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Edited by Paul DiMaggio: The Twenty-First-Century Firm

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CHAPTER 1

Introduction: Making Sense of the Contemporary Firm and Prefiguring Its Future

Paul DiMaggio

A GLANCE at the covers of contemporary business periodicals reveals that many people believe the corporation is changing so dramatically that we need a new lexicon to describe it. On a recent trip to my local book superstore, I found eleven titles that sought the right word to characterize the company of the future in a time of dizzying change. Some of these—*The Boundaryless Organization* (Ashkenas et al. 1998), *The Centerless Organization* (Pasternack and Viscio 1998), *The Clickable Corporation* (Rosenoer et al. 1999)—seized upon the greater permeability of organizational borders as the central image. Several others—*The Collaborative Enterprise* (Campbell and Goold 1999), *The Horizontal Organization* (Ostroff 1999), *The Self-Managing Organization* (Purser and Cabana 1998)—emphasized the flattening of hierarchy and a putative shift toward more cooperative forms of management. Still others—*The Minding Organization* (Rubenstein and Firstenberg 1999), *The Learning Company* (Pedler et al. 1991), *The Learning Organization* (Garratt 1994), *The Knowledge-Creating Company* (Nonaka 1995)—emphasized the central role of creativity, learning, and knowledge in the effective organization of the future.

Once observers of companies get down to specifics, the ways in which they characterize these changes are astonishingly disparate. Are contemporary firms recognizing the importance of their human assets, integrating employees into decision making as never before, investing in staff and workers, and defining them as "stakeholders"? Or are they treating workers as commodities, wringing the last ounce of commitment and energy from their employees, demanding give-backs from unions, and breaking implicit "lifetime-employment" contracts with managers in waves of ruthless downsizing? Is the "new firm" small and flexible, engaged in a web of collaborations with other small enterprises, each specialized to perform at peak capacity? Or is it an ever-expanding global leviathan, bloated with acquisitions after a decade of unprecedented merger activity? Does the

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future belong to flexible networks of cooperating companies—or to increasingly intense rivalry between leaner and meaner competitors? Do contemporary enterprises craft strong identities, motivating employees with meaningful corporate cultures and an intensely shared sense of mission? Or has the firm become a mere "nexus of contracts" (Fama and Jensen 1983a) that induces contributions with stock options and other financial incentives in a world in which company boundaries are porous and identities indistinct?

Although the tropes and images used to understand change in the business world are diverse and contradictory, their proliferation presents no mystery. For contemporary businesses are buffeted by a unique combination of change-inducing forces. The rise of the global economy has entailed unprecedented capital mobility, hastening the shift from manufacturing to service industries in the advanced economies, while requiring that companies everywhere develop the capacity to compete in a global marketplace. Changes in information technology expand the capacity of firms not only to monitor their workers and production processes but also to engage more employees in processes of product design and organizational change, to bring more information into the company, and to get products out to consumers in ways that dramatically alter cost structures and organizational designs. Expansion of educational levels in much of the world, and the combination of economic pressures and increased opportunities that have led more and more women into the marketplace, have reshaped the workforce. In the West, changes in technology and law, and in the philosophy and behavior of investors, have honed the market for corporate control and made company managements more responsive to the bottom line. In Asia, cycles of boom and bust have called into question distinctive ways of organizing that in the 1980s were hailed as models that could save Western competitors. And nowhere has change been more momentous than in the former socialist world, where nation-states privatized vast waves of factories and other enterprises, and business people and governments alike had to improvise "capitalist systems" that were far more complex and ambiguous in practice than they had been in prospect. Not since the industrial revolution have so many dramatic transformations coincided with such force. No wonder, then, that the categories people have used for the past century to think about the corporation appear inadequate, and no wonder that so many are trying so hard to find new ones.

Despite the variety of perspectives being offered, most commentators agree on a few fundamentals. For one thing, many agree that companies are interacting with one another differently than in the past. Throughout the world, the strong boundaries that once separated firms have become less distinct, while traditional arms-length market transactions have become more intimate. New forms of coordination—"relational contracting"—

have emerged that entail much less commitment and control than bureaucracy, but more binding ties than simple market exchange. Moreover, business alliances—groups of legally independent companies knit together by such factors as ownership by one extended family, mutual shareholding, or strong, enduring collaborations—achieved new visibility when the economies they dominate entered the world's center stage (as in the cases of Japan, and then in Taiwan and Korea), or emerged anew in response to institutional volatility in the wake of regime change (as in Russia and Hungary).

Within corporations, consultants, pundits, and new MBAs are telling seasoned managers to violate helter-skelter the rules they learned in business school. In the sphere of employment, less secure internal labor markets, more fluid job definitions, and more ambiguous reporting relationships replace the rules of clarity and commitment. In the realm of production, the "Fordist" system of disciplined assembly-line work using expensive, dedicated machinery to achieve a sharp division between execution and design is being replaced. Companies increasingly opt for flexible production using cheap and/or multi-use technology, with conceptual effort controlled in some firms by technical experts, but in others delegated to re-skilled production employees or distributed among teams drawn from many parts of the organization (Kelley 1990). In supplier relations, multiple competitive sourcing and the maintenance of large inventories—the conventional strategies by which companies protected themselves from exploitation—have in many instances yielded to long-term, sole-source relational contracts and just-in-time delivery. Company/customer relations are being redesigned as collaborations that challenge the traditional boundaries of firms: whereas firms once created attractive products first and then marketed them widely, clients now participate actively in the design of sharply differentiated products tailored to particular markets.

Management writers and business scholars have identified these developments at the same time throughout much of the world, and many have been quick to identify and label them as new forms. To be sure, the ubiquity of change—and the apparent affinity among several dimensions of change observed throughout the business world—*is* striking. But the nature and long-term implications of change are as yet dimly perceived.

For one thing, the literature is far richer in striking examples of purported trends than in careful empirical studies documenting the scope and incidence of change. It is one thing to read about a firm—or a half dozen firms—that have changed dramatically their way of doing business. We rarely have the information needed, however, to distinguish between eccentric companies, or industries facing idiosyncratic competitive environments, and harbingers of long-term organizational and economic change.

Even when trends—such as downsizing middle management and engaging in long-term relationships with suppliers—are documented, we lack a

clear analytic understanding of the connections among them. Are trends that coincide connected by logical necessity? Is their simultaneous appearance merely coincidence? Or are they intrinsically unrelated elements united discursively into a package promoted by business consultants and academic management programs?

Moreover, there is little consensus about the relative importance of particular developments. Books targeted at the business trade market often focus on just one trend, making lavish claims and employing an unacknowledged synecdoche by which a single element of change substitutes for careful consideration of a hazily specified whole. Even serious scholars find it difficult to apprehend the full horizon of organizational change, due to academic specialization. No one person, no matter how gifted or industrious, could possibly be an expert on every facet of global enterprise: like the blind men and the elephant, researchers' perspectives on change are often restricted to particular places, industries, or business functions. Careful analyses that take into mutual account business firms (other than the largest multinationals) in different regions of the globe are especially rare.

This volume is an effort to bring some order to the chaotic tumble of diagnoses, labels, and descriptions that characterize the field. We make no effort to find a single trope to capture the variety of developments described herein, nor do we try to paint a single portrait of the corporation of the twenty-first century. Forms of business enterprise are much too diverse, and the currents of change are rushing forward too swiftly, for anyone to predict the future. Our goal, instead, is to take account of what we *do* know, to sweep aside commonly held misapprehensions, to provide a clear picture of the main directions of change and the possible alternative futures to which they lead, and to articulate clearly the major puzzles that remain. As such, this volume aims to be both a stock-taking and an exercise in historical imagination.

