importance of resource
dependencies and structural contingencies in explaining the structural basis of power in
organizations (Crozier, 1964; Thompson, 1967; Perrow, 1970; Hickson, Hinings, Lee,
perspectives emphasize the functional role of power in organizations. According to these
views, internal power will go to those individuals and groups that (a) are best able to cope
with uncertainty, (b) are more difficult to replace, and (c) have greater control over the
resources critical for the organization’s ability to adapt to its environment. These ideas
are closely linked to an exchange theory perspective on social formations that highlights
the importance of relational dependence and control over the firm’s resources (Emerson,
1962). Their application in the empirical study of organizations has emphasized the
informal basis of relative power in synchronic analysis of different departments and
subunits in organizations (Crozier, 1964; Perrow, 1970; Pfeffer and Salancik, 1978b).

In this paper, we emphasize a different perspective in explaining the struggle for
formal authority in organizations, intraorganizational political dynamics. Models of
political dynamics view the firm as a shifting political coalition with different
organizational subunits having diverse goals and orientations as they attend to different
aspects of the firm’s environment (March, 1962; Cyert and March, 1963). Our focus is
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close tied to political perspectives that emphasize internal power struggles (Fligstein, 1987; Chaves, 1993) and social movements in corporate hierarchical forms (Zald and Berger, 1978). This perspective lends a nonfunctionalist interpretation of organizational power. According to this view, resource dependencies and structural contingencies are not objective criteria but are historically situated social constructions that are themselves the subject of conflict between contending organizational factions. The outcomes of these political struggles serve to define who gains formal authority over the corporation, and what are the critical problems that the organizations must face. Political struggles are shaped by social movements within organizations (Zald and Berger, 1978), with the organizational coup d'etat as a mechanism by which internal factions force executive succession, and seek to align formal authority with industrial and environmental change.

Two Models of Political Dynamics: Institutionalization and Circulation of Elites

Ocasio (1994a) identified two variant models of internal political dynamics in organizations: the model of institutionalization and the model of circulation of power. The first model posits the ability of executives to entrench themselves and perpetuate their power and control over the corporation. The model of institutionalization\(^2\) of power suggests that subunits, once in control, are capable of increasing and extending their control over time. The model of circulation of power stresses the impermanence of power of organizational subunits and the recurring rise and fall of managerial elites. In this

\(^2\) In defining the term, Pfeffer (1981) was influenced by Zucker's (1977) account of institutionalization at the organizational level. As we will discuss below, the institutionalization of power can occur at the level of both the organization and the organizational field (DiMaggio and Powell, 1983).
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paper, we develop and extend this second model, focusing on both institutional and intraorganizational determinants for the circulation of managerial elites.

**Institutionalization of power.** The dominant model of political dynamics in organization theory is that of the institutionalization of power (Salancik and Pfeffer, 1977; Pfeffer 1981; Boeker, 1989). Pfeffer (1981) identified three mechanisms that lead to increasing institutionalization over time: (1) the escalation of commitment to top executives, (2) the taken-for-grantedness of those in power by organizational members, and (3) the ability of the powerful to expend organizational resources and make appointments to perpetuate their power. The institutionalization of power highlights the ability of powerful individuals and groups to increase their control over the corporation over time, and to entrench themselves in the formal positions of authority.

The institutionalization of power is shaped by symbolic as well as material forces that operate both within the organization and at the level of the organizational field. At the subunit level, conceptions of control serve to institutionalize the power of dominant groups, as the goals and orientation of the governing subunit become “infused with value” (Selznick, 1957) and corporate elites protect and enforce these values through the implementation of programs and selection of executives consistent with dominant ideologies and conceptions. Institutional forces create both normative and mimetic pressures for isomorphism (DiMaggio and Powell, 1983), as the power of the dominant group becomes culturally embedded within the field’s dominant conception of control (Fligstein, 1987; 1990).

**The circulation of elites.** The second model of political dynamics builds upon classic political theories of circulation of elites developed by Mosca (1939), Pareto (1968), and
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Michels (1962), but has been less developed within contemporary organizational sociology. Both Mosca and Pareto were concerned with societal dynamics and with providing alternatives to Marx’s theories of economic class. For Mosca and Pareto there is, and must be, in every society a governing elite which rules over the rest of society. This governing elite constitutes the minority group that occupies and controls the formal command posts of society. The concept of the governing elite is distinguished from Marx’s notion of a ruling class by focusing on the possession of the means of administration, rather than the ownership of the material means of production, as the foundations of political power (Bottomore, 1993). According to Mosca and Pareto, governing elites do not constitute a stable, cohesive class, but are subject to circulation, as they undergo changes in membership and composition over time.

Pareto (1968) emphasizes the circulation of elites as a dominant mechanism for societal change. In his view social transformation results from the continual struggles and the replacement and change in governing elites. Several types of elite circulation were identified by Pareto and his pupil, Kublinska (Bottomore, 1993). First, there is intraelite circulation, as different factions of the governing elite contend for power and control over the command posts in society. Second, individuals may circulate between the elite and non-elite, and members of the lower stratum may gain access to positions of formal authority. Finally, individuals in the lower strata may form new elite groups that then engage in political struggles with the dominant elites.

While both Mosca and Michels were primarily concerned with elite circulation at the societal level, Michels extended the theory to intraorganizational political dynamics. Michels (1962) with his “iron law of oligarchy” emphasized the formation of elite groups
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that gained command and control of organizations. A less well known aspect of Michels’ analysis is his discussion of intraelite conflict and contests for power. Elites and oligarchic groups in organizations are not cohesive entities but are themselves subject to struggles among the leaders themselves (Michels, 1962: 172-187). Old leaders contend with new aspirants for control of the organization. According to Michels, a full replacement of elite members is rare, and we find instead an amalgam of power between the contending factions.

*The circulation of managerial elites.*

Building upon classic theories of elite circulation developed by Mosca, Pareto, and Michels, we present a theory of circulation of managerial elites to explain the persistence and change in power of senior executives in large corporations. We argue that elite circulation is a multilevel process that can be applied to the recurrent struggles among individuals, intraorganizational groups, and interorganizational groups for command and control of formal authority and the means of administration in society. In contemporary American society, where organizations constitute the dominant actors (Perrow, 1991), control over the command posts of large organizations provides significant sources of status, power, and material wealth and resources. In large industrial corporations control of formal authority and the means of administrations resides in the senior executives or managerial elites. These managerial elites are subject to intraelite circulation as diverse individuals and factions contend for control of the organization. Managerial elites are also subject to contests for control with external factions, as in the case of the hostile takeovers which became common during the 1980s.
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Ocasio (1994a) applied the theory of elite circulation to study individual CEO succession in publicly-held American corporations from 1960-1990. He compared the models of institutionalization and circulation of power and found greater support for the latter. Ocasio posited two mechanisms for explaining the circulation of power: obsolescence and contestation. Over time, the schemas and strategies of CEOs become obsolete. The formal authority of the organization is also subject to contestation, as internal contenders for the top executive position provide challenges to the power of the incumbent CEO. Ocasio’s analysis of internal contests for control and the circulation of power provides an example of an organizational coup d’état (Zald and Berger, 1978).

