

## Competition Management

### The Transformation of Corporate Control.

NEIL FLIGSTEIN. Harvard University Press, Cambridge, MA, 1990. xii, 391 pp. \$35.

Criticism of economics by sociologists is not new, but in recent years such criticism has been growing. Some sociologists have attacked as unrealistic the *Homo economicus* assumptions of economics (for example, Etzioni in *The Moral Dimension*). Others have taken aim at the idea that efficiency incentives determine economic institutions and events, emphasizing instead the social, political, and cultural "environment" to which the economy is inextricably bound (see for example Dore's *Taking Japan Seriously* or Swedberg's *Economics and Sociology*). In his new book, sociologist Neil Fligstein uses these arguments to recast the historical development of the large U.S. corporation from the late 19th century to the present. Fligstein contests the view—held by mainstream economists and by business historian Alfred D. Chandler, Jr.—that changes in corporate structure were primarily driven by market forces. Instead, says Fligstein, the large corporation developed in response to government regulation (primarily antitrust law) and to shifting managerial conceptions of what constituted best practice. Corporate organization, in other words, is only partly an economic phenomenon. This leads Fligstein to conclude that today's large U.S. firms, with their heavy dependence on financial controls, may be efficient in the short term but could prove disastrous to our economy in coming years.

This is an ambitious argument. Unfortunately, the book's reach exceeds its grasp. It contains little new research on corporate history and evidences limited knowledge of economics. (No appraisal is given of the transaction-cost approach to industrial organization, which currently holds sway among economists.) Also, Fligstein rarely discusses efforts of other social scientists who, like himself, are seeking to define links between the economy, society, and politics. Hence this book will fail to persuade mainstream economists and economic historians. And it offers little to those already convinced that something is awry in mainstream economics. Still, Fligstein's topic is of great importance.

The book is organized around shifts in "conceptions of control," which are managerial paradigms of how best to solve competitive problems facing large firms. Since 1880, says Fligstein, there have been four such conceptions: direct control of competition (to 1900), manufacturing control (1900–1925), sales and marketing control (1925–1955), and, most recently, finance control. These conceptions emerge "from interaction among leaders of large firms and are conditioned by the state" (p. 12). Each conception has associated with it a limited number of business strategies, which, in turn, have implications for the large corporation's optimal structure (whether it should be, say, a holding company or a multidivisional firm). Control conceptions change when government policy or economic conditions reduce the perceived profitability of an earlier conception. Perceptions matter because firms adopt new control conceptions partly as a result of power struggles within the firm's management.

There is a mechanical quality to this argument that historians will find bothersome. In the real world, control conceptions did not neatly follow in serial stages. For instance, Eastman Kodak in the late 1890s simultaneously pursued strategies associated with three different control conceptions: predatory competition (direct control); horizontal and vertical integration (manufacturing control); and product differentiation and advertising (sales control). Kodak was not atypical. Fligstein is to be credited for rejecting the teleological idea that each new corporate structure was more efficient than the one preceding it. Yet he gives little explanation of how environmental factors other than antitrust law "select" for new corporate forms. The end of the book notes structural differences between large firms in the United States, Germany, and Japan. Accounting for this variation requires attention to banking structure, technology, timing of industrialization, business-society relations, and cultural norms. Yet none of these subjects is mentioned in the preceding 300 pages.

The weakness of Fligstein's approach can be seen in his account of the rise of sales control and corporate diversification, which he attributes to the appearance of visionary

sales managers who realized that "the ultimate goal of business was selling, not controlling prices" (p. 123). But this factor pales in comparison with those emphasized by economic historians. During the 1920s, as a result of rising living standards, U.S. industry structure was shifting from producer goods like steel and machinery to consumer goods like automobiles and radios. Selling to consumers requires more sophisticated marketing than selling to producers. And consumer goods are more capable of diversification and price cuts because they are less capital-intensive and more price elastic and use more fungible resources such as research laboratories. Fligstein says that the sales conception of control provided a new rationale for business after 1920. It is more accurate to call it a rationalization.

Then there is Fligstein's account of the conglomerate mergers of the 1960s and 1970s, which led to the emergence of finance control. Here Fligstein gives heavy weight to the Celler-Kefauver Act (1950), which made it harder for firms to pursue horizontal and vertical mergers. With these mergers blocked, says Fligstein, the pace of unrelated mergers picked up. Surely there is something to this. Yet there is a danger here of the *post hoc ergo propter hoc* fallacy. One would like to see rigorous testing of the proposal that shifts in antitrust law caused shifts in industrial structure. Fligstein tries to supply this, but his quantitative tests are simplistic and rely on dummy variables that obscure more than they reveal.

This is not to say that antitrust is unimportant to corporate structure or that businessmen are unaffected by shifting ideas, some of which, as in the case of leveraged buyouts, may turn out to be fads. But it is a weak foundation for the book's final argument: that the finance conception of control—the dominant paradigm in large U.S. firms today—is a danger to the future health of the economy. Fligstein asserts that the preoccupation of American firms with finance, rather than production or sales, is efficient only in the sense that managers have adapted to our current laws and business norms. The large U.S. corporation, in other words, is locally but not globally (or optimally) efficient. Yet Fligstein presents little evidence to support this claim. Studies by economists (missing from this book) are ambiguous regarding the long-term effects of leveraged buyouts and finance control. American multinationals are still doing rather well in capturing markets around the world. Even many leveraged buyouts are proving profitable thus far.

