

*Rational Choice and Organizational Change*RAFAEL WITTEK AND ARJEN VAN WITTELOOSTUIJN

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*Introduction*

Since the beginning of the twentieth century, the number of profit-making enterprises has grown exponentially. In the United States alone, their number has risen from little more than 300 in 1916 (Wu 1974) to more than 5.8 million in 2004.<sup>1</sup> These and not-for-profit organizations are key agents in any modern society. Time and again, people have to deal with organizations, in their capacity of citizens with authorities, of consumers with enterprises, of employees with employers, and so forth. Organizations are not static entities—to the contrary. They often change: they merge, they move, they disappear, they downsize, they reorganize. From a sociological perspective, this raises two key questions: why do organizations change, and what are the consequences of such change? By now, there is a huge multidisciplinary literature dealing precisely with this dual question of the antecedents and consequences of organizational change. For example, economists have explored corporate governance, psychologists have studied the downsides of downsizing, and sociologists have focused on the institutional forces driving organizational change. Indeed, in business schools, organizational change has been looked at from a wide array of different perspectives: sometimes contradictory, but often complementary. But the sociological rational choice angle is not one of them. Organizational change is a topic that went largely unnoticed in the sociological rational choice tradition. It is not that sociologists are not interested in issues of organizational change—they are. Clear cases in point are the many organizational change analyses in institutional sociology (for example, DiMaggio and Powell 1983) and organizational ecology (for example, Hannan and Freeman 1977). In this chapter, we argue that the sociological rational choice approach could contribute much to our understanding of the antecedents and consequences of organizational change as well.

The further study of organizational change is promising, and highly needed. Notwithstanding the continuous flow of new research devoted to organizational change, important puzzles remain at the micro level of analysis. First, a

comprehensive contingency theory of organizational change is still missing (Van Witteloostuijn and Boone 2004): what types of organizational change are beneficial from the organization's perspective under which conditions, both in terms of environmental characteristics and organizational features? Second, the organizational change literature has a strong bias toward the micro level. It focuses on the antecedents or consequences of organizational change for individual organizations, or groups (industries or populations) of specific individual organizations. In this chapter, we offer a plea to shift attention to the macro level of analysis: what *societal* antecedents drive societywide organizational change patterns, how can *societal* organizational change trends over time be explained, and what might be the consequences of these trends for *society* at large? By way of steppingstone, we point to five trends that we think dominate modern capitalist societies.

The first trend relates to organizational size. We argue that at the top of the organizational size pyramid in modern capitalist societies, the trend is clearly toward bigger organizations. This is not to say that below this top smaller enterprises cannot and will not flourish—they do (Boone, Carroll, and Van Witteloostuijn 2002). And this is not to say that large organizations never downsize—they do (Cascio 2002). Rather, our argument is that *within* the top, say, 5 percent, *average* organizational size increases over time. This gives:

Trend 1 (size)—

*In modern capitalist societies, the average size of large commercial enterprises increases over time.*<sup>2</sup>

This can be illustrated with data from the Compustat data set, which includes annual report information of the world's largest commercial enterprises. In terms of the number of employees, the top 1 percent of enterprises employed, on average, about 204,000 people in 1993, which increased to approximately 264,000 in 2003. These figures are 87,000 (1993) and 108,000 (2003) for the top 5 percent, and 56,000 (1993) and 77,000 (2003) for the top 10 percent.<sup>3</sup>

The second trend involves commercial merger and acquisition (M&A) activities (Pryor 2001a,b,c; Andrade, Mitchell, and Stafford 2001; Brakman, Garretsen, Van Marrewijk, and Van Witteloostuijn 2006). M&As reflect a prominent route to organizational growth. As Andrade et al. (2001) and many others before and after them have observed, M&A activity comes in waves, with each next wave surpassing the previous wave in terms of the number of deals and the value involved. By engaging in M&A activity, an organization can grow quickly by amalgamating with another organization. This provides:

Trend 2 (amalgamation)—

*In modern capitalist societies, the frequency and magnitude of M&A activities in the world of large commercial enterprises increase over time.*

The third trend focuses on the rhythm of organizational change. Aggregate data on the frequency of organizational change, worldwide or per country, are not available. However, studies on specific types of change in specific national or international industries abound (Sorge and Van Witteloostuijn 2004, 2007), reporting an increasing organizational change frequency over time in modern industries (for example, Axelsson 2010). This suggests:

Trend 3 (change)—

*In modern capitalist societies, the rhythm of organizational change in the world of large commercial enterprises speeds up over time.*

The fourth trend relates to the work floor. The rhetoric is that so-called high-performance human resource management practices are increasingly introduced for the very reason of their positive impact on organizational performance (Pfeffer 1998). The evidence, though, goes against this claim (Knoke 2001). Rather, we witness:

Trend 4 (work floor)—

*In modern capitalist societies, the spread of high-performance human resource management practices in the world of large commercial enterprises does not increase over time.*

The fifth trend has to do with the total compensation packages for the chief executive officers (or more broadly, top executive managers) of large commercial enterprises. In modern capitalist societies, the corporate elite's income is clearly on the rise, and sharply so (Hall and Murphy 2003; Van der Laan, Van Ees, and Van Witteloostuijn 2008). This is true in terms of a series of elements of such remuneration schemes, from fixed salaries to option packages, as well as for the total sum (Frydman and Saks 2007). This results in:

Trend 5 (income)—

*In modern capitalist societies, the income of the corporate elite in the world of large commercial enterprises increases over time.*

Together, these five trends may well have far-reaching consequences for society. Two potential consequences are particularly worth mentioning. First, Trends 1 to 3 might imply that citizens face larger and larger commercial organizations, on average, which change more and more often. As a result, the cognitive distance between citizens and organizations increases over time. This triggers feelings of alienation. Modern large commercial enterprises transform into anonymous bureaucracies, with advertising-driven brand name images that are far remote from the organization's actual behavior. To the best of our knowledge, systematic evidence on this development is missing, although anecdotal "evidence" of citizens lost in the labyrinth of large commercial enterprises abounds. Second, Trends 4 and 5 in combination reveal a widening income gap between the corporate elite and the work floor. Indeed, income inequality in modern capitalist societies has increased ever since the 1980s (OECD 2007). Although country differences are substantial, an increase in inequality can be witnessed in all twenty countries. Clearly, a societal divide between the not-so-rich, on the one hand,<sup>4</sup> and the extremely rich, on the other hand, is emerging in modern (and transition) capitalist societies. Both alienation and divide are key sociological issues. Our logic suggests that both may well be driven by trends related to organizational change in the world of large commercial enterprises. If so, the study of organizational change is also important from a macro perspective, next to the traditional micro angle.

In this chapter, we will propose a sociological rational choice explanation, emphasizing that the corporate elite seeks to maximize power and income.

However, this cannot be more than a suggestion, as a sociological rational choice study of organizational change is, to date, nonexistent. Therefore, our argument comes in three steps. First we will discuss a series of rational choice models from other traditions than rational choice sociology—that is, neoclassical economics and organizational ecology. In both fields, formal models have been developed that inform our issue of the antecedents and consequences of organizational change. Then we will review the available evidence. Here we decided to focus on three issues: strategic change, corporate restructuring, and workplace transformation research in business and economics. Following this we develop the *contours* of what might become a sociological rational choice approach to organizational change. We will explore the extent to which the sociological rational choice approach may help to solve remaining puzzles, with an emphasis on macrolevel issues. In so doing, we will explore explanations of the five trends by focusing on the development of a sociological rational choice model of the behavior of the corporate elite in modern capitalist societies. Finally, we conclude with an appraisal.<sup>5</sup>

### *Economic Rational Choice Models of Organizational Change*

The explicit modeling of organizational change from a rational choice perspective is close to nonexistent. A related modeling literature that oftentimes implicitly has something to say on organizational change, though, can be found in organizational economics. The agency perspective is at the heart of what has become known as organizational economics, a blend of neoclassical microeconomics that models issues of organizational authority and hierarchy. By its very nature, organizational economics takes a rational choice perspective. The core of organizational economics' models tends to be economic agents and principals maximizing their private utility, often specified as monetary benefits  $B$  minus some costs  $C$ . However, from the current chapter's perspective, the extant organizational economics literature goes only halfway for two reasons. First, the organizational economics literature tends to ignore sociological perspectives, rather emphasizing "pure" economic calculus—that is, maximizing  $B$  minus  $C$  by each individual decision-maker, often in combination with profit at the level of the organization, being defined as a group of hierarchically linked principals and agents. Second, organizational change is not explicitly modeled, but is rather implicitly addressed by the comparison of different outcomes under different sets of conditions. In the context of the current chapter, a "quick-and-dirty" overview of this literature must suffice, just to make clear how our contribution relates to this modeling tradition. After we have done that, we will briefly discuss the few models inspired by organizational economics that do deal explicitly with the organizational change issue.