In this paper we extend Ocasio’s (1994a) analysis of circulation among individual managers to circulation among the various functional groups that constitute the firm’s managerial elite. We argue that the firm’s political dynamics are characterized by an internal power struggle between functional subunits for control and dominance over the dominant coalition. CEOs play the role of political brokers of the firm’s coalition and its top management elites (March, 1962). The changing functional backgrounds of CEOs reflect the outcome of two interrelated contests for control: (1) the competition between contending factions for position and formal authority at the top of the corporate hierarchy, and (2) the intellectual and ideological struggle over the definition and formulation of corporate purpose, strategies, and goals. The struggle between contending conceptions of control (Fligstein, 1990) shapes the dynamics of organizational rivalry and the strategic orientations that prevails in the organization’s political coalition. The ideologies of control of the different subunits articulate the values, priorities, commitments, and
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orientations of the contestants for executive positions at the top of the corporate hierarchy.

This theory emphasizes how functional subunits represent contending factions that seek to both define organizational strategies and objectives and to gain control over the corporation. The power of dominant factions is subject to circulation and to emergent contests for control of the corporate agenda and purpose. The rise and fall of different functional backgrounds to the position of CEO reflects an intraorganizational power struggle among managerial elites, where periods of political upheaval are interspersed with temporary stability and control by different functions and their dominant ideologies or conceptions of control. The obsolescence and contestation of executive power are accompanied by the rise and fall of alternative conceptions of control to and from positions of dominance within the corporation. The underlying contests for control result in either continued dominance for entrenched elites, or dissipation and change as diverse groups rise and fall. Managerial elites attempt to entrench themselves as suggested by the model of institutionalization of power, while others wait for propitious moments to challenge the power, position, and orientations of incumbents, as suggested by the model of circulation of elites.

Our extension of the theory of circulation of managerial elites presents an alternative to the pure models of institutionalization and circulation of power described by Ocasio (1994a). We argue that the prevalence of entrenchment versus political change is an empirical question whose answer may differ under diverse historical and environmental circumstances. External forces, such as environmental contingencies and isomorphic forces that favor particular conceptions of control, interact with internal dynamics to
shape the relative ability of incumbents to institutionalize their power, and counteract pressures for elite circulation. Ideological struggles play an important role in elite circulation, as ideological contestation decreases the ability of groups to maintain their power and control over the corporation.

Selznick (1957) provides a similar view, linking political changes in elite structure to the ideology of dominant elites. He contends that organizational rivalry is characterized by: (1) the development of administrative ideologies, (2) the creation and protection of elite groups, and (3) the emergence of contending interest groups, which bid for dominant influence. Selznick argues that developmental changes in corporate policies and the institutional embodiment of purpose are reflected in personnel crisis and recall Pareto’s (1968) theory of the circulation of elites to explain the role of innovator types in forging new organizational programs and orientations.

The rise and fall of alternative conceptions of control

Fligstein (1987, 1990) documented the changing patterns and conceptions of control in top executive positions from 1919 to 1979: the early dominance of manufacturing from 1919-1939 was followed, first by the rise of sales and marketing presidents from 1939-1959, and subsequently by finance executives and the finance conception of control. While Fligstein emphasized exogenous structural contingencies and external institutional forces (DiMaggio and Powell, 1983), the models of political dynamics suggest that internal political dynamics have an independent role in explaining the rise and fall of elite subunits. Our theory of the circulation of managerial elites provides an alternative interpretation of Fligstein’s analysis of the rise and fall of alternative conceptions. Models of internal political dynamics suggest that the rise and fall of power
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and control of diverse subunits found by Fligstein (1987, 1990) reflects periods of entrenchment and institutionalization of diverse subunits followed by elite circulation and endogenous contests for control.

**Challenges to Financial Elites during the 1980s.**

In a widely influential article, Hayes and Abernathy (1980) attributed the loss of international competitiveness of American industry to the excessive reliance on portfolio management practices and short-term financial controls at the expense of long-term investments in technology and production. They associated this financial orientation with the rise of finance (and legal) executives to CEO positions in large manufacturing companies. The conglomerate movement of the 1960s and the portfolio management techniques that became popular in the 1970 were presented as reasons for “managing our way to economic decline” (Hayes and Abernathy, 1980).

Faced with increasing competition from Japanese and foreign firms, declining profits, and the recurring loss of market share and competitive advantage in key industrial sectors including motor vehicles, consumer electronics, machinery, and office equipment, the popular business and management literatures sought alternative models of managerial practice during the 1980s and early 90s. It is beyond the scope of this paper to document the multiple approaches offered. Just some of the best-selling concepts included theory Z (Ouchi, 1981), strong corporate cultures (Deal and Kennedy, 1981), “sticking to the knitting,” (Peters and Waterman, 1982), the value chain (Porter, 1985), “lean” production systems, (Womack, et. al., 1990), organizational learning (Senge, 1990), core competence (Prahalad and Hamel, 1990), and business reengineering (Hammer and Champy, 1993). While the solutions offered differed widely, they all shared (1) a strong
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critique of the detached management practices associated with portfolio management, short-term financial controls, and unrelated diversification, and (2) an increased emphasis on the implementation of large scale changes to established production processes and operating practices. By the late 1980s, strategy researchers and practitioners had settled on the "resource-based view of the firm," (Wernerfelt, 1984) and the related concepts of core competence and dynamic capabilities as dominant approaches to strategic management and control. These alternative conceptions favored CEOs with production and technical backgrounds at the expense of financial executives and the finance conception of control. Executives with more technical backgrounds were seen as best able to manage the "portfolio of competences" (Prahalad and Hamel, 1990) and develop and implement the necessary resources for competitive advantage.