Our strategy has been to draw on the strengths of leading scholars from several perspectives and to induce a conversation among them. The authors of the three chapters that follow this introduction—Walter W. Powell, David Stark, and D. Eleanor Westney—are regional experts who have devoted most of their professional lives to understanding, respectively, economic organization in the United States and Western Europe, the former socialist societies of Eastern Europe, and Japan and East Asia. Their contributions report in a systematic way on what we know about change in corporate structure, strategy, and governance in the places they have studied, separating fact from fiction, established trend from extravagant extrapolation. The authors of the four commentaries that follow—Reinier Kraakman, David Bryce and Jitendra Singh, Robert Gibbons, and Charles Tilly—are experts in economic organization who are specialized by analytic perspective rather than region. Their chapters integrate the regional ac-

counts and interpret the trends the regional authors describe, from the standpoints, respectively, of legal scholarship, evolutionary theory of the firm, organizational economics, and the comparative historical study of the nation-state. Together, the two sections of this book produce an overview unusual in its combination of depth, balance, and insight.

The Twentieth-Century Model

Until relatively recently, social scientists and historians viewed the corporation through the serviceable lenses of theories developed during, or shortly after, the industrial revolution. The period that saw the rise of the factory system in England and its diffusion to the United States and Europe witnessed changes in organization and production, and in the social relationships and community structures that sustained them, even more striking than those we experience today. And like the current era of change, the late nineteenth century was a period in which social thinkers worked overtime to give form to and grasp the significance of the transformations occurring before their eyes.

The twentieth-century view of the firm was shaped, above all, by two thinkers of uncanny, if hardly infallible, prescience. One of them, Max Weber, wrote an essay on "bureaucracy" at the turn of the last century that crystallized understanding of the organizational structure of the firm (and of government agencies and large nonprofit organizations as well) for several generations. The other, Karl Marx, writing several decades earlier, located the capitalist enterprise in the larger political economy in a way that influenced historians and social thinkers throughout most of the twentieth century.

Weber on Bureaucracy

Weber ([1924] 1946) presented his model of bureaucracy as an "ideal type"—not a literal description of concrete bureaucracies (though it was certainly influenced by the major examples he had before him, those of the Prussian armies and the major capitalist firms), but a simplified account of the central dimensions of a new technology of human control and of the logic that knit these dimensions together.

As Weber observed, methods of control based on the kinds of informal social networks in which every society abounds were poorly suited to an age of unprecedented military and economic competition. In both war and business, victory would come not simply to those with the biggest armies or the newest technologies, but to large-scale organizations that could harness the energies of their members to a common goal. The key, according to Weber, was to render irrelevant people's ordinary social ties, to structure

organizations so that employees would leave their family connections and personal identities at the factory gate.

Weber's famous essay on bureaucracy provides a complex account of the form's features and internal organization, but for present purposes we can focus on only a few key dimensions. First, bureaucracies are governed by "calculable rules"—rules that are open, widely understood, and fairly applied—rather than by persons. The most important of these rules establish a hierarchy of offices, prescribing who can communicate with (and give orders to) whom. Another set of rules governs the admission of persons to the organization, describing clearly the accomplishments that make persons eligible for employment and articulating standards for advancement when vacancies arise. A third set of rules establishes routines for the performance of work: what tools are to be used to repair a machine, how many people must be in the cockpit to fly a plane, how many hours one can drive a truck without sleep, or how to fill out a purchase order for new supplies. Rules dictate who in the organization may do certain kinds of work: they tell us, for example, that only a radiologist may interpret a CAT scan or that only a union-certified electrician may repair a short circuit. And rules specify behaviors that are *un*acceptable—pilfering wallboard from a construction site, importuning employees for personal favors, promoting one's cousin over more qualified candidates—ordinarily because such actions put an employee's interests above those of the organization. These examples, like many of Weber's observations about bureaucracy, seem obvious today. But that simply goes to show how successful the bureaucratic form of organization was, because few if any such rules could be found in most organizations before the nineteenth century.

Rules, Weber argued, are beneficial for several reasons. For one thing, they prevent employees from using organizations to enhance their own welfare rather than contributing their services to advance the organization's ends. Most important, they reduce what we now call "transaction costs"—the costs of deciding, haggling, arranging, and coordinating—in two ways. First, by making everyday activities repetitive and predictable, they reduce uncertainty and permit bosses to give most of their attention to the relatively few decisions that deal with matters too unusual or complex to be reduced to a formula. Second, by specifying fixed procedures for the allocation of both rewards and punishments that apply to everyone, they increase the likelihood that employees will receive fair treatment (at least compared to one another) and limit the amount of time devoted to quarreling about horizontal equity.

After reliance on rules, a second essential feature of Weber's model of bureaucracy is what he called "the separation of person and position": the existence of fixed, well-defined roles specifying the rights and obligations of every organization member (except those at the top of the hierarchy,

who remain free to do as they like unless they are constrained by rigid custom or by laws imposed by the state). The modern bureaucracy, with formal job descriptions and a formal organization chart, reduced transaction costs by making duties clear and eliminating the need for members to negotiate about the allocation of routine tasks. Equally important (in an age in which most people, if they could get away with it, regarded their workplace as an extension of their personal domain), bureaucracies required that participants interact with one another in terms of their formal work roles rather than their personal identities (mandating separation of personal and official business, evaluating workers on the basis of role performance, forbidding superiors to make demands on their subordinates unrelated to the latter's job description, and so on). In so doing, bureaucracy eliminated the source of much of the conflict that helped to make prebureaucratic forms of large-scale organization notoriously unwieldy.

A third feature central to Weber's model of bureaucracy was the proliferation of written communication and formal records, which had several functions. For one thing, it collectivized memory, which had previously been inseparable from (and therefore a source of considerable power to) persons. A filing system enabled many aspects of organizational history and routine to be written down and retained for the use of the occupants of relevant roles, whoever they might be. Moreover, files enhanced calculability and control, both of employees (whose performance could be tracked according to explicit criteria) and expenses, through the use of double-entry book-keeping, which enabled enterprises to discern fraud and control costs more effectively than in the past.

Finally, bureaucracies possessed a unique way of rewarding employees that created a coincidence of interest between worker and firm. By offering employees lifetime job security and making compensation and advancement depend on how well each worker fulfilled his or her official role, bureaucracy gave employees the strongest possible long-run motivation to please their superiors. Moreover, the likelihood that employees and superiors would advance through the hierarchy at unequal rates, and that employees would therefore have a variety of superiors over the course of their careers, provided an incentive for workers to gain the boss's esteem by performing well in their official capacity rather than doing personal favors that another superior would have no reason to reward. Here, for once, Weber was wrong, in the sense that formal job tenure rights have been limited largely to government service and to those professions where novices are admitted to a collegium (partnership in a law practice, tenure at a university) after several years of acceptable service. In practice, however, informal lifetime employment has often characterized large, market-insulated corporations as well, either for all employees (as in Japan's core firms) or for the white-collar labor force (as in the United States before the 1980s).

The key dimensions of Weber's model of bureaucracy—fixed hierarchy; separation of person and position through formal job descriptions; clear, numerous, universally applied rules; long-term employment within the enterprise; and reward based on a combination of merit and seniority—remained central elements of organizational design through most of the twentieth century and, indeed, in comparison to preindustrial forms of organizing, they characterize most large organizations today. Yet, as we shall see, contemporary managers, consultants, and academics are challenging some of the key tenets of this highly effective formula to an unprecedented extent.

