The great merger movement in American business, 1895–1904

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1. Introduction

Between 1895 and 1904 a great wave of mergers swept through the manufacturing sector. Nothing like it had ever been seen before, or has been seen since. Although subsequent waves of mergers have occurred, they have typically involved the acquisition of one or more small firms by a larger competitor or, more recently, by a firm in a completely different industry. By contrast, among turn-of-the-century mergers, the predominant process was horizontal consolidation – the simultaneous merger of many or all competitors in an industry into a single, giant enterprise.[1]

Although some manufacturers had previously organized consolidations, there had never been so many in such a short time. The formation in 1882 of the Standard Oil Trust, the first consolidation, had stimulated a few imitations in the sugar, whiskey, lead, cordage, cottonseed-oil, and linseed-oil industries. New Jersey's passage in 1888 of a general incorporation law for holding companies gave the merger movement another shot in the arm, but it was not until the late 1890s that the idea of consolidation really caught on. In 1895, four consolidations were organized; in 1897, there were six. Then, in 1898, the number of new combines suddenly rose to sixteen, and, in 1899, to a high of sixty-three. By the next year the movement began to taper off. Twenty-one consolidations were formed in 1901, seventeen in 1902, and a scant three in 1904 (Table 1.1).[2]

[1] From 1895 to 1904, 75 percent of the firms that disappeared into mergers joined consolidations of five or more enterprises. During the next wave of mergers, 1915-20, this figure fell to 14 percent. Ralph L. Nelson, *Merger Movements in American Industry, 1895-1956* (Princeton University Press, 1959), p. 53; for a general description of the turn-of-the-century merger wave, see pp. 33-70.

[2] This time series is based on the unpublished list of mergers Nelson compiled for his study *Merger Movements in American Industry.* I included in the series only horizontal consolidations of at least five previously competing firms. According to Hans Thorelli, who also compiled a list of mergers, 57 consolidations were organized from 1890 to 1893, 27 from 1894 to 1897, 186 from 1898 to 1901, and 34 from 1902 to 1903. However, Thorelli's list, especially for the early years, includes many firms that would not meet my criteria – firms such as Atlas Tack, Colorado Fuel and Iron, and Wheeling Steel and Iron, which involved mergers but were not true consolidations. Hans B. Thorelli, *The Federal Antitrust Policy: Origination of an*

Table 1.1. *Number of consolidations formed per year in the manufacturing sector*

Year	Number	Year	Number
1895	4	1900	21
1896	3	1901	19
1897	6	1902	17
1898	16	1903	5
1899	63	1904	3

Source: See Note 2.

Brief as the merger movement was, it threatened to make radical changes in the competitive structure of American industry. All told, more than 1,800 firms disappeared into consolidations, many of which acquired substantial shares of the markets in which they operated. Of the ninety-three consolidations whose market shares I have been able to trace, seventy-two controlled at least 40 percent of their industries and forty-two at least 70 percent. Even assuming that none of the remaining mergers achieved significant market power, this still means that more than half of the consolidations absorbed over 40 percent of their industries, and nearly a third absorbed in excess of 70 percent (Table 1.2).[3] Moreover, though some of the consolidations

American Tradition (Baltimore: Johns Hopkins Press, 1955), pp. 294-303. See also Alfred D. Chandler, Jr., *The Visible Hand: The Managerial Revolution in American Business* (Cambridge: Harvard University Press, 1977), pp. 320-34.

[3] Market shares are for dates as close as possible to the formation of the consolidations, with the term "consolidation" defined as in Note 2. My main source for these figures is John Moody, *The Truth About Trusts: A Description and Analysis of the American Trust Movement* (New York: Moody Publishing, 1904). Moody's own sources are not clear, but it is likely that he relied heavily on the statements of promoters. In order to correct for possible exaggeration in Moody's estimates, I used broad numerical categories and checked Moody's findings against other sources whenever possible (see citations that follow). I also introduced some downward biases in my figures. For example, I placed U.S. Steel in the 40-70 percent category, based on its share of crude steel production. U.S. Steel, however, was a consolidation of consolidations, and many of its constituents had encompassed more than 90 percent of their markets. My results differ strikingly from those of Jesse Markham, mainly because Markham included numerous small mergers in his calculations. Jesse W. Markham, "Survey of the Evidence and Findings on Mergers," *Business Concentration and Price Policy*, Universities-National Bureau Committee for Economic Research Conference (Princeton University Press, 1955), pp. 158-62; George W. Stocking, "Comment," *ibid.*, pp. 196-9; Nelson, *Merger Movements in American*