Roughly, the organizational branch of microeconomics models imperfect relationships between principals (say, owners or managers) and agents (say, managers or workers).<sup>6</sup> Assume a simple two-person setting, with a principal  $i$  and an agent  $j$ . Each party involved in the organization maximizes her private utility,  $U$ , which is  $B - C$ . For principal  $i$ ,  $B$  might entail firm profit and  $C$  monitoring activity; for agent  $j$ ,  $B$  may be her remuneration and  $C$  the cost of effort. An essential pair of assumptions is that (a) the utility function of

the principal  $i$  is different from the utility function of agent  $j$ , and (b) the principal  $j$  is not perfectly informed about agent  $i$ 's behavior and performance. For example, an agent would like, *ceteris paribus*, to minimize effort cost  $C_i$ , but principal  $j$ 's payoff is an increasing function of  $C_i$ . The modeling exercise then focuses on features of the organizational design (for example, a manager's span of control) and human resource policies (such as the bonus system) that maximize the principal's utility (for example, firm net profit). As a result of (a) conflict of interest and (b) information imperfection, all kinds of subtle trade-offs determine the payoff-maximizing organizational form and practices from the perspective of the principal.

By far the majority of the papers in this tradition focus on two organizational forms, inspired by Chandler (1962) and Williamson (1975), the M- and U-Form (see below for a more detailed description of the differences between the two forms). For instance, if the organization becomes larger, a multidivisional (M) form will outperform the unitary (U) form because, for example, the M-Form bypasses part of the information asymmetry bottleneck by introducing yardstick competition (for recent examples of this type of modeling, see, for example, Hart and Moore, 2005; Inderst, Müller, and Wärneryd 2007). In this modeling tradition, imperfection of information is key: transmission of information from agent to principal cannot be perfect (for example, Maskin, Qian, and Xu 2000), and may even be manipulated by the agent in the context of rent-seeking behavior (for example, Milgrom and Roberts 1990) and power struggles (for example, Rajan and Zingales 2000).

Of course, changes made by principals to improve effectiveness can pay off, at least for a while. In organizational economics, examples of such changes abound, all being based on comparative statics—that is, if a key parameter's value goes up or down, the “optimal” organizational form may switch from M to U or vice versa. After all, “[D]ifferent organizational forms give rise to different information on which incentives can be based” (Maskin, Qian, and Xu 2000: 363). For instance, after a comparative statics exercise like this, Aghion and Tirole (1995: 441) conclude that “[e]xogenous changes in the firm's environment induce a restructuring of its activities. For instance, growth raises the headquarters' overload and may force the firm to spin off activities to refocus on its core competencies . . . and to abandon some marginal activities.” However, in so doing, these organizational economics' models do *not* explicitly specify the costs and benefits of change as such. We know from the large organizational change literature that organizational change is anything but costless (see below for an overview of this literature). In fact, at the heart of the organization sciences literature is a debate as to whether organizational change is, on average, a good or a bad thing, depending upon the nature of change and the associated contingencies, with organizational ecology offering the counterpoint. A limited number of formal rational choice models have been developed to relate to precisely this issue: the “optimality” of organizational change as such. Here, by way of illustration, we briefly discuss two of them.

First, Van Witteloostuijn (1998) adopts an agency argument in the context of a traditional Cournot duopoly competition model, seeking to model organizational decline. Following the delegation games literature, as originally developed by Vickers (1985), Fershtman (1985), and Fershtman and Judd (1987),

he assumes that a principal-owner of firm  $i$  hires an agent-manager to run his firm, as does the principal of a rival firm  $j$ .<sup>7</sup> The principal-owner's objective is to maximize his firm's profit, whereas the manager's utility is a combination of profit and sales. In principle, this may introduce a conflict of interest. A manager's utility function is specified as

$$u = \pi + \alpha s, \quad (1)$$

where  $u$  is utility,  $\pi$  is profit,  $\alpha$  is a weight parameter, and  $s$  is sales. This  $\alpha$  can reflect either a manager's intrinsic preference for sales or an element in the manager's bonus contract. With  $\alpha$ , the issue of organizational change is introduced. That is, the lower  $\alpha_i$ , the higher the likelihood that the firm headed by manager  $i$  will downsize in response to a sales expansion by rival  $j$ . So a manager with a low  $\alpha$  is associated with downward organizational size flexibility, and a manager with a high  $\alpha$  with downward organizational size inertia. Modeling Cournot duopoly competition between  $i$  and  $j$  assuming  $0 \leq \alpha_i < \alpha_j$  reveals that the inert firm  $j$  outcompetes the flexible rival  $i$ . That is, organizational change is counterproductive, being associated with lower performance. This result offers formal support for organizational ecology's claim that organizational inertia is positively associated with the likelihood of organizational survival (Hannan and Freeman 1977), and that organizational change increases the likelihood of organizational mortality (Hannan and Freeman 1984). Under certain conditions, this "inertia outperforms flexibility" result holds true even if the inert rival  $j$  is less efficient than the flexible rival  $i$  (that is, if  $c_i < c_j$ , where  $c$  is unit production cost).

Second, Van Witteloostuijn, Boone, and Van Lier (2003) add to Van Witteloostuijn (1998) a model with production adjustment cost. Production adjustment cost is specified as

$$a = \beta \Delta q,$$

where  $a$  is adjustment cost,  $q$  is the quantity produced,  $\Delta q = q_t - q_{t-1}$ , and  $\beta$  is an adjustment cost parameter. Of course, if  $\beta > 0$ , changes in  $q$  are associated with inertia. With a higher  $\beta$ , adjusting the production volume is more costly, making the firm more inert. Assuming  $0 \leq \beta_i < \beta_j$  gives similar results as in Van Witteloostuijn (*ibid.*): the inert firm  $j$  (with the high  $\beta_j$ ) outperforms the flexible rival  $i$  (with the low  $\beta_i$ ) in a declining market. Of course, this model and the one of Van Witteloostuijn (*ibid.*) deal only with a specific type of organizational change: downsizing and upsizing. In this context, both models offer an explanation for Trend 1.

Where does all this leave the rational choice modeling of organizational change? We believe that three observations are worth making. First, organizational economics offers the toolkit to do precisely this: to develop formal rational choice models of organizational change. Second, the extant literature models organizational change only indirectly, with the exceptions of Van Witteloostuijn (*ibid.*) and Van Witteloostuijn, Boone, and Van Lier (2003). Third, none of the existing models is really sociological in nature. In essence, all are in the economic rational choice domain. The latter observation is particularly important, as it points the way to future sociological rational choice work in the area of organizational change. The key concept here is power.

Power certainly is part of organizational economics' habitat (Inderst, Müller, and Wärneryd 2007).<sup>8</sup> After all, the very idea of principal-agent relationships is that principals carry formal power over agents. This defines the authority associated with hierarchies. However, as we will argue below, a sociological rational choice perspective would treat power as an element of the principal's utility function, rather than as a boundary condition or a manipulation instrument. But before spelling out this logic in detail, we first offer an overview of the empirical literature on organizational change.

### *Trend Hypotheses and Stylized Facts*

The following review is limited to studies that explicitly or implicitly make use of rational choice reasoning. It focuses on three types of organizational change underlying the above-mentioned trends: strategic change, corporate restructuring, and workplace transformations. Issues concerning mergers and acquisitions (Trend 2) are at the core of the literature on strategic change; research on changes in organizational size (Trend 1) and the speed of change (Trend 3) can be found in the literature on corporate restructuring; the debate about the spread and consequences of "high-performance" human resource management (Trend 4) and increases in the remuneration of top managers (Trend 5) is part of the literature on workplace transformations.

#### STRATEGIC CHANGE

##### *Hypotheses*

Organizational strategies are "basic long-term goals and objectives of an enterprise and adoption of courses of action necessary for carrying out these goals" (Chandler 1962: 13). A key idea of (corporate) strategy research is that diversification can help to realize economies of scope.<sup>9</sup> All economic rational choice explanations of strategy choice agree that management will opt for (de-)diversification if the expected performance benefits outweigh the costs of implementing strategic change. They come to different predictions for the performance benefits of different types of diversification (for an overview of theories of strategic change, see Hoskisson and Hitt 1990), in particular a related versus an unrelated diversification strategy.

According to the *resource-based view*, diversification is a viable strategy if it builds on available surplus or underutilized resources (Penrose 1959), in particular managerial time and skills. By implication, there will be a trend toward related rather than unrelated diversification, because it allows the firm to build optimally upon existing capabilities and exploit complementarities provided by newly acquired resources. In addition, unrelated diversifiers such as conglomerates will also perform worse because the head office consumes too many of the valuable resources.