Fligstein is surely onto something. Had he chosen to systematically study differences between large American firms and those in

other nations, he could have convincingly demonstrated how cultural and political forces shape the business corporation's development. Mainstream U.S. economists are usually ethnocentric and overly wedded to the idea that our economic institutions are socially optimal. Sociology has much to contribute to the remedying of those faults. But this book is a poor demonstration of that claim.

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## A Biomedical Success

**Patenting the Sun.** Polio and the Salk Vaccine. JANE S. SMITH. Morrow, New York, 1990. 413 pp. + plates. \$22.95.

Jane Smith's account of the development and clinical trial of the Salk polio vaccine is dramatic, suspenseful, exciting, sad, touching, and detailed. Her book belongs to a genre of scientific tell-it-as-it-was in which the science is shown as deeply embedded in society, which does not simply provide a distant ideological background for it but brings it into existence, or blocks it, in a very direct way. An earlier example having to do with medical research is David Zimmerman's *Rh: The Intimate History of a Disease* (1973), which starts out by saying that it is about scientific creativity but is really about the struggle for funding.

This book, too, is about funding and politicking. Although the costs involved were enormous, the money for the development and testing of the Salk anti-polio vaccine was raised not from state or government, which were scarcely involved at all at any stage, but directly from the people in what may be uniquely American, "democratic" style. The author suggests, and this is a most interesting suggestion, that it was the public participation in the fundraising for polio research and the successful outcome of the effort that have formed the public paradigm of an all-powerful medical science. For a post-polio generation, children are expected to be healthy, and science is expected to be able to find a cure for anything, given enough funds.

In all applied science, research falls somewhere along a line stretching from basic science to the demands of the economic client. Where it falls in any given case is probably determined by the institution in which the work is done. In this case, however, no institution provided Jonas Salk with a context in basic science, and there was no network of colleagues to enfold him, or to

recommend him for a Nobel Prize. The National Foundation for Infantile Paralysis owned the means of production: the client in this case owned the scientist outright. The picture of the relationship between Salk and the National Foundation is full of slightly snide insights, based quite firmly on the data, but tinged with pity. Of Salk's first contact with the Foundation Smith writes (p. 111): "Salk was proud of having maneuvered around a restrictive budget to find another source of money, but he was now working with people far wiler than he. Their scheming was to get someone to find an end to polio. Dr. Salk fell gladly into their toils."

The account of the National Foundation for Infantile Paralysis, its March of Dimes fund-raising campaigns, its internal politics, and its relations with Jonas Salk is solidly based on the Salk papers at the University of California, the Thomas Francis papers at the University of Michigan, and a large number of personal interviews, as well as the usual published scientific material. Smith's style is colorful, even perhaps, quite appropriately in the circumstances, *popular*, but her research outdoes the most meticulous Ph.D. thesis. This is a book that is both readable and insightful. Your reviewer enjoyed it and also learned a lot from it.

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## Science in New York

**Knowledge, Culture, and Science in the Metropolis.** The New York Academy of Sciences, 1817–1970. SIMON BAATZ. New York Academy of Sciences, New York, 1990. x, 269 pp., illus. Cloth or paper, \$55. *Annals of the New York Academy of Sciences*, vol. 584.

At the outset of his study of the New York Academy of Sciences, Simon Baatz notes that he has little interest in the organization's internal features, its officers, finances, and administration. Rather, the political and cultural factors that shaped the institutional development of science in New York City and the impact those developments had on the Academy's history are the focus of this work. The result is a lively, insightful book that offers the first extended analysis of science in New York City.

Baatz examines the history of the Academy in relation to institutional developments on a local and national scale. The Academy, first known as the Lyceum of Natural History, was created in an auspicious

political environment that favored the interests of a coterie of naturalists and physicians. Subsequent efforts to obtain a permanent location for its meetings and collections led to temporary alliances or negotiations with New York University, City College of New York, and Cooper Union. In addition to describing the development of those institutions, Baatz analyzes a more significant problem: how the Lyceum, a local natural history society, responded to the challenges posed by the emergence of national scientific organizations and increasing scientific specialization. In New York the establishment of the American Museum of Natural History and the transformation of Columbia College into a major university presented problems for an institution that had emphasized research and public education. Deftly weaving together local and national developments, Baatz describes the emergence of the Academy as an umbrella organization for specialist scientific societies. Rather than declining as a result of specialization, the Academy emerged as an important metropolitan forum for scientists becoming increasingly isolated by disciplinary developments.

Baatz studies the changing character of the Academy by focusing on prominent figures who dominated its activities. Samuel Latham Mitchell, John Torrey, John William Draper, and Charles Frederick Chandler are among those he examines in some detail. Particularly noteworthy is his study of two figures who transformed the Academy: Nathaniel Lord Britton and Eunice Thomas Miner. Britton, a botanist best known for establishing the New York Botanical Garden, played a pivotal role in changing the Academy into an umbrella organization. Miner, a zoologist who became the Academy's executive secretary in the 1930s, transformed a local body of 300 members into an internationally renowned society of over 26,000 members. Through his ability to describe their scientific contributions and define their political and administrative talents, Baatz provides new insights into the work of those prominent New York scientists.

The focus on notable individuals and external relationships also highlights weaknesses in the book. At times the discussion of scientific organizations, for example the Torrey Botanical Society or the Scientific Alliance, takes on a life of its own; only after several pages does the reader realize the connection to the Academy. Despite the author's discussions of the work of Torrey, Draper, and Chandler it is unclear whether the Academy took up their interests in its meetings or publications. Baatz offers little analysis of the scientific preoccupations of