The intellectual and ideological challenges to the financial conception of control provided a cultural repertoire (Swidler, 1986) that favored elite circulation and the decline in dominance of finance CEOs. But the 1980s and early 90s were also characterized by the rise of institutional investors and the mobilization of shareholder power (Useem, 1993), structural changes that ostensibly favor a financial orientation. But note that the corporate reorganizations associated with the rise of stockholder interests, typically involve large-scale changes in production and operations, strategies typically associated with CEOs from production and technical backgrounds. This study examines whether finance CEOs were able to maintain their position of dominance, or whether the challenges to their conception of control were associated with their decline in power.
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Hypotheses

Following Fligstein (1987), we first test hypotheses from strategic contingency and isomorphism models for their effects on functional backgrounds of new CEOs from 1981-1992. Note that Fligstein found that the size and statistical significance of these variables varied during different time-periods in which the various conceptions of control became dominant. These hypotheses are presented to examine whether Fligstein’s findings of the dominance of the financial conception of control from 1959-1979 can be replicated for the subsequent time period, or alternatively, whether the challenges to the finance conception of control had an effect in the selection of functional backgrounds of new CEOs.

Strategic contingencies. This study will examine the contingencies faced by CEOs resulting from product strategies, organizational structures, and merger and divestiture activities. The structural contingency model of power (Hickson, et. al, 1971) argues that positions of power will flow to groups best able to meet the critical problems and contingencies faced by the organization in its environment. According to this view, the financial conception emerged as a solution to problems of control in firms with strategies of related and unrelated diversification, large numbers of mergers (and divestitures), and the multidivisional forms of formal structure (Fligstein, 1985, 1987, 1990). The institutionalization of the financial conception of control was linked during the 1960s and 70s to the utilization and formulation of portfolio management techniques and financial controls by CEOs with financial backgrounds.

Isomorphism. Technical, cultural, and political forces may interact to lead to similarity in the selection of functional backgrounds of CEOs among firms in the same
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industry. Institutional theory (DiMaggio and Powell, 1983) posits the role of normative and mimetic pressures in leading to isomorphic tendencies in organizational characteristics within an industry. Technical and economic differences among industries may also account for isomorphism. Finally, the intraorganizational power struggle may be shaped at the industry-level; once a set of actors gains dominance and institutionalizes their power, their subunit counterparts within the same industry may use this fact as a basis for gaining power in their respective firms. Similarly, elite circulation may be affected at the level of the industry, or organizational field. A decline in the power of a functional group within an industry may affect the ability of that group to retain control over formal positions of authority in an individual organization. A decline of institutional isomorphism may consequently be linked to the circulation of power at the level of the individual firm.

**Political dynamics.** The models of institutionalization and circulation of power provide alternative hypotheses on the stability and change in functional backgrounds. As suggested earlier, our expanded model of circulation of managerial elites allows for both effects to be observed with periods of entrenchment followed by elite circulation as new subunits rise to power. A pure model of institutionalization of power implies persistence in the power of the subunit, with increased entrenchment over several generations of predecessors CEO. A pure model of circulation of power implies no persistence in the power of functional backgrounds. The circulation of managerial elites implies periods of temporary entrenchment interspersed with periods of circulation and change in managerial elites. Elite circulation will increase as the ideological challenges to the
subunit increase. This implies that during the 1980s we will find increased circulation of financial elites relative to the marketing and production categories.

**DATA AND VARIABLES**

**Sample**

Our population included all 280 manufacturing firms listed in the *Forbes Sales 500* for 1980, the first year in which data on functional backgrounds of CEOs was collected by Forbes. The sample was limited to manufacturing to account for sectoral difference in the determinants of CEO background. Among the original companies in the population, 29 companies were dropped due to missing data, for a total of 251 companies in the sample studied. We examined CEO succession events in large manufacturing firms from 1981 to 1992. To avoid sample selection bias, the CEOs of these companies were tracked through 1992, even if they dropped from the Forbes 500. By 1992 a total of 79 firms, or 30.9% of the sample were acquired, merged with other companies, went bankrupt, or became privately held. One hundred and ninety companies experienced at least one CEO succession during the period and there were total of 277 succession events occurred between 1981 and 1992.

**Measures**

*Functional background of CEOs.* A primary source for information on CEO functional backgrounds was *Forbes* annual survey of CEOs' compensation, published since 1980. The CEO succession events were identified based on the changes in the name of CEOs. *Forbes* asked the CEOs to identify their functional background as well as their salary level. Forbes used 9 categories to classify backgrounds of CEOs: technical, production, sales, marketing, finance, operations, medical, journalism, and legal. In our
analysis, the classification has been collapsed into four categories: 1) Production and Technical, 2) Marketing and Sales, 3) Finance and Legal, and 4) Operations and other. Categories were grouped based on both sensitivity analysis and on the interrelatedness between functions. The production and technical category includes CEOs from manufacturing, engineering, and research and development. These three functions presuppose a technical background in science and engineering for members of the respective subunits. Marketing and sales are related functions which are commonly joined together in many, if not most firms. We follow Hayes and Abernathy's (1980) influential treatment in grouping both finance and legal in the same functional category. Both groups work closely together in the acquisitions and divestitures of companies that is a central hallmark of the financial conception of control. Operations is grouped with the remaining categories to constitute the baseline group for comparison purposes.

Since some of the companies in our sample dropped out of the Forbes 500 list after 1980, we also used Who's Who in Finance and Industry and proxy statements to identify CEO backgrounds that we couldn't obtain from Forbes magazine. These sources were also used to identify the functional backgrounds of predecessor CEOs whose tenure ended before 1980. The titles of previous executive positions were used to code CEO's functional background, following the classification system developed by Forbes.

**Strategic Contingency Variables.** Corporate strategy and structure were included as measures of the strategic contingencies affecting CEO's functional background. Strategy and structure were identified using information from annual reports and 10ks. Following Rumelt (1974) and Fligstein (1987), corporate strategy was coded as product dominant, product related, and product unrelated (conglomerates) strategy. A firm was classified as
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Product dominant when it had one line of business accounting for more than 70 percent of revenues. Firms with product related strategies had multiple lines of related businesses, with no single business accounting for 70 percent of revenue. Firms with product unrelated strategies were engaged in unrelated business and no one business accounted for 70 percent of revenue. These strategies were coded as dummy variables, with product dominant as the omitted category.

Another measure of corporate strategy was the three-year average of the number of mergers and divestitures undertaken by the firm. Because top management attention is required to execute each of the mergers and divestitures, their combined sum provides a measure of the strategic contingency facing the corporation. Data on mergers and divestitures was coded from Moody's Manual. We conducted sensitivity analysis running the models with separate measures for mergers and divestitures. Although the models are not nested, so a formal comparison is not possible, the separate measures did not improve the fit of the model, even with 3 additional degrees of freedom.

For the structure variable, we compare the effects of a multidivisional form with all other categories, including functional and holding company. The titles of top officers and the description of companies' business reported in annual reports, 10Ks and proxy statements, were used to identify whether or not a company had a multidivisional form.