Marx on the Capitalist System and the Post-Marxian Synthesis

It may seem odd in the twenty-first century to hail Karl Marx as prophet. But while aspects of his historical vision were sharply flawed (and the socialist state systems that others developed in his name have been roundly discredited), Marx, like Weber, captured key dimensions of the changes that buzzed around him, systematizing new developments into a comprehensive and compelling analytic framework. But whereas Weber (who, to be sure, benefited from having a half century longer than Marx to observe the contours of change) identified the blueprint of bureaucracy with uncanny accuracy, the Marxian account of the capitalist system was amended and supplemented by latter-day scholars trying to understand why Marx's big historical predictions had not panned out.

Marx himself deserves credit for identifying the logic of capitalism as a system, and the centrality to capitalism of the factory and the large-scale firm. Better than any of his contemporaries, Marx understood the endemic antagonism between boss and worker as the product of an economic logic built around inexorable competition among profit-seeking firms. And he described the implications of this conflict for the organization of the labor process with exceptional insight ([1867] 1887).

Where Marx's analysis failed (or, at least, proved premature), and where the neo-Marxists of the second half of the twentieth century sought to bail him out, was in his prediction that the capitalist system would come to a crashing demise amidst economic depression and workers' rebellions, as the rate of profit declined to zero. For a while, this prognosis appeared plausible: between 1870 and 1940, the United States, for example, suffered through repeated cycles of economic boom and bust, the latter accompanied by violent confrontations between labor and management. But after World War II, the ferocity of economic cycles declined, labor relations stabilized, and several decades of unprecedented prosperity (marred by rising inequality in the United States and high unemployment in much of Europe) ensued.

Why, asked political economists, did workers not revolt? How, they wondered, were companies able to avoid the ruinous competition that Marx had predicted? The numerous ways in which commentators answered these questions provided much occasion for vigorous disagreement, but in the end many observers—not just neo-Marxists, but liberal economists and sociologists as well—came to accept a story with six basic elements.

First, Western firms and Western workers benefited from the military subjugation of less-developed countries to the economic interests of the advanced capitalist nations. By exploiting the Third World's masses through gunboat diplomacy and political manipulation, Western companies could afford to exploit their domestic employees less (Lenin 1939).

Second, companies grew in size through merger and acquisition until only a few large players were left in many of the major industries. These big "oligopolists" (an "oligopoly" is an industry controlled by a small number of producers) were able to use tacit understandings to avoid serious competition and therefore to charge monopoly prices and earn monopoly rents, part of which they used to pacify their work forces (Baran and Sweezy 1966).

Third, this new system of "monopoly capitalism" generated its own form of workplace organization. Workers in the earliest factories (and in marginally profitable manufacturing industries that remained competitive) earned low wages and suffered under the thumb of coercive foremen, who disciplined them brutally and fired them if they complained. By contrast, workers lucky enough to find jobs in large postwar companies experienced more carrot and less stick. Many rules that governed their work were invisible because they were built into high-powered machines. The pace might be grueling but high wages, decent benefits, and job security (often guaranteed by labor unions that bargained tough on compensation but deferred to management on issues of workplace control) made up for it. The coercion Marx viewed as endemic to capitalism yielded to "bureaucratic control" (Edwards 1979) through formal rules administered by systems with which workers had little personal contact.

Fourth, not all workers fared so well. Employees in the industrialized nations' "competitive sectors" (and a *fortiori* those in the Third World), received few if any of the advantages awarded employees of "primary-sector" firms that were buffered from the competitive marketplace. Lacking union representation or job security, with few protections from labor law and few benefits beyond a meager wage, competitive-sector workers (drawn disproportionately from among immigrants or racial and ethnic minorities) served as shock absorbers for the larger system (Gordon et al. 1982).

Fifth, large monopoly-sector companies were willing to share the wealth with their workers, rather than distribute all of the surplus to shareholders, because of changes in company governance that shifted control from owners to professional managers. Whereas vigorous owner/entrepreneurs once strove to maximize profits, their heirs absented themselves from corporate governance, which they entrusted to salaried managers. In some versions of this argument (Galbraith 1967; Burnham 1941), companies became so complex that headquarters could no longer control middle managers, who ran their fiefdoms as they liked. In other versions, the diffusion of stock ownership and the rise of passive, pro-management, institutional shareholders meant that individual shareholders were too disorganized to exercise effective control (Berle and Means 1932; Drucker 1976). In any case, professional managers were said to prefer growth, increased market share, labor peace, and financial stability to the high profits that shareholders cherish.

The sixth and final component of the post-Marxian synthesis was the state, which Marx had dismissed as the "executive committee of the ruling class" ([1852] 1973). Yet the New Deal challenged the political power of business, supported union organizing efforts, passed protective legislation, and enhanced the status of federal employees with rights and benefits programs that became models for the private sector (Baron et al. 1986). After World War II, European social democracies increased the scope and generosity of social welfare programs and, in many cases, accepted trade unions as partners in both corporate and societal governance. Some neo-Marxists contended that such benefits represented a divide-and-conquer technique whereby the "ruling class" sapped the workers' revolutionary fervor. Other more perceptive observers viewed such reforms as products of the interests and convictions of political leaders, but questioned whether government revenues could sustain them in the long run (O'Connor 1973). Nonetheless, many believed that the capitalist social democracies had found a potentially stable trade-off between growth, profits, and welfare, anchored in an alliance between the liberal state and the bureaucratic, oligopolistic firm, with trade unions as junior partners.

The twentieth-century model of the firm, a view of enterprise based jointly on the analytic frameworks of Weber and of Marx and his successors, did more than structure our perceptions of the firm for half a century or more. It also identified the key factors—at the organizational level, bureaucracy, and at the level of the economy, free-market legal and political institutions—that constituted the modern industrial order. All working advanced market systems rest on an institutional base that accomplishes two things. First, legal and government institutions (contract law, securities law, consumer regulations, and so on) enable partners in market transactions to

be confident that they will get what they paid for, or have effective avenus of appeal if they do not. Second, a range of institutions—insurance companies, government agencies, limited liability forms, and much corporate law—limit uncertainty by pooling risk at more inclusive levels than was possible in simpler societies, which relied upon such means as informal mutual-assistance networks, rotating credit associations, and community work-sharing norms. The legal and economic institutions of capitalism created an environment in which the large-scale bureaucratic enterprise could function so successfully that it dramatically reduced the scope of other forms of organization throughout the industrial economies (Chandler 1977; Tilly, this volume). And the capacity for control that the bureaucratic model afforded made it possible for both state-sector and financial-sector trust-producing institutions to exercise their responsibilities effectively and with considerable credibility (Carruthers 1996; Horwitz 1977; North 1990; Zucker 1986).

In effect, Weber's model of the bureaucratic firm and the post-Marxian model of the advanced capitalist political economy were twin perspectives on the same corporate entity. The first captured the structure of the firm itself. The second described the company's relationships to its work force, its competitors, and the state. Although these models were primarily analytic rather than prescriptive, the texts used to train management students affirmed their tenets, impressing upon future managers the need to reduce uncertainty (March and Simon 1958), buffer their organizational core to maintain stability at all costs (Thompson 1967; Pfeffer and Salancik 1979), and design competitive strategies that preserved company autonomy while keeping price competition to a minimum (Porter 1980). As late as 1980, these depictions of the firm constituted a serviceable conventional wisdom for academics and managers alike.