Table 1.2. *Market shares of consolidations*

Consolidations with < 40%	Consolidations with ≥ 40% but < 70%	Consolidations with ≥ 70%
Amalgamated Copper	American Bicycle	American Brake Shoe & Foundry
American Cigar	American Brass	American Can
Cleveland & Sandusky Brewing Co.	American Car & Foundry	American Chicle
Dayton Breweries	American Felt	American Fork & Hoe
Empire Steel & Iron	American Fisheries	American Hide & Leather
Independent Glass	American Linseed	American Ice
Maryland Brewing	American Malting	American Locomotive
Massachusetts Breweries	American Sewer Pipe	American School Furniture
New Orleans Brewing	American Shipbuilding	American Seeding Machine
New York & Kentucky	American Smelting & Refining	American Snuff
Pacific Coast Biscuit	American Stove	American Stogie
Pennsylvania Central Brewing	American Thread	American Window Glass
Pittsburgh Brewing	American Woolen	American Writing Paper
Providence Ice	California Fruit Canners Assoc.	Casein Co. of America
Pure Oil	General Chemical	Central Foundry
Republic Iron & Steel	International Salt	Chicago Pneumatic Tool
Standard Shoe Machinery	International Silver	Continental Tobacco
Susquehanna Iron & Steel	National Biscuit	Corn Products
United Breweries	National Candy	Crucible Steel
U.S. Flour Milling	National Enameling & Stamping	Distilling Co. of America
Virginia Iron, Coal & Coke	National Fireproofing	DuPont
	National Glass	Eastman Kodak
	New England Cotton Yarn	General Aristo
	Royal Baking Powder	Harbison-Walker Refractories
	Rubber Goods Mfg. Co.	International Harvester
	Standard Table Oil Cloth	International Paper
	United States Cotton Duck	International Steam Pump
	United States Shipbuilding	Mississippi Wire Glass
	United States Steel	National Asphalt
	Virginia-Carolina Chemical	National Carbon
		National Novelty
		Otis Elevator
		Pittsburgh Plate Glass
		Railway Steel Spring
		Standard Sanitary Mfg.
		Union Bag & Paper
		United Box Board & Paper

Table 1.2 (*cont.*)

Consolidations with < 40%	Consolidations with ≥ 40% but < 70%	Consolidations with ≥ 70%
		United Shoe Machinery
		United States Bobbin & Shuttle
		United States Cast Iron Pipe & Foundry
		United States Envelope
		United States Gypsum

Source: See Note 3. This list of consolidations differs from the one that underlies Table 1.1 in that double counting of successive mergers has been eliminated.

Industry, pp. 161-2, and unpublished list of consolidations; G. Warren Nutter and Henry Adler Einhorn, *Enterprise Monopoly in the United States, 1899-1958* (New York: Columbia University Press, 1969), pp. 132-7; Orris C. Herfindahl, *Copper Costs and Prices, 1870-1957* (Baltimore: Johns Hopkins Press, 1959), pp. 80-2; Arthur S. Dewing, *Corporate Promotions and Reorganizations* (Cambridge: Harvard University Press, 1914), pp. 64-71, 95-106, 209-13, 252, 259, 438-9, 526; Chandler, *The Visible Hand*, pp. 387-8, 570; Harry W. Laidler, *Concentration of Control in American Industry* (New York: Crowell, 1931), pp. 191-92, 246-47, 281; James E. Fell, Jr., *Ores to Metals: The Rocky Mountain Smelting Industry* (Lincoln: University of Nebraska Press, 1979); J. W. Jenks, "The Development of the Whisky Trust," *Trusts, Pools and Corporations*, ed. William Z. Ripley (rev. ed.; New York: Ginn & Co., 1916), p. 38; "The Tobacco Monopoly," *ibid.*, pp. 269-83, 314; "The International Harvester Company," *ibid.*, pp. 334-8; Pearce Davis, *The Development of the American Glass Industry* (New York: Russell & Russell-Atheneum, 1970), pp. 130-1, 175-80; Arthur Harrison Cole, *The American Wool Manufacture* (Cambridge: Harvard University Press, 1926), Vol. II, p. 9; David C. Smith, *History of Papermaking in the United States (1691-1969)* (New York: Lockwood Publishing, 1970), pp. 170, 185, 198-201; Myron W. Watkins, *Industrial Combinations and Public Policy: A Study of Combination, Competition, and the Common Welfare* (Boston: Houghton Mifflin, 1927), pp. 184-5; Richard Roe, "The United Shoe Machinery Company," *Journal of Political Economy*, 21 (December 1913), p. 942; Almarin Phillips, *Market Structure, Organization and Performance: An Essay on Price Fixing and Combinations in Restraint of Trade* (Cambridge: Harvard University Press, 1962), pp. 114-15; M. J. Fields, "The International Steam Pump Company: An Episode in American Corporate History," *Journal of Economic and Business History*, IV (1931-2), pp. 637-64; Glenn D. Babcock, *History of the United States Rubber Company: A Case Study in Corporate Management* (Bloomington: Indiana University Graduate School of Business, 1966), p. 73; Whitney Eastman, *The History of the Linseed Oil Industry in the United States* (Minneapolis: T. S. Denison & Co., 1968), p. 32; William G. Lathrop, *The Brass Industry in the United States: A Study of the Origin and the Development of the Brass Industry in the Naugatuck Valley and its Subsequent Extension over the Nation* (rev. ed; Mount Carmel, Conn.: William G. Lathrop, 1926), p. 156; Herman Steen, *Flour Milling in America* (Minneapolis: T. S. Denison & Co., 1963), p. 65; *Paper*, July 14, 1899, pp.