Isomorphism Variables. Following Fligstein (1987), we captured isomorphism in the functional background of new CEOs by calculating the proportion of CEOs with technical and production, sales and marketing, and finance and legal backgrounds within each industry. The proportion of CEOs with operations and all other backgrounds was

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3 We began with two-digit SIC code to calculate industry level mimetic effect and there were 19
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the omitted category. Since firms are more likely to mimic successful companies rather than poorly performing companies, we used manufacturing companies that were listed in Forbes Sales 500 for each year to calculate these variables. In computing the proportion measure, the company was left out of the calculation when it was included in the Forbes Sales 500 for that year. Thus, the proportion of presidents with each functional background captures the pure effect of the subunit control existed in the industry for each year. The measure is more appropriate than industry dummy variables in capturing isomorphic effects because it captures not only the similarity of cultural environments for companies within industries, but also the relative strength of mimetic pressure within each industry.

**Political Dynamics Variables.** The political dynamics of CEO succession process were captured by the functional backgrounds of the last two CEOs in office. These variables measure the stability in power of functional subunits in the firm. By including the background of the two previous CEOs we can test whether the determination of functional backgrounds can be modeled as a simple Markov process, or whether previous history affects the determination of who control the top executive position. The functional industries by two-digit SIC code level. However, some industries had too few companies which made the isomorphism variable unreliable. Hence, we collapsed some two-digit SIC code level industries. The collapsed industries included: 1) Food and Tobacco; 2) Textile and Apparel; 3) Wood and Furniture; 4) Miscellaneous Manufacturing, and 5) Oil and Petrochemical Refining industries. As a result, the original 19 industries were reduced to 14 industries.

* The model was also estimated with industry dummies, with no change in the findings regarding political dynamics measure. The inclusion of industry dummies, however, changes the effects of the isomorphism variables.
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backgrounds of previous CEOs were collected the same way as functional backgrounds of new CEOs. Operations and all other backgrounds of previous CEOs was the omitted category.

Control Variable. Organizational Size measured as logarithm of assets as reported in COMPUSTAT was used as a control variable. Other control variables (and potential sources of strategic contingencies) were attempted including firm age, employment growth, R&D spending, and advertising spending. These variables were either not statistically significant, or only marginally significant, and did not materially change the remaining results. Given the relatively large number of variables included in the models estimated, we did not include them in the results presented.

Modeling Procedure

We used multinomial logistic regression available in STATA to test the hypotheses. Multinomial logistic regression estimates simultaneously logistic regression models, with pairwise comparisons of each functional category with the base category. The base category was new CEOs of operations and other backgrounds. Therefore, the model estimates parameters of given predictor variables for the likelihood of new CEOs of technical and production, marketing and sales, and finance and legal backgrounds, respectively, versus the base category, operations and others. Note that in determining statistical significance, we must consider not only the individual parameter estimates, but a comparison of parameter values across the equations estimated.

Insert Table 1 about here
RESULTS

Descriptive statistics

Table 1 presents descriptive statistics: means, standard deviations, and correlation coefficients for the 277 succession events included in the sample. Figure 1 presents the distribution of functional background of CEOs for the 251 firms in our sample. Note that in 1981 finance and legal were the dominant functions with approximately 32% of the sample, followed by operations and others with 28%, production and technical with 21% and marketing and sales with around 19%. Figure 1 shows a decline in finance and legal accompanied by an increase in the proportion of both operations and others and productions and technical. By 1983, finance and legal was no longer the dominant category, being surpassed by operations and others. By 1988, finance and legal was also surpassed by production and technical. Finance and legal had dropped to 20% by 1992, compared to 25% for production and sales, and 37% for operations and others. These descriptive statistics provide the first evidence that during the 1980s and early 1990s financial CEOs had failed to maintain their positions of dominance in large U.S. manufacturing companies. At the sectoral level these results provide us the first evidence of circulation of power with the decline of finance and legal at the expense of both production and operations. Note that the production, which had been dominant up to the 1940s (Fligstein, 1987; 1990) had returned to a position of prominence during the 1980s.
Because of the changing composition of manufacturing firms in the Forbes 500, as firms are added and dropped from the top rankings, we want to verify that the changing dominance of finance found for our sample is also found for the new population of firms. Figure 2 provides the distribution of functional backgrounds of manufacturing firms in the Forbes 500. The results are substantially equivalent to those presented in Figure 1 with financial and legal CEOs dropping to 18% in 1992 compared with 39% for operations and others, and 25% for production and technical. These results imply that the dominance of financial CEOs has also declined for new additions to the Forbes 500 manufacturing firms as they have the Forbes 500 manufacturing firms in 1980. The decline in finance CEOs and the increase in production and operations are found throughout all Forbes 500 firms during the 1980s. This provides further evidence of the circulation of managerial elites in the manufacturing sectors since 1981.

**Stability and Change in Functional Backgrounds**

Given our interest in the stability and change in the functional backgrounds of CEOs, we present in Table 2 a classification of the functional backgrounds of new CEOs by the backgrounds of their predecessors. This tabulation describes the intraorganizational mobility in the backgrounds of the CEOs appointed from 1981-1992. The diagonal in the table represents the cases of stability in functional backgrounds of CEOs, with 105 out of
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277 succession events, or 38 % of the sample. The proportions of backgrounds of previous CEOs where the successor is from the same background are 24% for finance and legal, 34% for operations and others, 44% for marketing and sales, and 47% for production and technical. These compare with a proportion of 18% of finance among the 277 succession events, 35% operations and others, 20% for marketing and sales, and 27% for production and technical. Only the production and marketing categories show statistically significant effects for stability in the functional backgrounds of new CEOs.\(^5\)

The results in Table 2 provide support for the importance of intraorganizational political dynamics and for the circulation of managerial elites. Both production and technical and marketing and sales backgrounds increased with prior experience with CEOs of the same background, providing evidence of entrenchment at the organizational level. No entrenchment was found, however, for CEOs from finance and legal, or operations and others. The finance and legal background which had been dominant in the 1960 and 1970 (Fligstein, 1987; Hayes and Abernathy, 1980), was not able to maintain control over the top command position in the firm during the 1980s and early 1990s, consistent with the theory of circulation of managerial elites.

**Determinants of Functional Backgrounds of New CEOs.**

Table 3 presents the results of multinominal logistic regression models of selection of functional backgrounds of new CEOs. Three alternative models are presented: the first model includes the results of the structural contingency and isomorphism hypotheses only and serves to replicate Fligstein's analysis (1987) for the 1981-1992 period; the second...