The Twentieth-Century Model Questioned, then Besieged

The framework I have described served as a loose paradigm, a conceptual model and set of rarely articulated presuppositions that structured perceptions of researchers and practitioners alike, shaping the questions they asked and the solutions that appeared sensible and attractive. At the turn of the new century, we see this paradigm losing its power, not just (or even primarily) in the more refined reaches of academic and business thought, but in the popular imagination as well, as authors of books and magazine articles search for ways to characterize what they believe is a fundamentally different order. Whether or not they are right—which is, of course, a central question addressed by each of this volume's remaining chapters—the change in tone is striking, and the rapidity of the change suggests that it is not merely a passive reflection of corporate practice.

One thing is sure: before they break down, paradigms begin to show wear. Well before the 1990s' sea change in conventional wisdom, scholars chipped away at aspects of the bureaucratic and neo-Marxian models, exposing anomalies that would eventually combine to undermine fundamentally those models' grip on our perceptions of the firm.

Challenges to the Bureaucratic Model

Elements of the bureaucratic model came under both normative and analytic assault. Three prominent lines of questioning are relevant here. First, from the 1930s on, critics noted that although bureaucracy was an unprecedentedly effective means of insulating organizations from personal and familial social networks, such insulation was never complete. Management theorists advocated schemes to make informal networks work *for* the firm, while sociologists warned that companies could not be understood unless networks of informal social relations—networks that intruded from the larger community and grew like ivy around firms' formal structures—were taken into account.

Second, from the 1950s on, empirically oriented organization theorists questioned whether the several components of Weber's ideal-type model of bureaucracy (clear and numerous rules, strong career incentives, extensive written records, and so on) were all essential. Critics suggested that they were not, and that distinct variants of bureaucracy, high on some components and low on others, were better suited for, and more likely to be found in, particular types of firms.

Third, from the 1970s on, economists, sociologists, and management theorists actively questioned whether bureaucratic firms were the best way to organize the production of goods and services after all. They suggested that the control advantages of bureaucracy should be (and, in practice, were) traded off against the flexibility afforded by markets, with the appropriate choice depending on the precise characteristics of the transactions that production entailed. By the 1980s, this work took an even more radical turn, as new scholarship suggested that the choice of form was not dictated in any simple way by production or organizing costs or technological factors, but was instead shaped within wide boundaries by a complex interaction of institutions, politics, and cultural understandings.

THE TENACITY OF INFORMAL SOCIAL RELATIONS

The genius of bureaucracy, as Weber described it, was its capacity for control, its ability to harness the activity of masses of employees to the goals of the executives of a corporation or a state. The genius of Weber was to see that control depended on the organization's ability to convince members to leave their ordinary social ties at the firm or bureau's door

and to do their jobs without reference to the complex personal and family networks of reciprocal obligation in which they were otherwise embedded. Based on a painstakingly thorough reading of history, Weber appreciated the fact that an executive cannot control complex social activities simply because he or she is the emperor or the boss, or is strong and powerful, or possesses weapons and is willing to use them brutally. Weber analyzed perspicaciously the rise and fall of empires and the endemic failure of their executives to sustain control over the long run. He saw that in prebureaucratic systems might was never enough and power often evaporated more quickly than it could be accrued. He also observed that leaders relied for sensitive matters either on those to whom they were personally tied by kinship, or on staff members whose own kin networks were for some reason dramatically attenuated (for example, eunuchs or priests); and that nonkin groups were most effective in commanding loyalty over the long haul when, like monastic orders, they forced their members to renounce other social ties.

Weber was not alone in identifying the extraction of organizations from dense webs of informal social relations as the key to the problem of control. Even before Weber wrote his classic essay, an American engineer named Frederick Winslow Taylor developed a system called "scientific management" by which bosses, working with a new class of scientific industrial engineers, could dictate workers' every movement, eliminating every ounce of employee discretion in the interest of control. Although the Taylor method was rarely if ever adopted in its pure form, it powerfully influenced the organization of factory work, and was employed (with much attenuation) in service organizations and government units as well (Taylor [1911] 1947; Callahan 1962; Nelson 1980).

Beginning in the 1930s, this perspective was under siege. First, a set of management scholars and psychologists from Harvard University called attention to the "informal social system" of relationships among factory workers, illustrating their arguments through an extensive program of research in Western Electric's Hawthorne Plants near Chicago (Roethlisberger and Dixon 1961). Although the Hawthorne researchers focused on the purportedly irrational blue-collar work force, Chester Barnard, a telephone company executive who encountered their work when he took time off to study at Harvard, extended their focus on the "informal system" to all levels of the organization. In his influential text, *The Functions of the Executive* ([1938] 1975), Barnard contended that one of the executive's most important roles was to ensure that the informal social system worked *for* the organization and not against it.

Beginning in the 1950s (and continuing through the present), sociologists joined the debate with a series of intensive case studies of real-world organizations which demonstrated that informal networks were ubiquitous

within business firms, and that such networks often worked successfully to frustrate the intentions of top executives or the interests of shareholders. Some of these informal networks emerged out of the division of labor, as department chiefs used "connections" to boost the size of their budgets and their staffs (Ritti and Goldner 1979) or to gain approval for projects they wished to pursue (Thomas 1994). Other informal networks linked the firm to the community around it: for example, Dalton (1959) reported that one had to be a member of the Masons in order to get ahead at Milo Manufacturing, and Gouldner (1954) described the deep embeddedness of the gypsum plant he studied in every aspect of community life.

Such examples by no means indicate that the Weberian model was "wrong," for Weber was comparing bureaucracy to premodern approaches to organizing states and enterprises and, compared to these, bureaucracies do indeed buffer organizational behavior from the informal networks of loyalty and identity in which it is always embedded. But such informal ties remain important nonetheless, and scholars who called attention to them set the stage for the more comprehensive assessment of networks that would follow.

VARIANTS OF BUREAUCRACY

A second line of criticism, based on statistical analysis of surveys aiming to measure the elements of bureaucracy at the organizational level, challenged Weber's model for misspecifying the relationship among the characteristics he believed bureaucracies would possess. Some scholars suggested that the link among the attributes of bureaucracy was weaker than Weber had indicated. For example, in an influential article, Udy (1959), analyzing data on organizations in preindustrial societies, demonstrated that formal hierarchy was not statistically associated with meritocratic reward systems and other aspects of the bureaucratic model (see also Blau and Scott 1962; Hall 1963). Others contended that there were different kinds of bureaucracy that varied in the extent to which they relied upon different forms of control, such as rules, hierarchy, commitment to a common purpose, or solidary incentives (Etzioni 1964). Still others, associated with what was called "structural contingency" theory, argued that organizational structures—including those aspects of structure to which Weber had called attention—varied substantially depending on the tasks the organizations had to perform. In this view, the more routine the tasks the greater the extent to which an organization can rely on a fine-grained division of labor governed by rules and a hierarchical chain of command. By contrast, formal organizations that must deal with individualized cases rather than mass or continuous-flow production need to give frontline workers more discretion. Such organizations find it rational to supplement hierarchy with

more collegial forms of coordination (Perrow 1967; Woodward 1958; Thompson 1967).