quickly lost their dominant positions, others – including U.S. Steel, DuPont, International Harvester, Pittsburgh Plate Glass, American Can, and American Smelting and Refining – still ranked among the nation's 100 largest corporations half a century later.[4]

Not surprisingly, contemporaries reacted to the great merger movement with alarm – a mood that was reflected in the scholarly literature as well as in the popular press. According to Charles J. Bullock's 1901 survey of the literature on trusts, the number of works devoted to the subject grew, as did public concern, with the number of consolidations. In the 1880s, for example, the spread of the holding company device had elicited "a marked increase of writings dealing with the subject." Between 1887 and 1890 there appeared at least fifteen treatises or reports of official investigations and over thirty-five articles in important periodicals. Over the next six years, interest declined, and only eight books or reports and hardly more than a score of articles were published. Then, as the merger movement gathered strength, scholarly commentary increased. "In 1897 and 1898 at least six books or pamphlets and about thirty articles appeared, foreshadowing an increased interest in the problem of monopoly. And, finally, the last two years have given us not less than twenty-eight books, reports, and pamphlets, together with a flood of periodical articles that will reach probably one hundred and fifty titles when the returns for 1900 have all been received."[5]

1, 6; *Paper Trade Journal,* May 21, 1898, pp. 419-20; July 24, 1902, pp. 99-100; *Iron Age,* July 13, 1899, p. 12; July 5, 1900, p. 20; April 11, 1901, p. 11; U.S. Congress, House, *Hearings before the Committee on Investigation of United States Steel Corporation* (Washington, D.C.: U.S. Government Printing Office, 1912), Vol. II, pp. 825, 829, Vol. III, p. 1753; U.S. Industrial Commission, *Preliminary Report on Trusts and Industrial Combinations,* 56th Cong., 1st Sess., 1900, House Doc. 476, pp. 76-9, 176-8, 1049, and *Report on Trusts and Industrial Combinations,* 57th Cong., 1st Sess., 1901, House Doc. 182, pp. xiii, xli, lviii, lxxxii-lxxxv, 57, 97, 207, 239, 348, 356, 411, 677, 681-2, 684, 691, 719.

4 Nelson, *Merger Movements in American Industry,* pp. 154-6.

5 Charles J. Bullock, "Trust Literature: A Survey and a Criticism," *Quarterly Journal of Economics,* 15 (February 1901), pp. 167-8. See also Louis Galambos, *The Public Image of Big Business in America, 1880-1940: A Quantitative Study in Social Change* (Baltimore: Johns Hopkins Press, 1975), pp. 79-156. Galambos analyzed the attitudes toward big business reflected in a selection of work-related middle-class publications. He found that unfavorable references to big business reached an all-time peak in the late 1890s, when the consolidation movement overlapped the depression of that decade, and they remained at a high level for the duration of the wave of mergers, though the return of prosperity somewhat dampened discontent.

In their zeal to understand what was happening around them, turn-of-the-century writers proposed a number of different explanations for the consolidation movement. For some, mergers were the inevitable result of tendencies inherent in the competitive process itself – viewed as the drive for more efficient methods of production or the susceptibility of capital-intensive enterprises to ruinous competition (depending on whether the observer was by temperament an optimist or pessimist). Other scholars saw nothing inevitable in combinations at all. Although they agreed that big enterprises were often more efficient than small ones, they insisted that there were well-defined limits beyond which diseconomies of scale would set in. Formed for the purpose of monopoly control, consolidations were generally too large to be efficient. Only by using their size to unfair advantage could they maintain their dominance – for example, by means of predatory pricing.[6]

Regardless of their positions on the inevitability of consolidations, most scholars accepted the prevailing view that large size carried with it market power and the potential for abuse. They therefore advocated increased government oversight of large corporations. In order to counterbalance the growth of private economic power they proposed a variety of reforms, ranging from state statutes outlawing predatory pricing to new federal regulatory agencies with unprecedented powers to rule on the legality of combinations.[7]