\(^5\) Statistical significance was confirmed by estimating a log linear analysis of the classifications counts in Table 2 using Poisson regression.
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model includes the effects of background of the first previous CEO as a measure of political dynamics; the third model adds the second predecessor CEO, to capture more fully the history of stability and change in the CEO’s backgrounds. Comparing the results of the three models indicates that the measures of intraorganizational political dynamics significantly improve upon the explanation offered by Fligstein (1987). The chi-square contrast between the first two models is 37.85, with 9 degrees of freedom, which is statistically significant at the .01 level. The chi-square contrast between the last two models is 25.75, with 9 degrees of freedom, significant at the .01 level. Both the prior background of the immediate predecessor CEO and the prior background of the second predecessor CEO explain independently the selection of functional backgrounds of new CEOs in manufacturing firms. The results show that the selection of functional backgrounds of CEOs is a history-dependent process shaped by the firm’s prior experience with the background of top executives.

Insert Table 3 about here

Table 4 shows the statistical significance of the 14 variables included in Model 3. In multinomial logistic regressions we must examine measures of significance not only for individual parameters, but for the differences among parameters of the same variable across the different outcomes of the dependent variables (i.e., across the three functional categories). These measures of significance in Table 4 were estimated by calculating the Chi-square contrasts between Model 3 and an alternative specification that omits the
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specified independent variable as a determinant of the three categories of production and technical, marketing and sales, and finance and legal.

Insert Table 4 about here

Strategic contingencies. Four measures of strategic contingencies - multidivisional structure, related diversification, unrelated diversification, and mergers and divestitures - were used to model the determinants of functional backgrounds of new CEOs. As shown in Table 4, mergers and divestitures was the only variable found to be statistically significant across all models, with negative coefficients on the production and marketing backgrounds relative to the operations and other categories for Models I, II, and III. Note that the coefficient of mergers and divestitures on finance CEOs (relative to operations and others) is positive but not statistically significant. These effects show that firms with large numbers of merger and divestiture activity are less likely to select production and marketing CEOs than either those from finance or operations and others. Both merger and divestiture activities were widely prevalent during the 1980s and remain an important determinant of the functional backgrounds of new CEOs. But this strategic contingency is now almost as likely to favor CEOs with operational backgrounds as CEOs from finance.

Contrary to Fligstein’s findings (1987) no support is found for the effects of multidivisional form or unrelated diversification (conglomerates) in explaining the CEO’s functional background. Note that these effects were central to the dominance of the financial conception of control during the 1960s and 1970s, as finance CEOs were more likely in conglomerate firms and those with multidivisional structures. The effects of
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these two variables on finance CEOs are now negative, although not statistically significant. Interpreting findings that fail to reject the null hypothesis is often treacherous, because the lack of statistical significance could be due to the low power of the test. But in the case of the multidivisional form and unrelated diversification variables it is noteworthy that the maximum likelihood estimates of the effects are in the opposite direction from those obtained by Fligstein (1987) for 1959-1979. While there are differences in the sample between the two studies, the changes in explanatory power between different time periods suggests that the effects of structural contingencies on subunit power is not independent from the dominant ideologies and conceptions of control for each time period. This interpretation is consistent with Fligstein's finding that the effects of structural contingency variables varied with the dominant conceptions of control. For example, he found that the multidivisional firm favored both marketing and finance presidents during 1939-1959 when the marketing conception prevailed, but only finance presidents during the 1959-1979 period, when the financial conception became dominant. The failure of multidivisional structures and unrelated diversification strategies to result in an increased likelihood of finance CEOs during the 1980s and early 90s suggests a decline in that underlying conception of control that articulated a link between these contingencies and financial executives.

While the variable for related diversification is not statistically significant across the various functional backgrounds, there is partial evidence for an increase in production CEOs relative to operations and others, significant at the .10 level. Firms with related diversification are more likely to rely on similar technologies and capabilities, and such firms may more likely to favor production and technical CEOs which are better able to
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exploit competitive advantages across related businesses. Related diversification does not lead, however, to a statistically significant difference between production and finance. These results show, therefore, that neither related nor unrelated diversification favored financial or legal CEOs during the 1980s and early 90s, nor the finance conception of control.

Ismorphism. An examination of the industry isomorphism variables in Table 4 shows the effects of the proportion of firms in an industry with a given background had limited effect on the selection of new CEOs. The effect is statistically significant at the .10 level for production and technical and not significant for the other categories. Note however that the industry isomorphism effect for production and technical is significant at the .01 for the coefficient of production and technical relative to the baseline category in Model 1, and at the .05 level in Model II (Table 3). The evidence for institutionalization of production at the industry level is complicated by the fact that the differences with finance are not statistically significant. Industries with large proportions of productions CEOs are almost as likely to have finance CEOs as production and legal. Also note that the effects of proportion of marketing CEOs are not statistically significant in any of the three models. The effects of proportion of finance CEOs increase the rate of marketing CEOs rather than finance CEOs, significant at the .10 level for Models I and II, and at the .05 level for Model III. But as indicated in Table 4, the differences are not statistically significant across all three categories.

The results of the isomorphism variables suggest that both entrenchment and elite circulation were observed at the industry level during the period studied. The selection of marketing CEOs suggests a form of elite circulation at the industry level: they are
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somewhat more likely to be selected in industries where finance predominates and no more likely in industries with a higher proportion of other marketing executives. Entrenchment at the industry level explains helps isomorphic tendencies only for production CEOs, but proportion of production may also increase finance CEOs, significant at the .10 level in Models I and II.

**Political dynamics.** Models II and III present two specifications of the models of political dynamics. The results in Model II support the entrenchment of power at the corporate level, for production and technical, and marketing and sales CEOs, significant at the .05 level, but not evidence of entrenchment for finance. At the corporate level, the subunit power of production and technical and marketing and sales become entrenched, as the subunit once in power is more likely to maintain the position of CEO. In the case of prior background in finance, the differences between the categories are not statistically significant. But note that the maximum likelihood estimate of the coefficient for the effects of prior finance background on finance is negative (-0.45), and smaller than the effects on marketing (-0.11) and production (0.26). While statistical inferences cannot be drawn from these results, they nevertheless suggest that at the corporate level, the circulation of power better explains the lack of stability in functional backgrounds of finance CEOs. Finance CEOs, unlike their counterparts in production or marketing are

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6 Note that while the individual coefficients of prior marketing and sales on marketing and sales (relative to the baseline category) are only significant at the .10 level, the effects on marketing and sales relative to both production and technical and finance and legal are statistically significant at the .05 level. The persistence of marketing CEOs is more likely to result at the expense of decreased production and decrease finance CEOs, rather than decreased operations and others.
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unable to institutionalize their power within the firm, and are more subject to contestation from other subunits.