A persistent theme in this literature was the argument that knowledge workers—highly educated professionals whose assignments demanded creativity and initiative—required (and, indeed, could tolerate) fewer rules and less constraining hierarchy than workers engaged in more routine undertakings (Scott 1965; 1992, 253–56). Burns and Stalker (1959), for example, distinguished the "organic" structures appropriate for nurturing firms' research and development function from the "mechanical" bureaucratic structures suitable for nearly everyone else (see also Lawrence and Lorsch 1969; Kornhauser 1962). Indeed, Weber left his model open to this criticism by failing to resolve a tension intrinsic to it. Bureaucracies, he argued, were rational instruments of both coordination and control; moreover, they drew on educated labor to an unprecedented extent, promoting employees on the basis of merit and harnessing their expertise to organizational ends. What critics noted was that the bureaucratic structures most effective for coordinating the work of educated employees committed to the organization's objectives were rather different from the bureaucratic structures equipped to control the behavior of employees who might prefer to pursue their own objectives. Indeed, if firms could solve the agency problem—that is, if they could motivate highly educated staff to adopt the interests of shareholders as their own—conventional bureaucracy might not be the best form at all.

BUREAUCRACY AND THE MARKET AS ALTERNATIVES

In the 1970s, building on the work of Coase (1937), Oliver Williamson devised an approach to the organization of business enterprise that portrayed bureaucracy (or "hierarchy," as he called it) and market exchange as fungible organizational alternatives. In Williamson's view, economic actors choose whether to purchase goods and services on the market or to produce them internally based on relative costs. Firms arise when the "transaction costs" associated with contracting exceed the fixed costs of establishing and maintaining a bureaucratic structure (1985).

The transaction-cost approach did not in itself challenge Weber's model; in fact, some critics felt that it overestimated the extent to which the executives of bureaucratic firms could exert frictionless control (Perrow 1986). But, in placing bureaucracy and the market within a common analytic compass, Williamson set out a broadly useful framework for a comparative social-scientific approach to organizational forms that viewed bureaucracy as just one of several ways to organize production and exchange.

At the same time, a resurgence of empirical studies of business enterprises likewise called attention to the fact that organizational forms were more diverse than the bureaucratic model might suggest. In the United

States, observers noted the rise within bureaucracies of matrix structures, which violated the bureaucratic tenet of unity of command by placing project teams under the joint control of both divisional and functional authorities (Davis and Lawrence 1977). They found a few large firms that boosted productivity among technical and production staff by freeing them from hierarchical constraints (Kanter 1983). They also witnessed the efforts of large companies to "internalize markets" by establishing factor pricing across divisions, a practice that led to a range of curious hybrids (Eccles and White 1988).

At the same time, historical sociologists called into question the magisterial work of Alfred D. Chandler, Jr. (1962, 1977), which depicted the modern multidivisional firm as the logical and optimal response to the challenges posed by industrial growth and diversification. Chandler drew on painstaking archival research to describe how captains of industry first created simple Weberian bureaucracies and later devised more complex multidivisional entities in response to practical problems created as by-products of their pursuit of successful business strategies. According to Chandler, in those industries where capital costs were high and competition was sharp, firms had to seek growth, integration, and structural differentiation in order to prosper.

By the 1990s, several sociologists took Chandler to task for painting what they believed was an unduly functionalist, economistic, and triumphalist picture of the contemporary firm. Four lines of attack have been particularly prominent. First, while not denying that entrepreneurs and managers tried to pursue their interests in a rational manner, critics argued that what was "rational' depended on the legal and social institutions that defined and protected property rights, secured trust, and regulated capitalization and exchange (Dobbin 1994; Roy 1997). Second, critics have emphasized the role of state policy in determining the form of these legal and social institutions and, in many cases, the role of political power in the policy determination process (Perrow 1991; Roy 1997). Third, critics have emphasized the role of cultural and cognitive factors in shaping the way in which managers understand rational action and the strategies they choose (Fligstein 1990; Dobbin 1994). Drawing both on cross-national case studies (Dobbin 1994) and formal statistical analysis of large numbers of U.S. firms (Fligstein 1990), they have argued persuasively that no single best corporate structure dominates all others, even within a particular technology or product market. Even economists have increasingly come to endorse these two powerful ideas: that institutions matter (North 1990); and that, in the language of game theory, there are multiple winning strategies or equilibrium solutions (Gibbons, this volume). Neither position, by the way, would be at all foreign to Weber. But they are devastating to those of

his followers who believed that a particular version of the bureaucratic corporate form would dominate cross-nationally and over the long run.

As the U.S. and British economies stagnated in the early 1980s, scholars traversed the globe in search of alternative models. The ones they found deviated sharply from conventional templates. In the industrial districts of Italy and Germany, researchers discovered congeries of firms making apparel or ceramics that cooperated so intensely that they seemed to blur the line between market and organization. Using flexible-production methods to tailor products to rapidly fluctuating demand, these companies worked together on a routine basis, sharing workers, outsourcing to one another during times of high demand, even loaning machinery as the situation required (Sabel and Zeitlin 1996).

As Eleanor Westney notes in her chapter, the most jolting blows to the conventional model came from Japan, to which students of business flocked in the wake of Japanese successes in product development and trade. What they found there staggered the imagination: major companies that guaranteed their workers lifetime employment; reunited conception and execution through "quality circles" in which shop-floor employees routinely suggested changes in technical process and work design; maintained intimate relationships with suppliers and customers, working closely with them to schedule shipments to the day and meet rigorous production standards. Most remarkably, Japanese companies did all this with a mere fraction of the employees of their U.S competitors, and with flat hierarchies and relatively few middle managers.

Many scholars greeted these reports of exotic organizational forms with the excitement of seventeenth-century naturalists perusing the journals of New World explorers. Although many theorists (e.g. Williamson 1985) initially regarded such forms as "hybrids" locatable on a continuum between market and hierarchy, others viewed them as one or more entirely new species—"network forms of organization," in Walter Powell's felicitous phrase (1990; see also Gibbons, this volume). For all their diversity, the firms to which researchers called attention shared several notable features: greater suppleness than their more traditionally bureaucratic counterparts, a greater willingness to trust employees and business partners, a preference for long-term "relational contracting" over short-term market exchange for many transactions, a commitment to ongoing technological improvement—and an apparent renunciation of central features of Weber's model. Confronted by flatter hierarchies, more ambiguous job descriptions, fewer rules, and an increase in the ratio of oral to written communication, many observers concluded that in many sectors of the corporate world Weberian bureaucracy had yielded to a new way of organizing business enterprise.

Challenges to the Post-Marxian Synthesis

At the same time that changes at the organizational level called the Weberian model of the bureaucratic enterprise into question, new developments and new discoveries at the system level challenged earlier understandings of the relationship between capitalist firms and their shareholders, between companies and their workers, and among the firms themselves. First, just as growth- and stability-oriented managers seemed decisively to have secured their control of the firm against the authority of profit-minded shareholders, an antimanagerial counterrevolution turned the tables (Useem 1996). Second, as newly empowered investors and the globalization of markets provoked more vigorous economic competition, many companies became more aggressive in their stance toward unions and less indulgent in their treatment of managers. At the same time, observers of high-technology companies and immigrant enterprise in the United States, and of business organizations in Europe and, especially, Asia, began to notice the importance throughout the world of business groups or alliances (Granovetter 1993; Gerlach 1992). What they saw led them to reconsider the imagery of interfirm relations in Western management writing and, more radically, raised fundamental questions about the nature of firm identity and agency in evolving capitalist systems.

THE REASSERTION OF SHAREHOLDER CONTROL

After the 1980s, resurgent investors wound back the managerial revolution, reestablishing control over sluggish oligopolies in all the major industries, assertively in the United States and more tentatively in Europe. According to the managerial revolution thesis, this was not supposed to happen. Managers were to have been protected because they monopolized information, because shareholding was diffuse and shareholders were thus difficult to organize, and because the largest shareholders (institutional investors like insurance companies, pension funds, and mutual funds) passively observed "the Wall Street rule": Don't argue, sell your shares. Indeed, no less a pundit than Peter Drucker (1976) pronounced that "pension fund socialism"—his term for the rising share of equities controlled by institutional investors—would render managerial control unassailable.