*Agency* and *transaction cost theory* both predict an increase of both related and unrelated diversification through time. Transaction cost theory sees synergy benefits as the major rationale for diversification. By creating an internal capital market, a firm can allocate capital more efficiently than it could on the external capital market, as long as transaction costs with other firms are higher than transaction costs within the firm (Williamson 1975). Since there are limits to

the exploitation of synergy benefits even in firms with related diversification—*intrafirm exchanges will be impeded by communication problems and incentive distortions due to intrafirm competition—related diversification will not yield performance benefits.* *Agency theory* assumes that market and firm imperfections in combination with managerial motives play a role in diversification decision-making. It offers three major rationales for diversification, all of them based on the assumption that managers will pursue their self-interest at the expense of stockholders (Martin and Sayrak 2003: 40). First, managers with large firm-specific investment in human capital have an incentive to diversify in order to protect their investment and make their position more secure (Shleifer and Vishny 1990). Second, managers might attempt to reduce firm risk through diversification (Amihud and Lev 1981). Third, since diversification usually results in an increase in firm size, and managerial pay tends to increase with the size of the firm (Jensen and Murphy 1990), managers have an incentive to diversify their firms.

Agency and transaction cost approaches also provide a rationale for the massive refocusing trend since the 1980s. Pointing to government policies as important external constraints, transaction cost theory sees refocusing as triggered by deregulation in many industries. During the 1980s, global competition began to increase considerably, and tax and antitrust policies were relaxed, facilitating mergers in related businesses (Hoskisson and Hitt 1990, 1994). Consequently, firms will get rid of units that are not related to their core business. Agency theorists argue that diffuse ownership increased the chances of governance failure: lacking appropriate control, managers used available financial assets to expand, but without increasing firm value. The resulting overdiversification was corrected during the 1980s.<sup>10</sup>

#### *Stylized facts*

Overall, for large firms, the available evidence shows a trend toward increasing diversification through time. This holds for the United States and other industrialized countries alike (Itoh 2003; Claessens et al. 2003; Whittington and Mayer 2000). For the United States, four phases of merger and acquisition waves need to be distinguished (Golbe and White 1993; Shleifer and Vishny 1990). They coincide with changes in antitrust legislation, supporting the transaction and agency cost reasoning about the importance of external constraints. The last wave started in the 1980s, when the Reagan administration relaxed antitrust enforcement. A massive refocusing movement started: management increasingly dropped the firm-as-portfolio philosophy and concentrated on their “core competencies.” This resulted in a trend toward divestitures of unrelated businesses and acquisitions within the same industry (refocusing). This wave lasted until the early 2000s (Pryor 2001d). In 1992, two-thirds of Fortune 500 companies were actively involved in five or more distinct business lines (defined by four-digit SIC codes) (Montgomery 1994). And between 1986 and 1990, about 15 percent of the Fortune 500 firms made conglomerate acquisitions (Davis, Diekmann, and Tinsley 1994). In fact, in the period between 1990 and 1996, about 50 percent of employment in the United States was provided by diversified firms, which also owned about 60 percent of the total assets of publicly traded firms (Martin and Sayrak 2003: 38). Mergers



and acquisitions reached \$2.3 trillion in 1999, with a 20 percent average annual growth rate in the number of mergers between 1985 and 1999.

Studying diversification in France, the UK, and Germany from 1983 to 1993, Whittington and Mayer (2000) conclude that these countries, by and large, support the trend hypothesis, postulating a gradual increase of diversified firms. Overall survival rates of related diversifiers and conglomerates do not differ significantly: unrelated diversifiers are not poor performers. In all three countries and across both time periods, tightly integrated, related diversifiers show consistently superior financial returns. This finding comes closest to the predictions made by the resource-based view.

In sum, the available evidence, by and large, supports the postulated trend toward amalgamation (Trend 2). On a general level, economic rational choice theories of strategy choice are able to account for this trend. However, as soon as different types of diversification strategies are distinguished, economic rational choice theories produce contradicting claims. More specifically, the increase and good performance of unrelated diversifiers like conglomerates challenge the resource-based view.

#### CORPORATE RESTRUCTURING

We distinguish three types of corporate restructuring: changes in organizational form, size, and structure (Johnson 1996). These three dimensions are highly correlated, and are seen as elements of organizational complexity (Hall and Tolbert 2005: 27–62). In the introduction, we proposed that the average size of large commercial enterprises increases over time (Trend 1). Organizational size has several dimensions (Kimberly 1976) and should therefore be conceived broadly. We focus on two dimensions of size: the number of employees, and the number of divisions or units of a firm.<sup>11</sup> The latter is an aspect of organizational form. It reflects horizontal differentiation, and is also a measure of organizational complexity.

##### *Change in organizational form*

*Hypotheses.* The term *restructuring* is usually used to denote the addition or deletion of divisions from an organization. Change in structural-relational form comes in four types, depending on the degree of centralization of (a) strategy and (b) operations.

In the *Functional* or *Unitary Form (U-Form)*, both strategy and operations are centralized. The heads of functionally defined departments, like sales, marketing, or production, are responsible for the operations in their departments, and at the same time are members of the top management team, where they are involved in formulation of strategy for the whole company (Rumelt 1974: 33). The major characteristic of the *Multidivisional Form (M-Form)* is the centralization of strategy and the decentralization of operations: the heads of the divisions are not involved in the process of strategy formulation. The latter is done by a group of top managers at the headquarters, who are supposed to ensure the survival and growth of the company as a whole. The  *Holding Form (H-Form)* or conglomerate consists of almost completely autonomous subunits, with very little management and strategic control from the center: both strategic decision-making and operational control are decentralized. Conglomerate

mergers, for example, are defined as any purchase in which both the acquiring and target firms operate in unrelated industries (Knoke 2001: 118).

Why do firms change their form, and which trends can be expected? Economic rational choice accounts offer two explanations. According to *transaction cost approaches*, the structural-relational M-Form is likely to follow on the strategic choice of a company to diversify. As Chandler argues, once a firm had diversified, structured reforms were necessary in order to enable a more efficient use of resources (“structure follows strategy”). Firm strategies involving high-volume production, vertical integration of technically complex functions, geographic dispersion, and entry into diverse new product lines put pressure on management in the classical U-Form, and can be carried out more efficiently within the M-Form. Moreover, the U-Form will suffer cumulative loss effects, as Williamson argues (1975: 133). Increasingly diverse and complex decision-making by top management results in monitoring, coordinating, and control problems. Functional managers in the top management team favor their own division’s short-term interests, losing sight of the more general organizational goals. Separation of strategy and operation solves this problem, reduces transaction costs, and relieves managers from information and decision overload. The so-called M-Form hypothesis states that “the organization and operation of the large enterprise along the lines of the M-Form favors goal pursuit and least-cost behavior more nearly associated with the neo-classical profit maximization hypothesis than does the U-Form organizational alternative” (Williamson 1970: 134).<sup>12</sup> According to Chandler, the H-Form does even worse than the U-Form, since top management in the H-Form tends to be “blind, weak, confused or partisan” (Whittington and Mayer 2000: 70): headquarters lack adequate information systems to monitor (financial) performance of its subsidiaries, and the top managers of the different business units of the holding tend to push the interest of their units rather than pursue the welfare of the holding as a whole. Consequently, rational choice scholars consider both types of holdings as traditional phenomena, which came into being mainly as a response to severe antitrust policies.

Hence, given the superior performance of the M-Form, the relative proportion of divisionalized and diversified firms in a country should increase through time, and the decision to implement a multidivisional structure should be taken after the decision to diversify. The strong version of this hypothesis assumes that this trend should hold independently of institutional context. It is a universalistic statement, predicting that, in the long run, organizations all over the world will converge toward adopting this superior M-Form.

The second explanation is rooted in the *principal-agent approach*. Unlike transaction cost explanations, it emphasizes managerial motives and information asymmetries rather than efficiency advantages as the major trigger behind the spread of the M-Form.<sup>13</sup> According to agency theory, the rise of the M-Form is due to shifts in the power distribution between owners, financial institutions, and top managers. Whereas at the beginning of the twentieth century power rested mainly with owner-entrepreneurs and families, the demand for capital resulting from expansion into wider national and international markets resulted in a gradual shift of power toward large numbers of shareholders, and consequently to a dispersion and weakening of the position of owners.

This enabled top management to use their information advantage for seizing effective control of the company and its strategies. Similarly, banks and lending institutions increasingly gained in power.