Model III examines how the history of the functional background of the two previous CEOs affects the functional background of new CEOs selected. Here the stability of intraorganizational power goes beyond the power of the immediate incumbent to select CEOs from the same background to how the power may persist (or change) across several generations of CEOs. Long term persistence across two generations of previous CEOs was found only for the case of the marketing and sales categories. While the second previous generation of CEOs from production and technical decreased the subsequent proportion of finance and legal relative to operations they did not increase the proportion of CEOs in the same production and technical category itself. While production and technical CEOs increased in total from 1981-1992, this increase did not reflect any long term entrenchment, at the corporate level, of CEOs from this functional background.

Control Variable. Firm asset size, included as a control variable, increased the selection of new CEOs from production and technical backgrounds, relative to both finance and the base category. One possible explanation is that during the time period studied the power of production and technical subunits increased for manufacturing firms and that larger firms were more likely to lead these sectoral changes. Another possibility is that asset size reflects a strategic contingency associated with investments in fixed capital, and that for the time period studied CEOs from production and technical background were seen as best able to meet the challenges of large capital investments. Note that size had no effect in Fligstein’s study (1987), although his sample differed
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because it includes retailing and service firms and was limited to the top 100 firms for each decade.

**Wither Finance?**

Fligstein's historical and statistical accounts (1985, 1987, 1990) of the transformation of U.S. corporate control highlight the rise of financial executives and the finance conception of control since the 1980s. As discussed above, we find a dramatic shift as finance CEOs have declined from 33% in 1980 to less than 20% in the Forbes 500 manufacturing firms. Furthermore, the determinants of financial CEOs found by Fligstein, the multidivisional firm, related and unrelated diversification, and proportion of firms with financial CEOs no longer hold for the 1981-1992 period. Only the number of mergers and acquisitions is higher for finance and legal CEOs than for production and technical or marketing and sales, but this variable no longer distinguishes financial executives from the operations and others category. Finally, there is no evidence of entrenchment of power for CEOs with financial or legal backgrounds. These combined findings all suggest a decline in finance CEOs and the financial conception of control since 1981.

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Insert Table 5 about here

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The findings on the decline of finance and the failure of the strategic contingency, isomorphism, and political dynamic variables to account for financial and legal CEOs during the period studied suggest that financial executives and the financial conception of control have lost their separate identity during the same period. The ideological challenge
to the financial conception of control may have led to a decline in the ability of financial executives to differentiate themselves from other general managers. In Table 5 we reestimate the multinomial logistic regression results for Models I, II, and III by collapsing the finance and legal category into operations and others. Isomorphism and political dynamic variables for finance and legal are also excluded. The results in Table 5, when compared with Table 3 show that there is no statistically significant difference in the determinants of finance and legal from operations and others. The chi-square contrasts between Model I in Table 5 and Model I in Table 3 is 11.14 with 10 degrees of freedom, which is not significant, Neither is the chi-square contrast between Models II in Table 5 and Table 3 (16.45, with 15 degrees of freedom) nor between Models III in Table 5 and Table 3 (23.92, with 20 degrees of freedom). Finance and legal, previously the dominant categories for U.S. executives, can no longer be distinguished from the base category of operations and others. Financial CEOs, during the 1980s and early 1990s, may constitute another form of general managers, no longer distinctive from the operations category. This is further evidence of the decline of finance conception of control to maintain its power over the U.S. corporate landscape.

DISCUSSION AND CONCLUSIONS

This study had two primary objectives: first to examine whether and how intraorganizational political dynamics shape the functional backgrounds of new CEOs; second, to investigate whether finance CEOs continue to dominate in U.S. manufacturing during the 1980s and the beginning of the 1990s. A principal contribution of this study is to show that as predicted by political dynamics models, the backgrounds of previous CEOs had a statistically significant impact on the functional backgrounds of new
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executives. We found that subunit power is a path-dependent process, with corporate-level political dynamics serving as a primary determinant of stability and change in CEO backgrounds. While environmental factors influence executive selection and succession, the models of internal political dynamics significantly add to the explanations offered by strategic contingencies and isomorphism theories.

The effects of intraorganizational political dynamics are shaped not just by the background of the immediate predecessor, but by the backgrounds of the last two executives. CEO selection was found to be a history-dependent process with organizational memory. This suggests that the power of functional backgrounds may extend, in selected instances, beyond the power of incumbent CEOs to influence the selection of their successors from the same background. This entrenchment in power over two different CEOs was only found, however, for the case of marketing and sales. The incidence of previous CEOs from production was found to decrease the likelihood of finance and legal CEOs without any evidence of long term entrenchment of production and technical executives.

While intraorganizational political dynamics were found to significantly affect the selection of functional backgrounds, we found no simple universal pattern of entrenchment or circulation of power, but both processes were experienced for different backgrounds and at different levels of analysis. We conclude that the circulation of managerial elites entails recurrent contests for power both internal and external to the firm, with periods of entrenchment alternating with periods of circulation. While the results are clearly at odds with models of pure entrenchment or institutionalization of power for all backgrounds, no one pattern emerged to explain the dynamics of CEO
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selection. This study found both industry-level and corporate-level entrenchment for CEOs from production and technical backgrounds, with statistically significant effects for the immediate predecessor CEO, but no effect for the second predecessor. For CEOs with marketing and sales backgrounds, no industry-level effects were found, but the history of the next to the last CEO had a positive and significant effect on subsequent selection of marketing and sales executives. For finance CEOs no evidence was found of entrenchment at either the industry or the corporate level, results more consistent with the model of circulation of power.

The complex pattern of entrenchment and circulation of managerial elites from different backgrounds suggests that functional backgrounds of CEOs are best characterized not as institutional features of the U.S. industrial landscapes, but as conventions or styles (White, 1992) that are subject to contestation. White (1992: 17, 166-167) defines styles as profiles or formulas that integrate behavior across disparate network populations and which emerge in fluid social contexts characterized by a wide variety of formations and stochastic processes. Consistent with Fligstein’s (1987, 1990) notion of conceptions of control, White (1992) characterizes styles as emerging from the “success of actors in imposing their own theory on their larger social reality, a theory necessarily shaped in terms of their structural equivalences (166).” But White distinguishes styles from institutions as the former emerge under conditions of ambiguity and are maintained by the structural positions of actors with a particular style. Styles, unlike institutions are not “taken-for-granted” but are subject to emergent contest for control among actors with different styles. The circulation of managerial elites can be consequently characterized as the process of contestation among different styles over the
prevailing theory to guide the governance of organizations, to handle the ambiguity associated with executive positions, and to control the formal command posts in organizations.

Our findings coupled with the characterization of the changing dominance of functional backgrounds of CEOs as changes in styles, rather than in institutions suggests a more fluid and stochastic process of CEO selection than in Fligstein’s account (1987). We argue that the changing conceptions of control in U.S. industry do not imply “institutionalization” or “taken-for-grantedness” in either the power or the theory behind any particular conception, but rather the predominance of a particular style or theory as conditions change and as its ability to control the formal structural positions in organizations increase. But the power of functional elites is not absolute, but is always subject to contestation.