So what happened? The antimanagerial counterrevolution reflected concurrent changes of several kinds—economic, political, and ideological. The importance of ideology should not be underestimated. Economists in the field of "agency theory" put forth a compelling new image of the firm that very quickly shaped the thinking of investors, legal scholars, and managers alike (Fama 1980; Eisenhardt 1989). Their perspective had three significant tenets. First, they rejected the image, in their view sentimental, of the "soulful corporation"—the large company as an institution of intrinsic

value, bearing obligations to its employees and to the communities in which it operates, as well as to its shareholders. Instead they portrayed the firm as a mere administrative convenience, a "nexus of contracts" equipped to handle productive arrangements too complex or risky to be left to the market. This imagery entailed a heady view of management's power, indeed obligation, to reconfigure the firm as the balance of costs and benefits shifts between internalizing functions or purchasing them on the marketplace. Complementing this perspective was a new "finance conception of the firm" (Fligstein 1990) as a "portfolio of activities," to be assessed and revised regularly. In this view, companies are not bound to any particular business. Instead, the executive is a portfolio manager whose major responsibility is to analyze the performance of each of the company's divisions or "profit centers," and to sell off any that are underperforming relative to alternative investments. Third, the new finance economics defined the relationship of the manager to the shareholders as that of "agent" to "principal." As in any principal/agent relationship, the former should expect the latter to try to shirk their responsibility, and therefore should design systems to prevent that from occurring.

By the 1980s, investors were ready and able to assert their rights. As Michael Useem (1996) has explained, throughout the 1970s and, especially, the 1980s, shareholding became increasingly concentrated in pension funds, mutual funds, and insurance companies. To be sure, share ownership was spread across the millions of Americans whose funds these entities managed; but the power to vote the shares lay in the hands of a relatively small set of institutions. Two consequences followed. First, institutional investors owned so many shares that often they could not easily dispose of them, thus making the "Wall Street rule" of exit over voice increasingly impractical. Second, because institutional investing concentrated shareholding even in the largest companies, and because the major players knew one another, large investors could mobilize to challenge managers on their home turf. Thus the very development that Drucker (1976) believed would render managers all-powerful was to become the instrument of managerial capitalism's destruction.

Investors used several means to focus management's attention on profits during the 1980s. They were helped by the fact that the "liberal state" that the post-Marxian synthesis had taken for granted was governed in much of the West by conservatives like Ronald Reagan and Margaret Thatcher, who rejected most liberal orthodoxy. The new climate favored the ambitions of business interests, who organized politically to pursue the deregulation of financial markets, which in turn made it easier for investors to hold managers responsible for their performance and for managers to restructure firms (Vogel 1989).

First, newly empowered investors and their allies designed management compensation packages that tied executives' rewards to their firms' short-term financial performance through the generous deployment of stock options and bonuses. Second, during the 1980s a dramatic rise in the number of hostile takeovers (as well as quieter, behind-the-scenes coups), spearheaded an unprecedentedly vigorous "market for corporate control." By the end of the decade, managers realized that even if they could dominate their boards of directors, their companies could be sold out from under them. Third, by the 1990s, many managers had acceded to the new order, taking major investors into their counsel and pursuing many of the value-enhancing policies they recommended (Useem 1996).

The results of these developments were wide-ranging. One consequence with broad ramifications was a shift in the calculus of "make or buy" from the former to the latter, as firms tried to do fewer things more effectively and purchase the inputs and services they needed from other companies. Many companies were more willing to take relational risks, such as investing in new enterprises or developing ongoing commitments that made them more interdependent with suppliers. Firms focused on their core competencies, reevaluating the portfolio of businesses in which they were engaged. Often they sold divisions to other enterprises, or "spun them off" as new enterprises, sometimes (as in the case of Lucent Technologies, once the research and development arm of AT&T) with strong ties to the old.

The Social Contract Renegotiated

A second set of consequences of the antimanagerial counterrevolution entailed dramatic, ongoing cost-cutting efforts. Such efforts reduced the size of the corporate labor force, challenging the expectations of managers and workers alike. Pushed by investors (and, in many cases, by an increasingly global marketplace) to compete more aggressively, many companies reduced the size of middle management, shifted tasks from full-time employees to contingent workers and took back some of the advantages once associated with primary-sector jobs. Companies' ability to do more with fewer full-time workers was enhanced by developments in information technology that increased productivity and made it easier to monitor and control off-site employees.

These developments need not detain us long, for Walter Powell describes them thoroughly in chapter 2. For present purposes, three points are worth making. First, although the post-Marxian synthesis held that the rapprochement between trade unions and big firms in the United States and Western Europe represented a long-term solution to labor/management conflict, many U.S. business leaders had always regarded unions as unwelcome intruders and viewed worker's compensation packages in primary-sector manufacturing as a deplorable drag on company profits. For

such executives, increased competitive pressure from shareholders and the global market represented an excuse to accomplish what they had wanted to do all along.

Second, progressive management theorists had advocated a shift to team work and flatter organizational structures, and had called attention to exemplary firms that experimented with these approaches (Kanter 1983), well before the more widespread shifts in business practice that Powell describes. Management theories and organizational practices interact in complex ways. Management writers identify companies that employ innovative organizational designs that appear to embody principles they value; they promote these designs as models, but adoption is halting until and unless the business environment changes in ways that make companies search actively for alternative modes of organizing.

Third, the changes that occurred in employment relations, like the changes in company governance, posed a serious challenge to the post-Marxian synthesis. Suddenly, the "historic compromises" between European management and labor appeared less stable and conclusive; and the notion that the U.S. federal government colluded with leading business enterprises to preserve a mutually beneficial arrangement with the trade unions began to seem fanciful.

INTERFIRM ALLIANCES

The third challenge to the post-Marxian synthesis was an indirect result of the international search for models instigated by the Western industrial economies' prolonged slump in the late 1970s and early 1980s, and of the light that globalization of enterprise shed on industrial systems outside Europe and the United States. Just as Western observers first found the Japanese employment system exotic, but then, once they adjusted their conceptual lenses to take account of what they observed, began to perceive elements of it in their own societies, so the discovery of complex interfirm alliances in Japan and the "little tigers" of East Asia led Westerners to perceive for the first time the presence of networks in their own economies (Powell 1990; Granovetter 1993).

Whereas the rise of investor capitalism and concomitant revision of conventional understandings between primary-sector firms and their employees challenged specific tenets of the post-Marxian synthesis directly, the discovery of interfirm networks posed an even more radical challenge. The fact that many economies included groups of associated enterprises in which no single dominant firm could call the shots—and, *a fortiori*, of business networks in which corporate legal structures were draped lightly over underlying networks based on ties of consanguinity or shared ethnicity—raised fundamental questions about the nature of the firm itself, casting

into doubt assumptions about identity, agency, and legal personality that had long been taken for granted.