From an agency and resource dependence perspective, the M-Form hypothesis needs to be refined and restricted in scope. For example, one prediction following from this perspective is that firms in which ownership is concentrated in the hands of families or banks will be less likely to divisionalize than management-controlled companies (Palmer et al. 1987). Family-based coalitions can more easily control the day-to-day operations of a (local) U-Form, compared to the operations in an (often geographically dispersed) M-Form. Family ownership also facilitates the implementation of strategies enhancing the realization of short-term profits for the owners, because a small coalition of family owners can effectively limit management's discretion to engage in long-term strategies designed to increase market share (Knoke 2001: 105). With regard to bank-controlled firms, it has been argued that banks tend to discourage divisionalization because the resulting centralization would negatively affect the demand for financial expertise provided by banks (Palmer et al. 1987).

*Stylized facts.* Already by the early 1920s, a handful of large U.S. corporations—General Motors, Du Pont, Standard Oil of New Jersey, Sears Roebuck—started to diversify their production and to switch from a unitary functional to an M-Form (Chandler 1962). These changes in strategy (diversification) and structure (divisionalization) marked the birth of the Multidivisional Firm, which soon would grow to become the dominant type of business organization in the industrialized world. Whereas only 1.5 percent of the one hundred largest U.S. firms had adopted the multidivisional form in 1929, that figure has risen to 84.2 percent in 1979 (Fligstein 1985). Further analyses (ibid.: 386) also confirm Chandler's argument that industries where product-related strategies dominate (for example, machinery, chemical, and transportation industries) would adopt a multidivisional form earlier than vertically integrated industries (such as mining, metal, lumber and paper, and petroleum industries). Although starting later, a similar trend toward diversification and divisionalization can be observed for France, Germany, and the United Kingdom (Whittington and Mayer 2000). The M-Form is less prevalent among the largest Japanese firms, where it was adopted by only 59.8 percent of the largest firms in 1980 (Itoh 2003: 54). The overall picture emerging from these empirical investigations seems to support the M-Form hypothesis: until the 1980s, there was a clear trend toward divisionalization. The spread of the M-Form slowed down during the 1980s, when many multidivisional firms started to "refocus" their businesses by divesting some of their divisions. Estimates mention that in the period between 1981 and 1987, 20 to 50 percent of the Fortune 500 firms refocused, compared with 1 percent during the 1960s and 1970s (Markides 1995). This wave of corporate restructuring aimed at downscoping and dediversifying. It resulted in 55,000 mergers and acquisitions worth about \$2 trillion and 2,540 leveraged buyouts worth \$297 billion. In 1986 alone, firms completed more than 1,200 divestitures worth \$60 billion (Jensen 1993).

Despite all this supportive evidence, some caution is necessary with regard

to the efficiency argument underlying the M-Form hypothesis. Freeland's detailed reconstruction (2001) of the implementation of the M-Form at General Motors—one of the textbook cases for the M-Form hypothesis—shows that GM's CEO Sloan deliberately violated the fundamental principles of the multidivisional form by blurring the boundaries between strategy and operations. This was also GM's most successful period, though it sparked intensive conflict with corporate owners, who favored a stricter separation between strategy and operations. Freeland shows that the implementation of the M-Form depends on the relative power distribution between management and owners. It also raises some doubts about the assumed performance advantages of the multidivisional form, since the decentralized structure it implies may undermine cooperation and lead to organizational decline.

In sum, though the available evidence tends to support the trend hypothesis concerning the increase in the number of multidivisional firms, it still remains unclear to what degree multidivisional firms comply to their key principles (for example, separation of strategy and operations), and to what degree their rise is due to efficiency advantages rather than the successful management of internal power struggles.

#### *Changes in organizational structure*

*Hypotheses.* The majority of the literature on corporate restructuring addresses firm-level activities, such as divisionalization through mergers and acquisitions, as they were discussed in the previous section. Changes in organizational structure—that is, internal reorganizations like delayering—represent the most recent and least explored domain in the field of research on organizational change.<sup>14</sup>

*Delayering* is defined as “planned vertical compression of managerial levels of hierarchy, involving the wholesale removal of one or more layers of managerial or supervisory staff from the organization's payroll” (Littler, Wiesner, and Dunford 2003). The *depth* of delayering refers to the number of levels—intermediary positions between a CEO and the lowest managers—that are cut out. The *breadth* of delayering captures changes in the span of control of the CEO, and is defined by the decrease in the number of positions directly reporting to the CEO (Rajan and Wulf 2006). Rajan and Zingales (2001a) provide a formal model of internal organizational structure (see also Hart and Moore 2005, for a general model of optimal hierarchical structure). More generally, rational choice theories of delayering point to four possible reasons for firms flattening their hierarchies (Rajan and Wulf 2006).

First, increasing competition in product markets pressures firms toward quicker decision-making. This can be achieved by cutting down layers in the hierarchy, because delegating decision authority further down the hierarchy would imply loss of top management control. A related argument is that competition increases the complexity of decisions. Tall hierarchies are less suited to handle complex decisions, are likely to result in distorted upward information flows, and reduce managers' incentives to collect information.

Second, agency theorists argue that inadequate monitoring of management resulting from failing governance mechanisms resulted in empire building and hiring of middle managers. With the number of small-scale shareholders

decreasing and large institutional shareholders becoming more important since the 1980s, governance and control of management improved, forcing top management to eliminate “unproductive” layers of middle managers.

The third possible reason for delayering is changes in information technology. Previous theorizing produced contradicting claims on the impact of information technology. One line of reasoning suggested that information technology allows top managers to bypass middle managers in both upward and downward communication. Since middle managers are assumed to have mainly informational roles, in this scenario they become increasingly obsolete. A second line of reasoning posits the opposite. Here, the role of the middle managers is not restricted to an information broker, but extends to important coordination, interpersonal, and decision tasks. Changes in information technology will increase organizational complexity and the need for coordination, thereby resulting in an increase in the number of middle managers.

Sociological research points to the fourth possible reason for delayering: the neglected role of intraorganizational power relationships. Pinsonneault and Kraemer (1997) argue that a decrease in the number of middle managers is contingent upon the degree of centralization of decision authority over computing and organizational issues in general. Where decision authority is centralized, information technology will result in a decreasing number of middle managers. The argument rests on a reinforcement politics perspective, which assumes that the dominant coalition in an organization will use information technology to reinforce its own interest. The dominant coalition can be formed by different kinds of actors, such as members of the managerial or technocratic elite. Maintaining and enhancing efficiency is assumed to be (among) top management’s interests. Where decision control is centralized in top management, middle management will fulfill mainly routine, informational, and highly structured tasks. Hence, top management has an incentive to use information technology to replace middle managers. Where decision control is decentralized, middle managers’ role is more complex, and will be more difficult if not impossible to computerize. Information technology will, however, enable middle managers to perform their tasks more efficiently, leaving them more room to dedicate themselves to more complex decision-making, and to improve their position in the organization.

In sum, the overarching trend hypotheses with regard to changes in organizational structure states that power will tend to be concentrated at the top of the organization, which among others should lead toward an overall decrease of middle-management functions.

*Stylized facts.* For the United States, delayering was studied by Rajan and Wulf (2006). Based on a sample of more than three hundred publicly traded firms over the years 1986 to 1998, covering a variety of industries, their overall conclusion is that “firms are becoming flatter, the CEO span is broader, intermediate managers are being dispensed with, and divisional managers are getting more authority, higher pay, and greater incentive pay as they come closer to the CEO” (ibid.: 772). They find strong evidence that the depth of hierarchies decreased (by approximately 25 percent, from an average of 1.58 managers between the CEO and the division manager in 1986, to 1.18 in

1998), and the span of control of CEOs increased (by roughly 50 percent, from an average 4.46 in 1986 to 6.79 in 1998). Their statistical tests rule out several potential alternative explanations, such as the argument that these effects could be the result of profit center responsibility being taken away from smaller units, firms becoming bigger through natural growth or mergers, or creation of new positions.

Similar conclusions could be drawn by a study of delayering in Australia, New Zealand, and South Africa (Littler, Wiesner, and Dunford 2003). In sum, the available evidence on delayering for several countries supports the claim of a power shift toward the top of the organization.

#### *Changes in organizational size*

*Hypotheses.* Changes in firm size are the third major element of corporate restructuring, and Trend 1 postulates that the average size of large commercial enterprises is on the rise. Although models of firm size changes cover both increases and decreases in headcount, downsizing received disproportionately more attention than upsizing (for reviews, see Datta et al. 2010; Gandolfi and Hansson 2011). Downsizing is defined as “a strategy implemented by managers that affects the size of the firm’s workforce and the work processes used” (Freeman and Cameron 1993: 12). Downsizing is intentional, involves reductions in personnel, attempts to improve efficiency or effectiveness, and usually affects work processes. Downsizing differs from organizational decline, nonadaptation, growth-in-reverse, and layoffs (Freeman and Cameron 1993). Reductions in firm size can be brought about by a variety of strategies, ranging from natural attrition and involuntary redeployment to layoffs with or without outplacement assistance (Greenhalgh, Lawrence, and Sutton 1988; Wagar 1997).

