# The Rise of the Megacorporation

**Scale and Scope**. The Dynamics of Industrial Capitalism. ALFRED D. CHANDLER, JR., with the assistance of Takashi Hikino. Belknap (Harvard University Press), Cambridge, MA, 1990. xx, 860 pp. $35.

In a previous, pioneering book, *The Visible Hand: The Managerial Revolution in American Business* (Harvard University Press, 1978), Alfred Chandler, the dean of American business historians, detailed the advent of *managerial capitalism* and the ascendancy of the large-scale, multidivisional public corporation. As it came to dominate the American economy in the late 19th century, the modern business enterprise (Chandler's term; hereinafter MBE) thrust aside traditional, small-unit, family-oriented proprietary enterprise, thereby transforming the social foundation of the American political system. Mostly by sheer size and the consequent preemption of large shares of major markets, the modern business enterprise achieved for a private-sector agency unprecedented power over the allocation of the nation's resources and rewards. It did this through its capacity to manage prices, alter work patterns, manipulate supplies, fix product and quality standards, and even influence consumer demand, while its management gained the leverage to put its calculation of the long-term interests of the corporation over and against the perceived interests of stock-owners as well as employees and consumers.

Historians have offered a variety of explanations for how this came about, but most have agreed that the ascendancy of the MBE was not something the American public on the whole favored. Indeed, Chandler remarked bluntly at the end of *The Visible Hand:*

> At least until the 1940s, modern business enterprise grew in spite of public and government opposition. . . . The concentrated economic power such enterprises wielded violated basic democratic values. Their existence dampened entrepreneurial opportunity in many sectors of the economy. Their managers were not required to explain or be accountable for their uses of power. . . . Yet [reform] legislation did little to retard the continuing growth of the new institution and the new class that managed it.

In Chandler's analysis, the ineffectuality of public policy to thwart the ascendancy of the megacorporation owed to the impersonal and much greater force of the market and of technology. Technology, exploiting coal resources and steam power, created a transportation revolution that radically enlarged the available market, thereby inviting large-scale production, processing, and distribution—and also the large-scale, multi-tiered managerial organizations that such operations demanded. Those firms that neglected to respond to the opportunities or imperatives of the market by investing in newly available technology, utilizing economies of scale, and building managerial hierarchies commensurate with large-scale operations, simply became uncompetitive and died. Reaching laterally to absorb weaker competitors, upstream to guarantee raw materials and supplies, downstream to ensure sales outlets and services needed for maintaining high-volume production, and sometimes overseas to get behind trade barriers and forestall foreign competition, the successful firms overrode the market itself. The modern firm internalized the multiple transactions once coordinated by the market among different, usually single-function firms. "Administrative coordination," Chandler wrote, "permitted greater productivity, lower costs, and higher profits than coordination by market mechanisms." Given the overhead costs as well as the speed-and-volume capabilities of modern technology, moreover, the optimal scale of operations, especially in most capital-intensive industries, required preemption of major shares of whole markets. And so, "Markets and technology," Chandler wrote, "had a far greater influence in determining size and concentration in American industry than did the quality of entrepreneurship, the availability of capital, or public policy."

In the present volume, Chandler continues the story by carrying his analysis to Europe. *Scale and Scope* compares the evolution of modern British and German business management with that of the United States. Like *The Visible Hand*, this volume examines in massive detail the history of hundreds of individual business firms—in this book, the 200 largest manufacturing companies of each of the three countries studied—to document essentially the same conclusions: Successful companies were those that (i) invested in new high-volume, high-speed technology to exploit economies of scale and scope, (ii) developed national and international marketing networks, and (iii) put capital into a multi-tiered, multi-divisional management system to monitor and coordinate the large-scale production and distribution functions. The Americans and Germans were most successful in doing this, while the British responded slowly to modern business imperatives, thereby losing ground to their rivals, and in some major industries failing altogether.

The differences in response to the challenges of the industrial environment Chandler attributes to different legal, political, and social environments. The Germans overcame a late start by (i) fostering "cooperative capitalism" (state-encouraged cartel and pooling arrangements to overcome the disadvantages of the market), (ii) innovative investment-banking entrepreneurship, and (iii) developing an unparalleled educational system that worked closely with the industrial community to exploit the major sciences underlying the Second Industrial Revolution—chemistry, electricity, and metallurgy. The Americans, blessed with a relatively insulated, large, and spectacularly growing domestic market and unburdened by constricting traditions or a strong central state, sailed strongly through the Second Industrial Revolution even though the legal structure (antitrust laws) favored a "competitive capitalist" model. In the British case, the force of tradition effectively overrode strictly economic rationalism until at least the second quarter of this century. British businessmen tended to treat the firm as a patrimony, preferring hands-on management even when expansion (scale) and product diversification (scope), which required delegating power to a network of professional managers, would have made the firm more competitive. They also appear to have preferred taking earnings in dividends rather than reinvesting in modern industrial, management, and marketing techniques.

The imperatives of scale and scope necessitated oligopolistic domination of markets, at least for the more capital-intensive industries. The Germans achieved such dominance through cartel arrangements, associations of firms that purported, with varying success, to fix prices, allocate market shares and licensing privileges, and assign production quotas. The Americans achieved it primarily through mergers, insofar as the Sherman Antitrust Act was interpreted to preclude cartel-like collusion among several firms. And how did the Germans avoid the stultifying effect of monopoly? "The great importance of the international market,"

Chandler remarks, "provided a constant goad for German firms to maintain their facilities and to sharpen their functional, technical, and strategic skills that might otherwise have been diluted through cartels and other interfirm agreements." Although the international market was not nearly as important for the Americans, presumably it remained interesting, and over time grew increasingly interesting, especially when, by the late 20th century, foreign firms began making the U.S. domestic market part of the international market.