As is often the case, it was easier for Western observers to perceive a new form in a culture very different from their own. As Eleanor Westney explains in chapter 4, Western management writers began to explore the political economy of Japanese enterprise—and, in particular, the central role of vertical and horizontal business alliances, or *keiretsu*—only after concluding that the Japanese employment and production systems rested on too distinctive a foundation to be adopted in toto by Western firms. Westerners read with wonderment accounts of the then remarkably successful Japanese business system's complex interfirm networks (Gerlach 1992), and the ongoing relations with government that encouraged, supplemented, and sustained them (Dore 1986; Johnson 1982), all in the apparent absence of a functioning market for corporate control. Even more striking were the comparative studies that followed of Korean and Taiwanese variants: for, whereas, in Japan, the units that networks comprised were bureaucratic firms, elsewhere in East Asia the companies themselves seemed almost like epiphenomenal outgrowths of densely woven kinship networks (Orrù et al. 1997).

Once the logic of the intercompany group became explicit, such networks became visible throughout the world. Students of European capitalism had long noted the weakness of antitrust laws throughout that continent, and the absence of prohibitions, like those in the United States, of bank ownership of industrial concerns. Consequently, financial institutions played a greater role in the governance of economic life in much of Europe than in the United States, knitting companies together in what some viewed as bank-centered networks (Scott 1987). Moreover, political scientists had long recognized that European companies collaborated actively in the political arena through various kinds of industry associations that states regarded as legitimate negotiating partners (Streeck and Schmitter 1985).

Studies of "small-firm networks" (Sabel 1992) reported a different kind of business network—involving more reciprocity than bank-centered groupings and far more commitment than political associations—in the industrial regions of Northern Italy. Unlike the *keiretsu* of East Asia, these networks comprised small enterprises working together locally. As with the East Asian interfirm groups, relations with government were often close and supportive, but almost exclusively at the local level.

At the same time, scholars in the United States began to notice networks in that country's economy. The earliest research on interorganizational networks (aside from the copious but highly focused literature on interlocking directorates) concentrated on cooperation among philanthropists or nonprofit service agencies, both of whom, in contrast to for-profits, were

supposed to be mutually supportive (Warren 1967; Turk 1970; Galaskiewicz 1985). By the 1990s, scholars began to document interfirm networks in the for-profit sector as well (Powell 1990). At first, researchers described networks of small enterprises in atypical settings, especially immigrant communities in which entrepreneurs lacked ready access to capital and other benefits of the formal economy (Portes 1998; Waldinger 1986). Skeptics might dismiss such systems as anomalous and transitional accommodations to a particular economic niche. But other studies identified similar sets of stable relationships, sometimes entailing substantial long-term commitment, among long-established firms in competitive-sector industries like apparel (Uzzi 1997); and by the 1990s, as Powell notes in chapter 2, researchers found collaborative interfirm networks at the heart of the most vigorously entrepreneurial sectors of the U.S. economy (see also Aldrich 1999).

The terms "industry group" or "interfirm network" cover phenomena ranging vastly in the kinds of companies that participate, the number of firms and the amount of assets involved in the collaboration, the scope and duration of relationships, and the types of ties with which business partners are bound. As Kraakman points out in chapter 5, the Japanese vertical *keiretsu*, with its strong interfirm hierarchy, clear leadership role, and management dominance, raises few problems for the post-Marxian synthesis. By contrast, horizontal alliances of the kind that David Stark describes in his chapter are more startling in their implications, suggesting in some cases a reckless disregard (at least by the old rules of economic organization) for company autonomy, and in others a virtual mutation of conventional forms of agency, as hydra-headed interfirm networks replace corporations as the key actors in significant economic sectors.

Taken together, the assault on managerial capitalism changes in terms of employment for both managers and blue-collar workers, and the worldwide discovery of the role of interfirm networks and company groups set the post-Marxian synthesis on its head. Stable accommodations among independent companies, and between such companies and their workers and national governments, appeared to be breaking down, as new developments augured sharpened competition among new types of business entities.

The Organization of This Volume

The challenges to the twentieth-century model of the firm—to Weber's model of the bureaucratic enterprise and to the post-Marxian account of the systemic logic of advanced capitalism—have yielded a range of contradictory characterizations rather than a clarifying new synthesis. On the one hand, hierarchical bureaucracy is said to be yielding to more empowering

and commitment-inducing systems of management. On the other, jobs and firms are becoming decoupled, with workers experiencing unprecedented career insecurity. At the same time that observers note a renewal of economic rivalry they also describe unprecedented forms of collaboration throughout the world's economies. Clearly the trends observers have discerned do not all point in the same direction, nor are contemporary corporations marching in lockstep along a single trajectory.

It is the aim of this volume to summarize what we know about the twenty-first-century firm—about its structures, strategies, and forms of governance—and to clarify the issues at stake. Each of the next three chapters describes contemporary change in business enterprises in one part of the world. These are followed by four commentaries that assess the first three authors' accounts in the light of particular theoretical perspectives.

In chapter 2, Walter Powell describes how firms in the United States and Western Europe—especially firms in the most technologically intensive and rapidly developing sectors of the economy, but also companies in traditional manufacturing sectors stung by global competition—have altered their management structures, labor relations, and forms of collaborating with other companies. Powell, whose paper "Neither Market nor Hierarchy" (1990), did much to define the current debate, contends that we are witnessing "the outlines of a fundamental change in the way work is organized, structured, and governed," a nascent new logic rooted in "a growing institutional infrastructure of law, consulting and venture capital firms." Throughout much of the economy, and especially among new firms, hierarchies are flatter, headquarters staff smaller, and collaborations more numerous than in the past, as firms compete for rich payoffs in high-tech "learning races." Companies use more contingent workers as projects replace "jobs" as the basic unit of work, and people's careers increasingly span business units and firms. Networks of relations among firms are thicker: small firms cohere into "virtual firms" whose success depends on the quality of their networks; while large companies, aiming to remain focused on core competencies, spin off and maintain close relations to enterprises that once would have been corporate divisions. Although Powell believes that fundamental changes are taking place, the ultimate destination of such change is still uncertain. Some companies, he suggests, will take the "low road" of simple integration, switching contractors based on cost considerations at a moment's notice and demanding much of their employees while offering little. Others will take the high road, maintaining long-term networks, the relationships in which become significant corporate assets, and fostering worker empowerment by offering ongoing training and commensurate rewards for the deeper engagement and greater accountability demanded of workers. The balance between them, and the ultimate impact of these changes, will depend in part on political choices

about the extent to which governments will invest in their citizens and maintain credible "social safety nets" to soften the impact of economic change.

In chapter 3, David Stark describes the transformation of economic structures in post-socialist Hungary and the Czech Republic, as managers work with institutional resources and interpersonal networks left by socialism to improvise capitalist economies in a period of rapid change and political instability. The most striking feature of the postsocialist landscape is the multiplicity of institutional logics (principles of organization and legitimacy) competing for dominance. Stark warns against premature efforts to converge upon a single model, and praises the nurturance of ambiguity as a strategy well suited to the uncertainty and multivocality of the Eastern European economies. The entrepreneurs he studied draw on many assets, models, and discourses to cobble together companies through a process he describes as "recombinant bricolage." The firms that result, like those of Western high-technology industries, are decentralized, with interdependent departments, much lateral communication, and flexible business strategies. The processes used to privatize state enterprise throughout the socialist world have led to the emergence of complex, heterogeneous networks, knit together by cross-shareholding among firms. Stark characterizes these "complex network[s] of intersecting alliances" as "heterarchies," or "complex adaptive systems" that "interweave a multiplicity of organizing principles" to adjust to multiple environments. These heterarchies, he argues, are the real economic actors in Eastern Europe, sharing assets, discovering strategies through action, and retaining options during an era of rapid change. The challenge they face is to combine the suppleness that is their great advantage with the accountability that investors and regulatory agencies will require. Like Powell, Stark believes that a new kind of enterprise system is emerging, and that its precise form will depend on government policies, especially the ability of the state to develop a suitable framework for regulating the new economic entities.