Probably the most comprehensive theoretical and empirical study on down- and upsizing has been carried out by Baumol, Blinder, and Wolff (2003). Their major argument is that technological change favors smaller enterprises, and that faster technological innovation will lead to more labor market “churning” (that is, the replacement of lower skilled by higher skilled employees). A model of firm size needs to be able to account both for down- and upsizing. They predict different patterns for different industries, for two reasons. First, “technological change can sometimes promote larger average firm size and at other times promote smaller firms” (ibid.: 8). Second, they argue that average firm or establishment size will co-vary with total employment size in an industry: “[W]hen industries grow (or shrink), they tend to grow (or shrink) more by increasing (or decreasing) firm size than by adding (or subtracting) firms” (ibid.: 123).

In the manufacturing sector, technological developments will instigate a regression to the mean—that is, small firms will upsize and large firms will downsize. The advances in information technology and computerization significantly increased the flexibility in the production process—for example, by facilitating switches in built-to-order production and “mass-customization.” Standardization and long production runs—once the advantage of large firms—no longer were necessary preconditions for cost-efficient production. With the resulting decrease in the profitability of mass production, the advantages of large firms in the manufacturing sector started to dwindle, too (ibid.: 78).

In the retailing sector, technological developments made *larger* retailing firms more profitable than they had been before, because information technology reduces coordination, communication, and record-keeping costs. Smaller retailing firms, therefore, will gradually lose the cost advantages they had over larger firms because of their lower coordination and communication costs.

The overall trend resulting from these two opposing developments should be firm sizes regressing to the mean: large firms getting smaller while small firms increase in size.

*Stylized facts.* With regard to changes in organizational size, the general trend hypothesis posits a tendency of firms to become larger. This claim contradicts common wisdom, according to which the past decades represent the age of downsizing. For example, a frequently cited *New York Times* feature, published in 1996, reports that since 1979, 43 million jobs were eliminated, with yearly job loss rates reaching a peak of 3.4 million in 1992. Downsizing indeed has been common since 1967 (Baumol, Blinder, and Wolff 2003), and has intensified since the 1980s, when many firms started to refocus and dedivisionalize. In the United States, an estimated 10 million employees lost their jobs as a result of downsizing operations in the 1980s and early 1990s (Budros 1999: 69).

Whereas these figures seem to support the popular credo on the decades of downsizing, a completely different picture emerges from research that simultaneously studies down- and upsizing. Baumol, Blinder, and Wolff (2003: 119–30) report that downsizing took place mainly in the manufacturing sector in the period from 1972 to 1992, with the exception of the period between 1982 and 1987. The trade and service sectors upsized during the past forty years, whereas there is a trend for neither up- nor downsizing in the remaining sectors (construction, mining, and transport). Their econometric analysis on the determinants of downsizing yields the following general picture (*ibid.*: 133). First, as predicted, changes in industry total employment correlate highly with firm size, and this pattern is most pronounced in the manufacturing sector, where 87 percent of employment changes result from changes in firm size, compared with 55 to 58 percent in other industries. Second, since 1967, technology indeed favored smaller businesses. Third, firms experiencing a fall in profits are more likely to downsize. Fourth, incidence of downsizing increases with intensification of foreign competition on export markets. In sum, the data lend support to their major hypotheses, according to which the major short-run determinant of downsizing is industry growth or decline, whereas technological change exerts the major long-term influence on changes in firm size.

Baumol, Blinder, and Wolff's empirical investigation provides one of the rare occasions in which upsizing is modeled. They find that the set of factors explaining downsizing in the manufacturing sector also explain upsizing in the retail and service sector, though in some cases with the signs of the effects pointing in the opposite direction (*ibid.*: 181–93). More specifically, they draw four major conclusions. First, the more rapid industry growth (as measured by total employment), the higher the degree of upsizing. Second, the stronger competition with imports in an industry, the more likely upsizing. Third, the more export-oriented an industry, the less likely firms will upsize. Finally, the lower the profitability of a firm, the more likely upsizing becomes.

The overall picture emerging from empirical research on firm size changes is that downsizing tends to be restricted to the manufacturing sector, whereas firm size in other sectors tends to increase.

#### WORKPLACE TRANSFORMATION

*Hypotheses.* High-performance human resource management (HRM) is one of the managerial buzzwords of the past decade. The term describes a bundle or cluster of interrelated workplace practices with the common denominator that they increase the involvement and intelligent effort of employees (Appelbaum and Batt 1994; Baron and Kreps 1999). Although there still is no agreement in the literature about which types of practices should be considered as belonging to the bundle of high-performance human resource management practices (Delaney and Huselid 1996; Sun, Aryee, and Law 2007), the following key aspects are generally considered as being part of it (Appelbaum and Batt 1994: 57): “[T]he use of flexible technologies; some form of worker participation or teamwork; substantial worker education and training; the flexible deployment of workers; a commitment to employment security; a narrowing of the gap between workers and managers, as evidenced by education levels and worker involvement in managerial decision making; quality consciousness; and an active role for unions and representative employee committees in achieving performance gains in the production process.”

The rationale behind adopting a related set of practices rather than single practices only is that they mutually support and enhance each other's functioning, thereby helping to resolve free-rider problems (Kandel and Lazear 1992), focus attention to tasks that are important for performance but difficult to measure (Baker, Gibbons, and Murphy 1994), and elicit information of employees (Milgrom and Roberts 1995). The formal basis behind the idea of (Edgeworth) complementarity was elaborated by Milgrom and Roberts (1990, 1995). In their words, complementarity is given if “doing more of one thing increases the returns to doing (more of) the others” (Milgrom and Roberts 1995: 181). A formal model of the adoption of HRM bundles or clusters has been developed by Ichniowski and Shaw (1995), who conceive the adoption as an investment decision into a managerial innovation.

In sum, due to their assumed superior incentive and motivational effects, there should be a general trend toward the adoption of high-performance human resource management practices over time, and firms that introduced such practices should outperform organizations that do not have such practices, or introduced only some, but not all of its elements. Our Trend 4 hypothesis contradicts this argument.

*Stylized facts.* For the United States, the 1996 National Organization Study, based on 1,002 establishment interviews (Kalleberg et al. 2006) gives insight into the distribution of high-performance HRM practices in for-profit, public, and nonprofit organizations. They distinguish three types of practices: team features, multiskilling, and incentive practices. Teamwork for core workers is practiced in about 40 percent of all establishments, ranging from 37 percent in for-profit establishments to more than 60 percent in nonprofit organizations. Of the three types of incentive practices investigated (group incentives, pay



for learning new skills, and profit sharing or bonus programs), the latter was practiced by one-third of the for-profit organizations, but only by 13 percent of public and 2.6 percent of nonprofit organizations. Finally, of the three multiskilling practices (cross-training, job rotation, and transfer to other job family), cross-training is clearly the most used practice, with two-thirds of the for-profit and public organizations, and 76 percent of nonprofit ones making use of it. Sectoral differences in the adoption of high-performance HRM were found for the use of self-directed teams and offline committees, which were more prevalent outside the for-profit sector, and the use of output-related incentives, which were more frequent in for-profit organizations. No sectoral differences were found for multiskilling practices.

For Europe, data from the Cranet-Survey (Brewster, Mayrhofer, and Morley 2004)<sup>15</sup> show a clear decrease in the proportion of employees in the HR department, and clear increases in the percentage of annual salaries spent on development and training, the incidence of management communication of financial performance and firm strategy to employees, and the use of performance-related and variable elements of compensation systems. Somewhat weaker evidence was obtained for the use of flexible working practices (for example, part time work) with statistically significant increases in seven—mostly Northern European—countries, and about one-third of the countries making less use of such practices. A comparative analysis of changing human resource management practices in China, Japan, and South Korea (Rowley, Benson, and Warner 2004) shows that HRM practices tend to resemble the Western HRM model rather than exhibiting a specifically Asian version.

Taken together, the available empirical evidence indicates that high-performance HRM practices still are far less common than one would expect based on their assumed performance-enhancing effects. Several empirical studies based on surveys came to the conclusion that the number of firms using more than one high-performance HRM practice is “surprisingly low” (Appelbaum and Batt 1994: 63).<sup>16</sup> Knoke (2001: 194) concludes that “high performance work practices were neither alternatives to conventional bureaucracy nor incompatible with its survival. Indeed, establishments deploying elaborate bureaucratic personnel systems seemed more prone to implement innovative work practices than were workplaces with absent or weakly developed FILMs [Firm Internal Labor Markets] and formalization.”