As in the earlier book, Chandler challenges the neoclassicist theorists who view oligopolistic behavior as inherently inefficient. They fail, says Chandler, to treat the firm "as a dynamic organization." Hence they miss the point that the modern industrial enterprise created "the most technologically advanced, fastest-growing industries of their day," and "were the pacesetters of the industrial sector of their economies." But, as in the earlier book, Chandler may be engaging in some tautological reasoning. There is as much reason to believe that "the fastest-growing industries" evolved into or came to be dominated by oligopolistic structures as that oligopoly had something positive to do with producing fast-growing industries. And if they remained "the most technologically advanced," is that because oligopolistic competition contributes more effectively to innovation than does more open-market competition, or because oligopolistic power can serve to suppress new market entries and even new technologies? Chandler acknowledges that most inventions typically come from small firms or independent entrepreneurs, but points out that most of the crucial innovations that perfect an invention and make it usable (and marketable) come from the big corporations. But of course that, too, may owe less to the bully progressiveness of the oligopolists than to their bullying power.

As in the earlier book, Chandler continues to assume an equivalence between business efficiency and economic efficiency. The modern industrial enterprise (MIE) triumphed, Chandler tells us, because managed procurement, production, and distribution transactions proved more efficient than the invisible hand of market forces. But more efficient for what? We can accept the obvious point that to a considerable extent the MIE streamlined the coordination of high-volume "throughput" and "stockturn." But Chandler does not indicate when "efficiency" means effectiveness toward the long-term viability of the firm rather than effectiveness toward satisfying consumer preferences at minimal consumer (and social) costs. When Chandler describes how the American merger movement in the late 19th century permitted market reorganization to augment "market power through functional and strategic efficiencies," he is clearly suggesting business efficiencies that may but probably do not have anything to do with economic efficiency. In the early stages of the history of the MIE, the prosperity of the firm and optimal consumer satisfaction probably coincided rather well. But once oligopoly was established, once barriers to entry afforded security for stable and profitable price levels, once the goad of international competition weakened as the strength of "cooperative capitalism" grew, once managerial bureaucracies developed a life of their own, as Chandler points out they do, it is reasonable

to surmise that the two kinds of efficiency diverged. In neither *Scale or Scope* nor *The Visible Hand* does Chandler offer insight into when such divergence may have occurred in any particular industry, how large the divergence may have been at any particular time, and whether there is evidence from which we can judge whether the costs to the consumer or society were nevertheless minimal in view of the probable costs of possible alternative or modified industrial organization.

In *Scale and Scope* Chandler offers none of the concern he expressed in *The Visible Hand* about the undemocratic and sometimes unproducive power of the megacorporations that have come to dominate the modern political economy. He discusses almost casually the international cartel arrangements that became essential parts of managerial strategy for the MIE. Conspicuously missing is any consideration of how reciprocal arrangements among the cartels may have repressed technological innovation for any period of time; or of how the use of market power in one area will create competitive advantages entirely unrelated to economic efficiency in others; or of the degree to which advantaged access to markets and financing will conceal gross inefficiency in production units. Yes, of course, changes in geopolitics and in technology periodically reopen competition (witness the effects of jet transportation and the telecommunications revolution), but what of the short-term dysfunctional effects in the absence of the goad of competitive markets?

None of this is to gainsay Chandler's brilliant achievements. *Scale and Scope* is a masterly exercise in comparative history. It takes the history of modern industrial capitalism out of the hands of the polemicists who attribute its ascendancy to "robber barons" on the one hand or to the benign workings of the "free market" on the other. Chandler has redefined entrepreneurship to include, perhaps above all, those who fashioned the innovative managerial structures indispensable for coping with the demands of new technology and of vast and expanding market operations. While continuing, as in the earlier book, to cite the imperatives of technology and expanding markets, Chandler now gives greater emphasis to "the critical importance of organizational capabilities." Without appropriate legal, cultural, and human resources the opportunities presented by technology and markets will draw no effective response. It is a lesson today's striving political economies dare not ignore.

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## Cognitive Adaptation

**Vision and the Emergence of Meaning**. Blind and Sighted Children's Early Language. ANNE DUNLEA. Cambridge University Press, New York, 1990. xvi, 196 pp., illus. $39.50.

Interest in, and theories about, the development of language by young children have proliferated over the past 25 years. Studies of children who are in some way deprived of the normal perceptual experiences ordinarily thought critical to language—such as those born deaf or blind—have been undertaken in an attempt to resolve some of the theoretical debates, as well as to elucidate the development of such children in their own right. *Vision and the Emergence of Meaning* focuses on the early language development of children whose vision is grossly impaired and compares them with normally sighted children. The description it presents contrasts with that of a previously published study with similar goals, Landau and Gleitman's *Language and Experience: Evidence from the Blind Child* (Harvard University Press, 1985). The story Dunlea tells is closer to the traditional view of the blind child as different if not deficient in language acquisition, in contrast to Landau and Gleitman's claims of essential similarity between the language of blind and sighted children.

Dunlea's study reports on six children, four blind and two sighted, between the ages of roughly one and two years. She closely examines the development of vocabulary, construction of propositions (early grammar), and expression of illocutionary force during this period. The picture she presents is of children actively calling on all available cognitive resources to make sense of the world and the language surrounding them. At the same time, she recognizes cognitive deficits that present barriers to the blind child's normal progress in conceptualization and linguistic realization of meaning. In particular, her studies of the children's early vocabularies and their use of words indicate that, although their vocabularies seem similar to those of sighted children along such lines as the proportion of object names, they reveal restricted capacities for generalization and categorization. Additional observations reveal an almost total