In chapter 4, Eleanor Westney describes emerging trends in Japanese firms. Japan was the model for many aspects of the flat, flexible, high-commitment, collaborative organizational structures that Powell describes in the West; and Stark's Hungarian business networks bear a notable likeness to some kinds of Japanese *keiretsu*. Westney distinguishes among several aspects of the Japanese system. The Japanese employment system, which governs the work lives of primary-sector male employees, is based on lifelong employment, rewards for seniority and collective performance, and ongoing training. In the Japanese production system, a learning system focused on continual improvement, jobs are defined broadly, with workers assigned to task-oriented "activity clusters" organized to harness the knowledge of all employees. Firms maintain close relational contracts with

suppliers, whom they integrate into product design and production, and work continuously with customers in order to produce frequent product changes in response to market demand. Finally, the Japanese governance system entails both vertical and horizontal company groups, or *keiretsu*, linked by copious flows of capital, personnel, and communication, which both enhance economic coordination and buffer managers from the market for corporate control. Ironically, just as aspects of the Japanese model gain acceptance throughout the world, Japan itself, which has suffered from more than a decade of sharp economic recession, is suffering a crisis of confidence. At the onset of the millennium, writes Westney, "the Japanese firm looks more like the apotheosis of the firm of the twentieth century, not the harbinger of the next." Japanese companies face intense pressure to adopt aspects of the Western model, especially those that increase accountability to shareholders and reward employees according to individual performance. Westney believes that Japanese firms will accommodate these demands without relinquishing their dependence on strong networks, creating a different and still distinctive form of capitalism.

The second of the book's two major sections contains four essays that reflect on the arguments of the three regional chapters from distinctive analytic perspectives. In chapter 5, Reinier Kraakman, a legal scholar whose work spans the boundary between law and economics, takes a skeptical view of the argument that the firm of the twenty-first century will differ fundamentally from its twentieth-century counterparts. "The corporation as we know it," he contends, "is too useful to disappear, or even to change all that much." Kraakman argues that the key aspects of the corporate form—legal personality, ownership by investors who are residual claimants, centralized management and governance by a board, limited liability, and transferability of shares—are direct responses to the need for firms "to raise capital, control agency costs, facilitate decision making, and allocate risk," and are thus unlikely to be supplanted. Vertical groups may play limited roles when a lead company can exercise effective authority, and autonomous firms may collaborate through informal networks to pursue their individual goals. But Kraakman believes that interfirm relationships that diffuse responsibility or separate ownership from control—for example, Japan's horizontal *keiretsu*, or the cross-shareholding arrangements of Hungary's multi-firm networks—will yield to increasingly standardized securities laws that will converge cross-nationally in response to business's interest in minimizing the cost of capital.

In chapter 6, David Bryce and Jitendra Singh comment upon the three regional contributions from the standpoint of evolutionary theory. Based on a taxonomic approach that distinguishes organizational forms on the basis of goals, authority relations, technologies, and markets, they argue that, despite apparent similarities, Western "alliance networks," the in-

terfirm groups of Hungary and the Czech Republic, and Japan's vertical and horizontal *keiretsu*, are distinctive forms, adapted to quite different selection pressures. Moreover, they note that each form will experience different national selection environments, with variation in the stability of free-market legal institutions especially consequential. They also call attention to the fact that different units of selection are nested within interfirm networks, and that actors at each level always attempt to shift both risk and selection pressures upward or downward. Thus vertical *keiretsu* use low-status affiliates as shock absorbers for the core firm, and high-technology alliances shift risk from participating firms to the more fragile network and to contingent workers outside the firm. From an evolutionary perspective, convergence of organizational forms requires convergence of environments. Bryce and Singh describe many factors that may make business environments more similar in different countries, but argue that persistent, path-dependent institutional differences make the international convergence of capitalist forms extremely unlikely.

In chapter 7, Robert Gibbons comments on the regional chapters from the perspective of the economics of the firm, focusing on the circumstances under which cooperation between a firm and its suppliers is preferable to integration. Like Bryce and Singh, Gibbons calls attention to the differences among the "network forms" that Powell, Stark, and Westney describe, and argues that the prevalence of networks of companies bound by relational contracts depends on complex sets of contingencies. Gibbons argues that companies decide whether to make or buy a product—and whether to engage in long-term cooperative relationships with suppliers or to keep them at arm's length—on the basis of the relative costs of these arrangements after all parties have taken into account the risks associated with each. From this perspective, then, the design problem is one of "optimizing the boundary of the firm." Consistent with Powell, Stark, and Westney's arguments, Gibbons suggests that rapid economic and technological change creates an economic calculus that favors relational contracting over integration, whereas stagnation or stasis shifts the balance in the opposite direction. Given the delicacy of this balance and its dependence on the details of particular markets, it seems unlikely that costs will shift sharply enough to lead to wholesale restructuring of the corporation, although continual incremental change in the firm's boundaries is to be expected.

Finally, in chapter 8, Charles Tilly, a sociologist whose work spans the fields of comparative history, comparative politics, and the study of labor markets and inequality, takes the long perspective on organizational change, and suggests that the twentieth-century firm was a historical anomaly, based on a unique convergence of organizational form and state structures. Bureaucratic firms, argues Tilly, need strong states to establish and protect a legal framework for exchange. Strong states have relied on

productive organizations (in the West, market enterprises) for economic stability, tax revenues, and other types of support. This alliance was fine while it lasted, but it is faltering today due to the increasing weakness, and declining ability to secure their boundaries, of nation-states throughout the world. As the state system declines, writes Tilly, so will the impersonal bureaucratic corporations that have relied on it. Instead, entrepreneurs of the future, like entrepreneurs throughout most of human history, will rely on "trust networks" based on kinship, ethnicity, propinquity, or culture to get things done. In his view, the "network forms" of enterprise described by the authors of the three regional chapters, and especially the network forms of Eastern Europe with its weak nation-states and underdeveloped legal frameworks, are harbingers of an uncertain future. Or, as Tilly succinctly puts it in the title to his essay, "Welcome to the Seventeenth Century."

In chapter 9, I identify common themes and key differences among the contributors' essays and articulate some questions that may repay researchers' attention. I begin by arguing that the "network form" is really several forms, rarely mutually exclusive, and suggest that change must be monitored at the level of national economies and industries as well as at the level of the firm. Nonetheless, there are common themes in the chapters that may be integrated to create a model of the "twenty-first-century firm," about which I raise several questions. First, how strong is the evidence for its component parts at the levels of the organization itself (for example, labor relations, the division of labor, customer-supplier relations) and of the system as a whole (for example, the role of networks in economic agency and governance)? Second, in so far as there is evidence that particular developments are, in fact, taking place, what reason is there to believe that they together constitute a new form of organizational and system logic—that is, that these changes cohere into a system of mutually implicated parts? Third, in so far as a new logic of organizing is emerging, what are the prospects for cross-national convergence around this new model of the firm? Finally, what is the relationship between practice and ideology in these developments? To what extent are we witnessing actual changes in corporate practice, and to what extent is the revolution primarily in the categories and scripts we use to perceive and comprehend corporate structures and behavior?

At this point, no one has all the answers. But by providing deeply informed accounts of the main lines of organizational change in significant portions of the world, and by holding these accounts up to the light of several theoretical traditions, the essays in this volume both aggregate current understandings and bring the questions into sharper focus.