Management’s reluctance to adopt high-performance HRM might also be due to uncertainty with regard to their expected performance effects, which actually seem to be far less evident than the optimistic conclusion prevailing in the literature. Here, the current wisdom on performance effects is that “a large majority of published studies find an association between HR practices and firm performance, regardless of whether they are cross-sectional or longitudinal, whether conducted at establishment or company level, whether based on strong performance data or subjective estimates, whatever based on, whatever operational definition of HRM is used and wherever they are conducted” (Guest et al. 2003: 294). Recent critics are less convinced, pointing to a variety of serious shortcomings in previous research: the majority of studies are limited to the United States, do not distinguish between industries (Guest et al. 2003), do not control for reverse causality (Wright et al. 2005), use different measures

of HRM practices, and do not disentangle individual HRM practice effects from combined effects (Wall and Wood 2005). This skepticism receives further support from several recent large-scale and meta-analytic studies with true predictive longitudinal research designs. All of them cast serious doubt on an overly positive conclusion about performance effects of high-performance HRM (Guest et al. 2003; Wall and Wood 2005; Wright et al. 2005). Based on their meta-analysis of twenty-five studies, Wall and Wood (2005: 454) conclude that “it is premature to assume that HRM initiatives will inevitably result in performance gains, either in all situations or even where deemed appropriate by contingency arguments.” Another review based on sixty-six studies of large food service corporations in the United States concludes that “results provide just as much support for the proposition that performance causes commitment and HR practices as it does the reverse” (Wright et al. 2005: 412).

Wright et al.’s findings mirror the results of an earlier longitudinal study, based on a sample of 366 companies in the UK (Guest et al. 2003). Using both subjective and objective performance measures, and applying both cross-sectional and longitudinal tests, their findings point toward reverse causality—that is, high profitability increasing the likelihood for high-performance HRM, rather than vice versa. The point that all these recent critics make is that available research lacks sufficient rigor to convincingly show that the introduction of high-performance HRM in a firm leads to a *subsequent increase* in performance (Wright et al. 2005: 410).

To sum up, as postulated in Trend 4, the empirical evidence does not show an increase in the implementation of high-performance HRM practices.

### *A Sociological Rational Choice Theory of Organizational Change*

Economic rational choice models overemphasize micro or mesolevel antecedents and consequences of organizational change, as witnessed by the extant business, economic, and sociological literatures. In this section, we develop a complementary sociological macro perspective. Key is, we believe, to introduce a “classic” sociological concept: power. As our review of the empirical literature has shown, the focus on efficiency within current economic rational choice explanations of organizational change, in particular in the context of transaction cost economics, is incomplete. The reviewed empirical literature contains some evidence that power issues frequently interfere with or dominate over efficiency-related motives. Some of the research inspired by agency theory already points to the potential role of power in a theory of organizational change: if control fails, managers can exploit information asymmetries, and can design strategic and structural change for the sake of empire building.

The starting point is a sociological rational choice specification of a top manager’s utility function. An example is

$$U_i = f_U(I_i, P_i), \quad (2)$$

where  $U$  denotes utility,  $I$  income,  $P$  power and  $i$  individual manager  $i$ , and with  $\partial U_i / \partial I_i > 0$  and  $\partial U_i / \partial P_i > 0$ .<sup>17</sup> With income  $I$ , we add a utility component that is well studied in managerial economics, with agency theory and delegation games as two modern off-springs (see above). With power  $P$ , we

introduce a key concept from sociology. Although power is related to financial economics' concept of hubris,<sup>18</sup> we move beyond the current state of the art by introducing this very sociological aspect of human motivation and behavior in the context of communities as an element of the (top) manager's utility function. In isolation, power is a nonissue. In interaction with other people in social communities, such as commercial enterprises and society at large, power may well be a utility-providing component in and of itself. The acquisition of status and prestige has been identified as an important instrumental goal for the production of social well-being (see Lindenberg's contribution on social rationality in this volume), and formal power is one of the major means to produce status. This argument is a well-established insight in sociology, but not so in economics (but see Niskanen 1971; and Frank 1985 for insightful exceptions). Hence, utility function (2) clearly reflects an example of *sociological* rational choice modeling.

To make our illustration more concrete, the following additive utility function<sup>19</sup> can be specified:

$$U_i = \alpha_i I + \beta_i P, \text{ with } \alpha_i \text{ and } \beta_i > 0. \quad (3)$$

A manager derives utility from both income and power. The extent to which one dominates over the other is reflected in the weight parameters  $\alpha_i$  and  $\beta_i$ : if  $\alpha_i > \beta_i$ , the income motive is dominant; but if  $\alpha_i < \beta_i$ , power is more important. Moreover, either managerial heterogeneity ( $\alpha_i, \beta_i \neq \alpha_j, \beta_j$ ) or homogeneity ( $\alpha_i, \beta_i = \alpha_j, \beta_j$ ) can be assumed (with  $i \neq j$ ). Already this simple managerial utility function (3) implies a series of interesting research questions. What drives the relative importance of income vis-à-vis power? To what extent can managerial heterogeneity be observed in practice? What can explain differences across settings such as countries and industries? How does competition evolve in different income-power "regimes"?, and so forth. For the sake of brevity, we refrain from reviewing the business, economic, psychological, and sociological literatures that relate to these questions, but rather suffice with references to two observations. First, particular types of managers tend to be selected into top positions precisely because they like to execute power (see, for example, Boone, van Olffen, Van Witteloostuijn, and De Brabander 2004). Second, although the corporate governance regimes within which top managers have to operate vary from one country to the other, issues of power are central to all of them (see, for example, Aguilera and Cuervo-Cazurra 2004).

By way of further illustration, we would like to set a few additional steps in the sociological rational choice modeling exercise. For one, we assume that income is positively affected by power: the powerful are more successful in their rent-seeking behavior (Acemoglu and Robinson 2008). This suggests an income-power function

$$I_i = f_p(P_i), \quad (4)$$

with  $\partial I_i / \partial P_i > 0$ . Again, an example of a simple specification is

$$I_i = \gamma_i P_i, \text{ with } \gamma_i > 0. \quad (5)$$

Secondly, power is positively associated with organizational size: the larger the organization a CEO is heading, the more powerful his or her reputation in the

outside world. This gives the size–power function

$$P_i = f_s(S_i), \quad (6)$$

where  $S_i$  is the size of the organization headed by top manager  $i$ , and with  $\partial P_i / \partial S_i > 0$ . Again, a straightforward specification is

$$P_i = \eta_i S_i, \text{ with } \eta_i > 0. \quad (7)$$

Substituting Eqs. (5) and (7) into Eq. (3) produces

$$U_i = \lambda_i S_i, \text{ with } \lambda_i = \alpha_i \gamma_i \eta_i + \beta_i \eta_i. \quad (8)$$

Since  $\alpha_i$ ,  $\beta_i$ ,  $\gamma_i$ , and  $\eta_i$  are all positive,  $\lambda_i > 0$ . Hence, a top manager's utility is positively associated with organizational size, which offers a straightforward sociological rational choice explanation for Trend 1. The implications of Eqs. (1) to (6) are summarized in the twofold Proposition 1.

Proposition 1 (size, power, and income):

*(a) Top managers of large organizations have more power than those heading small organizations, and (b) top managers of larger organizations earn higher incomes than their counterparts in smaller organizations.*

Indeed, ample evidence indicates that organizational size is the key determinant of a top manager's income (see, for example, Gibbons and Murphy 1990).

Given Proposition 1, it is in the top manager's direct self-interest to increase the size of the organization s/he is heading. The next question therefore is what this top manager can do to increase organizational size. Clearly, the quick route to organizational size is external growth. As explained in economics' agency theory and by finance's hubris notion, top managers seek quick growth by M&A activities because this enhances their income and power. So this suggests the acquisition function (from now on suppressing subscript  $i$ , for convenience' sake)

$$S = f_A(A), \quad (9)$$

where  $A$  is acquisitive activity and with  $\partial S / \partial A > 0$ . For example,

$$S = \varphi A \text{ with } \varphi > 0. \quad (10)$$

Eq. (9) in combination with Eq. (7) explains Trend 2. Proposition 2 offers a summary.