The circulation of managerial elites as styles contending for ideological and political control can be contrasted with the institutionalization of insider CEO selection in U.S. industrial corporations. Vancil (1987), Cannella and Lubatkin (1993), and Ocasio (1994b) have studied the selection of insiders vs. outsiders as CEOs and found both formalization of insider selection and persistence and entrenchment of insiders in a majority of large U.S. industrial corporations. While recent anecdotal evidence suggests that outsider selection may be increasing, the selection of insider candidates as CEOs was taken-for-granted in most corporations during 1960-1990.

The failure of persistence of finance CEOs during the 1980s shows a quite distinct pattern. No entrenchment was found at either the industry or corporate level, consistent with the notion of circulation of power. The strategic and structural contingencies that
explained the rise of finance to top executive positions from 1959-1979 in previous studies, were no longer valid during the 1981-1992 period. The related diversification and multidivisional firm measures, while not statistically significant, were in the opposite direction from prior findings. This historical change is consistent, however, with Fligstein’s (1987) finding that the effects of strategic contingencies on subunit power are dependent on the conceptions of control that dominate during each time period. More specifically, these results suggest that the intellectual and ideological challenges to the finance conception appear to have severed the link between the contingencies associated with diversification strategies and multidivisional structures and the ability of finance CEOs to effectively meet the challenges confronted.

The pattern of circulation of financial CEOs since 1981 is tied to the ideological challenges to financial elites and to their association with portfolio management and the financial conception of control. We found that the decline in power of finance CEOs at the level of the sector, industry, and firm and the ideological challenges to the financial conception of control and to portfolio management during the same period were accompanied by a blurring of the distinct identity of finance from operations. While the selection of financial CEOs can be distinguished from production and technical and marketing and sales by the lower merger and divestiture activity in firms that select these two functional categories, finance cannot be distinguished from operations and other among this dimension. Furthermore, we found that distinguishing finance from operations was not statistically significant from the more parsimonious models that collapsed finance into the operations and others category. To explain the decline in finance as a separate identity in CEO selection process we propose two interrelated
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explanations for further study. First, the ideological challenge to the financial conception of controls and to portfolio management weakened the theory and identity behind the financial "style." Second, financial CEOs are now more likely to possess a Master in Business Administration (MBA) as a general management degree, rather than obtaining their financial identity through on-the-job training and identification with the finance functions. The MBA identity for finance may be increasingly indistinguishable from a general managerial and MBA identity for operations CEOs. CEOs from production and technical and marketing and sales may have closer links to these distinctive functions.

In studying intraorganizational political dynamics and the decline in dominance of finance CEOs this paper provides both theoretical and empirical contributions to the theory of circulation of managerial elites. Empirically, the paper provides the first application of the theory to the circulation of power among functional backgrounds of CEOs. The empirical findings of the study serve to counter the more prevalent conception of the alternative theory of political dynamics, that of the institutionalization of power.

The theoretical contribution of this paper resides in presenting the process of elite circulation as a multilevel process that is conditioned by sectoral, industry, and corporate level effects. The theory is also extended to incorporate both the entrenchment and the circulation of power at different time periods and under different historical contexts. Furthermore, the paper links the circulation of managerial elites to White's (1992) concept of styles in social formation. This linkage implies that the circulation of managerial elites is more likely to occur under conditions of ambiguity and to involve emerging ideological and structural contests for control among various functions.
REFERENCES


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<tr>
<th>Mean</th>
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<th>7</th>
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<td>0.39</td>
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Table 1. Descriptive Statistics: Means, Standard Deviations, and Correlation Coefficients (N=277 succession events).
Table 2. Tabulation of Previous CEO’s Functional Backgrounds with New CEOs Functional Background.

<table>
<thead>
<tr>
<th>New CEO’s Background</th>
<th>Production/Technical</th>
<th>Marketing/Sales</th>
<th>Finance/Legal</th>
<th>Operations/Others</th>
<th>Total</th>
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<tr>
<td></td>
<td>(row %)</td>
<td>(column %)</td>
<td>(row %)</td>
<td>(column %)</td>
<td></td>
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<tr>
<td>Production/Technical</td>
<td>36 (47%)</td>
<td>6 (8%)</td>
<td>17 (22%)</td>
<td>17 (22%)</td>
<td>76 (100%)</td>
</tr>
<tr>
<td>Marketing/Sales</td>
<td>7 (13%)</td>
<td>24 (44%)</td>
<td>10 (18%)</td>
<td>14 (25%)</td>
<td>55 (100%)</td>
</tr>
<tr>
<td>Finance/Legal</td>
<td>6 (12%)</td>
<td>7 (14%)</td>
<td>12 (24%)</td>
<td>24 (49%)</td>
<td>49 (100%)</td>
</tr>
<tr>
<td>Operations/Others</td>
<td>19 (20%)</td>
<td>20 (21%)</td>
<td>25 (26%)</td>
<td>33 (34%)</td>
<td>97 (100%)</td>
</tr>
<tr>
<td></td>
<td>(row %)</td>
<td>(row %)</td>
<td>(row %)</td>
<td>(row %)</td>
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<tr>
<td>Total</td>
<td>68 (25%)</td>
<td>57 (21%)</td>
<td>64 (23%)</td>
<td>88 (32%)</td>
<td>277 (100%)</td>
</tr>
<tr>
<td>(row %)</td>
<td>(100%)</td>
<td>(100%)</td>
<td>(100%)</td>
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<td></td>
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## Table 3. Multinomial Logistic Regression Results.