Proposition 2 (M&A strategies and size):

*Top managers launch M&A strategies to increase the size of their organization, and so their income and power.*

Proposition 2 is associated with the implicit assumption that top managers are in control: they can do what they think is in their self-interest, as reflected in utility function (8). The modern literature on corporate governance suggests that this is indeed often the case. For a modern top manager, it is instrumental to stay in control, to be able to engage in effective rent-seeking behavior. We claim that much organizational change serves precisely this very aim of keeping control. Organizational change programs are launched to sustain control (see Van der Mandele and Van Witteloostuijn 2013 for a similar argument). Without

such change, control-eroding forces would have the time to gain momentum. This implies a control function

$$C = f_C(O), \quad (11)$$

where  $C$  denotes the top manager's control and  $O$  organizational change. Our logic implies that  $\partial C / \partial O > 0$ . For instance,

$$C = \theta O \text{ with } \theta > 0. \quad (12)$$

Control is needed to sustain power. This serves a dual goal. First, power is a source of managerial utility in and of itself (see Eqs. 2 and 3). Second, power is a prerequisite for managerial rent-seeking behavior (see Eqs. 9 and 10). That is, Eq. (6) must be extended to

$$P = f_{sc}(S, C), \quad (13)$$

which is, for instance, reflected in

$$P = \eta S + C \text{ with } \eta > 0 \text{ and } > 0. \quad (14)$$

This logic relates to Trend 3, and is summarized in Proposition 3.

Proposition 3 (control and power):

*Top managers frequently initiate organizational change programs to develop and sustain control and power.*<sup>20</sup>

This is only one side of the coin. The other side relates to avoiding that other organizational members gain power. Managerial control and power decrease with increasing workforce's countercontrol and counterpower. This is why top managers tend to pay only lip service to employee empowerment, participation, and other high-performance human resource management (HRM) practices. Notwithstanding ample evidence that high-performance HRM practices are positively associated with organizational performance, the introduction of such practices is relatively rare (see, for example, Becker and Huselid 1998; and Pfeffer 1998). This is certainly true for the explicit introduction of power-sharing mechanisms in the form of organizational democracy (see, for example, De Jong and Van Witteloostuijn 2004; Van den Berg, Grift and Van Witteloostuijn 2011). The implication of this argument is that Eqs. (11) and (12) have to be extended with a negative empowerment component  $E$ , which gives

$$C = f_{OE}(O, E), \quad (15)$$

with  $\partial C / \partial O > 0$  and  $\partial C / \partial E < 0$ , which can be specified as, for example,

$$C = \theta O - \tau E \text{ with } \theta, \tau > 0. \quad (16)$$

Eqs. (15) and (16) are reflected in Proposition 4.

Proposition 4 (empowerment):

*Employee empowerment through high-performance HRM practices reduces managerial control, and so managerial power.*

This provides a sociological rational choice explanation for Trend 4.

With control and power in place, top managers can boost their income directly by negotiating attractive remuneration packages, and indirectly, by

engaging in size-increasing strategies. Substituting Eqs. (9), (13), and (15) into income function (4) gives

$$I = \gamma P = \eta S + C = \phi A + \theta O - \tau E. \quad (16)$$

This offers a sociological rational choice theory explanation of Trend 5, as all parameters are positive (see above). In Proposition 5, we summarize this logic.

Proposition 5 (income):

*A top manager's income is positively associated with the organization's size, change rhythm, and M&A activities, as well as with managerial control and power, and negatively with employee empowerment.*

This closes the circle of our rudimentary sociological rational choice theory of organizational change, offering ultimately a managerial power explanation of the five societal trends listed in the Introduction.

Of course, the above is only a skeleton of a sociological rational choice model of organizational change. Much future work is needed to fine-tune the model's specification, to carry out robustness analyses, and to derive novel propositions. Particularly, we would like to put the above managerial decision-making model in a competitive context in which different managers/organizations interact. Economics' delegation games, as reviewed above, offer a nice toolkit to do precisely this. This would require adding two elements to the above sociological rational choice imaginary of top managerial decision-making: (1) a first stage in which the top managers as agents negotiate a governance and remuneration deal with owners as principals; and (2) a third stage in which competition among a set of top managers and their organizations evolves. The above decision-making model would be part of this overall setup as the second stage. In the first stage, the owners/principals can try to manipulate, indirectly, the top managers' utility function by defining the rules that will, after the third stage, determine their top managers' incomes. In the third stage, actual competition among organizations will fix the organization's size and the top manager's income. In such a setting, the robustness of the propositions suggested here can be put to the theoretical test by changing the rules of the competitive game, introducing different mixtures of top manager features, associating organizations with different sets of characteristics, and so forth. For now, though, the above skeleton of the second stage must suffice, serving two purposes. First, it illustrates what the microfoundation of a sociological rational choice theory of organizational change could look like. Second, it offers a stepping-stone to formulate a series of tentative propositions, exploiting the model's underlying logic. It is this to which we turn now. In Figure 16.1, we summarize our set of five propositions schematically, representing the underlying relationships in an overarching framework that binds key concepts together.

Note that we have added a few additional hypothesized linkages, which could be integrated in the model—that is, we suggest that acquisition activities have a positive impact on the frequency of organizational changes and a negative effect on the implementation of high-performance HRM practices. Of course, future theoretical work is needed to substantiate or refute this set of eleven relationships, and to add many other alternatives. Also, empirical

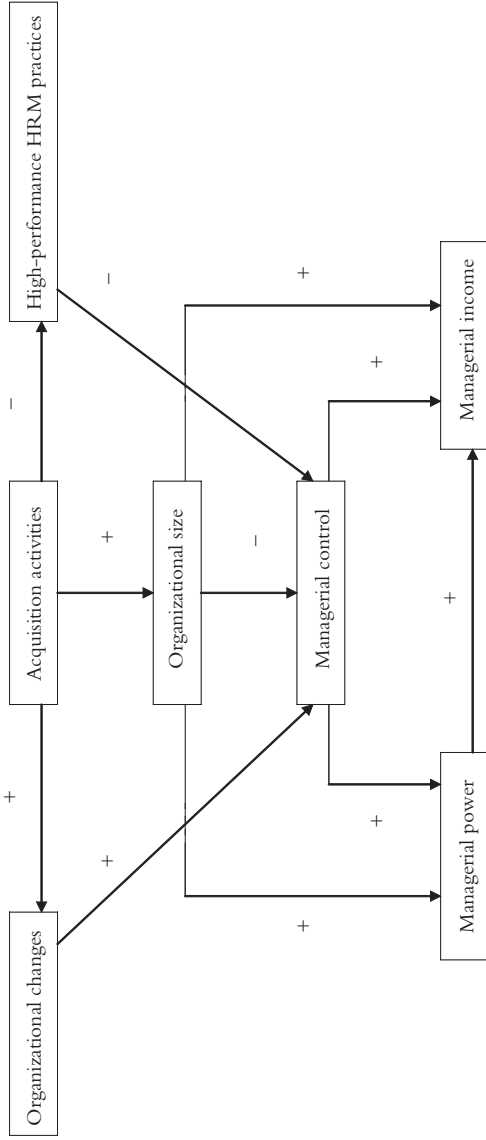


FIGURE 16.1. A microfoundation of a sociological rational choice theory of organizational change

contributions are required to build up a stock of evidence, helping sociological rational choice theory to refocus on the study of the macrolevel antecedents and consequences of organizational change.

### Conclusion

This chapter has sketched a sociological rational choice model of organizational change, and provided an overview of available research in this field. We started with describing five major trends related to organizational change. We proceeded with the observation that there are no sociological rational choice models of organizational change, and that the available economic models are couched in a comparative statics framework, rather than addressing change as such. We then provided a short overview of the key assumptions of economic rational choice models of change. Focusing on strategic change, corporate restructuring, and workplace transformation, we then summarized the major trend hypotheses following from available economic rational choice reasoning, and assessed to what degree the available empirical evidence supports their claims.

We come to a mixed overall assessment. While some of the trend hypotheses find support in the data, many inconsistencies remain. These inconsistencies not only contradict current popular wisdom about corporate restructuring and workplace transformation but sometimes also run counter to economic reasoning. For example, high-performance human resource management still is far less common than one would expect based on its assumed performance advantages; conglomerates are far more widespread than one would expect based on the efficiency loss that some rational choice models predict for unrelated diversification; most firms tend to upsize rather than downsize; a textbook multidivisional firm like General Motors performed best during a period when it systematically violated the core principles of the multidivisional form. In addition, many organizational changes do not achieve the goal of improving performance or the internal processes leading to it, but often have detrimental effects.

We contend that these inconclusive results can be resolved by introducing power into models of organizational change, and sketch the microfoundations for a sociological rational choice theory of organizational change in which the acquisition and maintenance of power is integrated into managerial decision-making as an objective in itself, rather than just a means. We also believe that this framework is better able to account for macroeffects of organizational change on society—an issue that up until now has been largely neglected. Although preliminary, it opens up several areas for future research. We would like to conclude our contribution with briefly sketching some of them.