<table>
<thead>
<tr>
<th>Models</th>
<th>(I) Strategic Contingency Model</th>
<th>(II) Basic Political Dynamics Model</th>
<th>(III) Political Dynamics Model with History</th>
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<tr>
<td></td>
<td>Prod. / Tech.</td>
<td>Mkt. / Sales</td>
<td>Finance / Legal</td>
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<tr>
<td>MDF</td>
<td>0.19 (-0.53)</td>
<td>0.26 (-0.37)</td>
<td>0.41 (-0.41)</td>
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<tr>
<td>Related</td>
<td>0.78* (0.33)</td>
<td>0.74* (0.25)</td>
<td>0.20 (0.28)</td>
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<tr>
<td>Diversification</td>
<td>0.42 (0.43)</td>
<td>0.43 (0.44)</td>
<td>0.45 (0.45)</td>
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<tr>
<td>Unrelated</td>
<td>0.15 (0.01)</td>
<td>0.05 (0.08)</td>
<td>0.56 (0.53)</td>
</tr>
<tr>
<td>Diversification</td>
<td>0.46 (0.49)</td>
<td>0.47 (0.54)</td>
<td>0.50 (0.53)</td>
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<td>Merger &amp; Divestiture</td>
<td>-0.33** (-0.27)</td>
<td>0.03</td>
<td>-0.30* -0.29*</td>
</tr>
<tr>
<td>Log of Assets</td>
<td>0.48*** 0.40**</td>
<td>-0.17</td>
<td>0.47*** 0.35*</td>
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<td>% Prd./Tech.</td>
<td>4.27*** -3.05</td>
<td>3.1*</td>
<td>3.56*** -1.95</td>
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<td>% Mkt./Sales</td>
<td>2.52 1.98</td>
<td>1.60 2.62 2.12 1.66</td>
<td>3.02** 2.34 1.96</td>
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<td>% Fin./Legal</td>
<td>0.47 3.04*</td>
<td>0.65 0.45 3.25* 0.57</td>
<td>0.53 3.93*** 0.48</td>
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<tr>
<td>Prev. Prd. (1st)</td>
<td>1.17*** -0.17</td>
<td>-0.89</td>
<td>1.33*** 0.31</td>
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<tr>
<td>Prev. Mkt. (1st)</td>
<td>-0.65 0.87*</td>
<td>-0.78</td>
<td>-0.62 0.93*</td>
</tr>
<tr>
<td>Prev. Fin. (1st)</td>
<td>0.26 -0.11</td>
<td>-0.45</td>
<td>0.24 0.07</td>
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<tr>
<td>Prev. Prd. (2nd)</td>
<td>-0.76 -0.31</td>
<td>-1.61***</td>
<td>0.46 (0.57)</td>
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<tr>
<td>Prev. Mkt. (2nd)</td>
<td>-0.14 1.46***</td>
<td>-0.73</td>
<td>0.53 (0.55)</td>
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<tr>
<td>Prev. Fin. (2nd)</td>
<td>0.16 0.53</td>
<td>-0.15</td>
<td>0.46 (0.57)</td>
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<tr>
<td>Constant</td>
<td>-5.96*** -3.69**</td>
<td>-0.26</td>
<td>-6.12*** -3.79**</td>
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</table>

Chi-Square (df) N
58.47 (24) 277
96.32 (33) 277
122.07 (42) 277

* p < 0.10
** p < 0.05
*** p < 0.001
Table 4. Chi-Square Contrast with the Full Model

<table>
<thead>
<tr>
<th>Dropped Independent Variables</th>
<th>Chi-square Contrast</th>
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<tr>
<td>1. MDF</td>
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<td>2. Related Divers.</td>
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<td>3. Unrelated Divers.</td>
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<td>4. Mergers &amp; Divestitures</td>
<td>9.91***</td>
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<td>5 Log of Assets</td>
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<td>6. Proportion of Production/Technical</td>
<td>8.52*</td>
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<td>7. Proportion of Marketing/Sales</td>
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<td>8. Proportion of Finance/Legal</td>
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<td>9. Previous Production/Technical CEO- (1st)</td>
<td>16.75***</td>
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<tr>
<td>10. Previous Marketing/Sales CEO- (1st)</td>
<td>10.59**</td>
</tr>
<tr>
<td>11. Previous Finance/Legal CEO - (1st)</td>
<td>2.18</td>
</tr>
<tr>
<td>12. Previous Production/Technical CEO- (2nd)</td>
<td>8.80*</td>
</tr>
<tr>
<td>13. Previous Marketing/Sales CEO- (2nd)</td>
<td>15.48***</td>
</tr>
<tr>
<td>14. Previous Finance/Legal CEO - (2nd)</td>
<td>1.32</td>
</tr>
</tbody>
</table>

* p < 0.10
** p < 0.05
*** p < 0.001
Table 5. Multinomial Logistic Regression Results: Collapsing Finance/Legal background with Operations/Others.

<table>
<thead>
<tr>
<th>Models</th>
<th>(I) Strategic Contingency Model</th>
<th>(II) Basic Political Dynamics Model</th>
<th>(III) Political Dynamics Model with History</th>
</tr>
</thead>
<tbody>
<tr>
<td>MDF</td>
<td>0.31</td>
<td>-0.47</td>
<td>0.39</td>
</tr>
<tr>
<td>Related</td>
<td>(0.38)</td>
<td>(0.38)</td>
<td>(0.41)</td>
</tr>
<tr>
<td>Diversification</td>
<td>(0.38)</td>
<td>(0.40)</td>
<td>(0.40)</td>
</tr>
<tr>
<td>Unrelated</td>
<td>0.32</td>
<td>0.25</td>
<td>0.21</td>
</tr>
<tr>
<td>Diversification</td>
<td>(0.32)</td>
<td>(0.46)</td>
<td>(0.45)</td>
</tr>
<tr>
<td>Merger &amp; Divestiture</td>
<td>-0.34**</td>
<td>-0.28*</td>
<td>-0.31**</td>
</tr>
<tr>
<td>Log of Assets</td>
<td>0.54***</td>
<td>0.43**</td>
<td>0.52***</td>
</tr>
<tr>
<td>% Prd./Tech.</td>
<td>(0.15)</td>
<td>(0.14)</td>
<td>(0.15)</td>
</tr>
<tr>
<td>% Mkt./Sales</td>
<td>3.21**</td>
<td>-4.26**</td>
<td>2.64</td>
</tr>
<tr>
<td>Prev. Prd. (1st)</td>
<td>(1.52)</td>
<td>(1.71)</td>
<td>(1.61)</td>
</tr>
<tr>
<td>Prev. Mkt. (1st)</td>
<td>2.05</td>
<td>1.18</td>
<td>2.19</td>
</tr>
<tr>
<td>Prev. Prd. (2nd)</td>
<td>(1.50)</td>
<td>(1.50)</td>
<td>(1.57)</td>
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<tr>
<td>Prev. Mkt. (2nd)</td>
<td>1.26***</td>
<td>0.10</td>
<td>1.37***</td>
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<tr>
<td>Constant</td>
<td>-6.48***</td>
<td>-3.30**</td>
<td>-6.56***</td>
</tr>
<tr>
<td>Chi-Square</td>
<td>47.33</td>
<td>79.87</td>
<td>94.15</td>
</tr>
<tr>
<td>(df)</td>
<td>(14)</td>
<td>(18)</td>
<td>(22)</td>
</tr>
<tr>
<td>N</td>
<td>277</td>
<td>277</td>
<td>277</td>
</tr>
</tbody>
</table>

- p < 0.10
- - p < 0.05
- - - p < 0.01
Figure 1. Change of CEO background over time: Forbes 500 in 1980