First, a crucial assumption in our reasoning is that organizational change is a means to increase managerial control. An implication of this assumption is that managerial control should increase after restructuring, *independently of the type of governance structure that is implemented as a result of the change*. That is, power can have a variety of different bases, and centralization is not the only way for management to increase control. Indeed, many firms go



through a series of restructurings, with their governance structures oscillating between centralization and decentralization. Our framework would imply that independently of the form that such changes take, they would lead to an increase or at least stabilization of managerial control. We are not aware of any large-scale studies on this link. Indirect evidence comes from employee survey research investigating trends in workplace innovation in Europe. It shows that both task discretion (Gallie, Felstead, and Green 2004) and job control (Gallie 2005) decreased through time. In addition, case study research (Prechel 1994; Vallas 1999) provides evidence that managerial control increases even if organizational change results in decentralization. Such findings run counter to current flexibility arguments, which postulate that restructuring of modern firms follows a trend toward more autonomy for employees and middle managers. Yet such an argument “does not acknowledge that decentralization entails more precise controls at the point of production to ensure concomitant standardization of social action and product quality” (Prechel 1994: 741).

Second, our framework further implies the need to have a closer look at organizational processes that lead to an erosion of managerial power and control loss. Control loss may be due to increases in organizational size (Williamson 1967), design complexity and incomplete contracting, and communication imperfection (Van der Mandele and Van Witteloostuijn 2013). Hence, the increase of a top manager’s power base through upsizing at the same time bears the seeds for the erosion of managerial power. Similarly, complexity-increasing strategies such as M&As might lead to future control losses. This type of reasoning suggests that, in the end, power-promoting strategies might well lead to loss of control, and hence power, in the longer run. More generally, analyzing these kinds of topics implies that rational choice models of organizational change should also explore issues of feedback loops and intertemporal sustainability.

A third area for future research is related to the distinction between *de facto* and *de jure* power (Acemoglu and Robinson 2008) or formal and real authority (Aghion and Tirole 1997), a distinction neglected in our model. For example, building on sociological ideas on the emergence of oligarchy, Acemoglu and Robinson (2008) show that changes in the allocation of *de jure* power might result in elites intensifying their investments in *de facto* power. Applied to organizations, this finding implies that, for example, attempts to limit top management’s formal power is likely to spark top managers’ attempts to increase their real power toward organizational stakeholders.

Finally, with our model being developed for business firms, we did not address the question of to what degree our claims also hold for organizational change in public and semipublic organizations. We believe that many of the above arguments apply equally well in the domain of nonprofit organizations. However, there are differences, too. For instance, most nonprofit organizations are not engaged in competition in the marketplace, and some nonprofit managers may be characterized by a utility function that includes a component reflecting the desire to contribute something to public service. In future work, these and other features specific to the nonprofit sector can be added to the type of organizational change models introduced above.

Organizational change takes many forms, and there are no signs that its incidence will decrease in the coming decades, leaving social scientists with

the challenge of explaining its antecedents, processes, and outcomes, including its societal consequences. We hope that the rudimentary sociological rational choice framework sketched in this contribution will prove a useful tool for that purpose.

### Notes

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1. U.S. Census Bureau (<http://www.census.gov/csd/susb/susb04.htm>).

2. We focus on private enterprises only. An interesting question is to what extent the arguments presented here also apply to public, semipublic, and voluntary organizations (Nieto Morales, Wittek, and Heyse 2012).

3. Of course, this ignores fluctuations over time. Basically, these numbers tend to decrease in times of economic downturn. For example, after the Internet bubble burst, the number of average employees in the top 1 percent decreased from approximately 250,000 in 1999 to about 213,000 in 2000. It can be expected that the upward trend is disrupted in the present financial crisis period, too, as it is for average M&A activity (Trend 2) and top remuneration (Trend 5).

4. For the poor, similar statistics could be presented. What is striking is the *detour* of the middle class.

5. Our treatment of the organizational change literature is biased and incomplete, given our “ultimate” focus on rational choice and societal issues. For those interested in reviews of this literature from other angles, we refer to the relevant chapters in Baum (2002).

6. There are other microeconomics’ literatures that relate to issues of organizational change in a similarly indirect way. For instance, the industrial organization literature on multiactivity, multiasset, or multiproduct firms specifies production functions that reflect scope economies (or, in modern jargon, complementarities), implying that the costs or benefits of having two or more assets, activities, or products under a single organizational roof are lower or higher, respectively, than in single-activity, asset or product organizations. The extent and nature of such scope economies then imply an “optimal”—that is, cost-minimizing or profit-maximizing—activity, asset, or product mix. Examples of this tradition are Rubin (1973); Panzar and Willig (1977 and 1981); Bailey and Friedlaender (1982); Milgrom, Qian, and Roberts (1991); and Milgrom and Roberts (1995). Again, comparative statics imply organizational change. A shift in scope economies will trigger a change in the optimal activity, asset, or product mix. For the sake of brevity, we limit attention in the main text to contributions that relate more closely to issues of internal organizational change.

7. Delegation games combine agency with industrial organization theory, modeling the interaction of principal-agent arrangements with competition in the marketplace (for recent examples, see Jansen, Van Lier, and Van Witteloostuijn 2007; Van Witteloostuijn, Jansen, and Van Lier 2007).

8. Actually, power is a key concept in economics at large, as is clear from the many models on market power in industrial organization and state power in institutional economics.

9. Scope means that the value created by the joint production of two outputs is greater than if the two outputs were produced separately. Economies of scope can be realized if the total cost ( $C$ ) of producing two products  $Y_1$  and  $Y_2$  in one firm is lower than the combined cost of producing both products separately (Helfat and Eisenhardt 2004: 1218):  $C(Y_1, Y_2) < C(Y_1, 0) + C(0, Y_2)$ . Formal models of diversification based on

this reasoning were developed by Panzar and Willig (1981); Rubin (1973); and Bailey and Friedlander (1982).

10. Of course, our review cannot discuss the many intricate debates and subtle arguments that abound in the literature. For instance, recent insights have emerged arguing that conglomerates experienced a comeback in the 2000s in the form of private equity funds (Van Witteloostuijn 2007).

11. The other dimensions constitute the firm's physical capacity (for example, number of airplanes), organizational in- or outputs (such as number of passengers served), and the discretionary resources available to the organization (for example, net assets).

12. For formalization of some of these arguments underlying the M-Form hypothesis, see Aghion and Tirole (1995); Rotemberg (1999); Maskin, Qian, and Xu (2000); Itoh (2003); and Inderst, Müller, and Wärneryd (2007). These models of the choice between M-Form and U-Form focus on three mechanisms (Itoh 2003): control benefits, improved incentives, and internal capital markets.

13. The reasoning is, in fact, consistent with sociological accounts formulated in the context of *resource dependence theory* (Pfeffer and Salancik 1978).

14. Three types of internal reorganizations have attracted attention during the past decade: reconfiguration/recombination of units within the firm, charter change, and de- and relayering. Given the paucity of empirical research on reconfiguration and charter change, both of which are relatively recent areas of investigation, we focus on delayering.

15. See <http://www.cranet.org/>: "During the first 5 years of the survey (1990–1995) the questionnaire was distributed to between 25,200 and 33,100 organizations each year and received between 5,000 and 6,500 responses. This is a response rate of 16.6–22.5%, varying between countries. . . . In 1999 the survey was distributed to over 50,000 organizations and received 8,050 responses, giving a total response rate of 15%."

16. Appelbaum and Batt (1994: 173–90) provide a succinct summary of twelve surveys on workplace practices, carried out in the United States during the late 1980s and early 1990s.

17. For the sake of parsimony, we ignore the time dimension here. This is an important issue, though, as the time horizon of the manager (and other stakeholders, for that matter) is an important determinant of decision-making, as is clear from standard game theory and the literature on modern shareholderism; Van Witteloostuijn 2007).

18. In the microeconomics of competition, called industrial economics or industrial organization, the concept of market power is critical. This relates to another level of analysis, though—the firm rather than the manager.

19. We could introduce more complex functional specifications (say, of the Cobb-Douglas type). We decided not to do so, to keep the argument as simple as possible. That is all we need in the context of this chapter, where our model serves illustrative purposes only.

20. Strictly speaking, Proposition 3 is silent about the argument reflected in Trend 3 as to the increased rhythm of organizational change over time, as suggested in the management hype literature (Sorge and Van Witteloostuijn 2004). In future work, a sociological rational choice model may be developed that focuses on this very rhythm issue.

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