The concern over the abuse of private economic power that underlay these proposals for expansion in governmental activity persisted in the scholarly literature through the 1930s.[8] With the growth in the

[6] See, for examples, John Bates Clark, *The Control of Trusts: An Argument in Favor of Curbing the Power of Monopoly by a Natural Method* (New York: Macmillan, 1905); William M. Collier, *The Trusts: What Can We Do with Them? What Can They Do for Us?* (New York: Baker and Taylor, 1900); Richard T. Ely, *Monopolies and Trusts* (New York: Macmillan, 1900); Ernst von Halle, *Trusts or Industrial Combinations in the United States* (New York: Macmillan, 1899); Jeremiah Whipple Jenks, *The Trust Problem* (New York: McClure, Phillips and Co., 1900).

[7] See the citations in Note 6. Jenks was particularly active in the movement to expand federal authority. He served on the Industrial Commission created by Congress to investigate (among other matters) trusts and industrial combinations. He also helped to draft the Hepburn bill of 1907, which aimed to expand the regulatory powers of the Commissioner of Corporations. See Chapter 6.

[8] For a summary of the literature to 1930, see Paul T. Homan, "Industrial Combination as Surveyed in the Recent Literature," *Quarterly Journal of Economics,* XLIV (February 1930), pp. 345-75. Major studies include Eliot Jones, *The Trust Problem*

size and activities of the federal government as a result of the New Deal, however, the focus of attention shifted – partly because government at that time seemed able to counterbalance the power of big business, but also because big government itself was becoming a source of growing concern. Interest in explaining the turn-of-the-century consolidation movement and assessing its consequences dwindled. Indeed, since World War II, only a handful of pieces have appeared addressing such issues, and even these mark a noticeable shift away from the problem that most agitated earlier scholars: monopoly power.[9] For example, in his article "The Beginnings of 'Big Business' in American Industry," Alfred D. Chandler, Jr., claimed that mergers for the purpose of market control could account for the rise of large-scale enterprises only in several types of industries: finished producer goods and those consumer goods industries in which transport improvements had suddenly brought local firms into competition in a national market. In most other cases, Chandler argued, large-scale mergers aimed either to improve efficiency or to guarantee access to raw-material supplies.[10] Although Ralph L. Nelson, in his study *Merger Movements in American Industry,* refused to eliminate the market control motive as a possible cause of the consolidation movement, he attached more explanatory importance to developments in the stock market, in particular to fluctuations in securities prices and the volume of trading.[11] In a more extreme position, Jesse W. Markham, in "Survey of the Evidence and Findings on Mergers,"

in the United States (New York: Macmillan, 1921); Watkins, *Industrial Combinations and Public Policy;* and Henry R. Seager and Charles A. Gulick, Jr., *Trust and Corporation Problems* (New York: Harper & Brothers, 1929). During the Great Depression, fear that the crisis had been prolonged by large firms' pricing policies spurred another outpouring of scholarship. For examples, see Arthur Robert Burns, *The Decline of Competition: A Study of the Evolution of American Industry* (New York: McGraw-Hill, 1936); Laidler, *Concentration of Control in American Industry;* Caroline F. Ware and Gardiner Means, *The Modern Economy in Action* (New York: Harcourt, Brace and Company, 1936).

9 A major exception is Gabriel Kolko, *The Triumph of Conservatism: A Reinterpretation of American History, 1900-1916* (Chicago: Quadrangle Paperbacks, 1967). See also George Bittlingmayer, "Decreasing Average Cost and Competition: A New Look at the Addyston Pipe Case," *Journal of Law and Economics,* XXV (October 1982), pp. 201-79; and Bittlingmayer, "Price-Fixing and the Addyston Pipe Case," *Research in Law and Economics,* V (1983), pp. 57-128.

10 Alfred D. Chandler, Jr., "The Beginnings of 'Big Business' in American Industry," *Business History Review,* XXXIII (Spring 1959), pp. 1-31.

11 Nelson, *Merger Movements in American Industry,* pp. 89-126.

concluded that at best only one of five mergers was motivated by a desire for monopoly power. The explanation for the abnormally large volume of mergers at the turn of the century, Markham suggested, was instead a speculative frenzy in stock issues.[12] Finally, Lance Davis has hypothesized that imperfections in U.S. capital markets put small firms at a disadvantage in securing financing, thereby inducing them to form consolidations.[13]

Whereas previously the great merger movement had appeared in the literature as the central transforming event of the modern era, in recent years the significance of its role has been greatly diminished. Thus, Chandler argues in *The Visible Hand* that the crucial transformation involved not horizontal combination but vertical integration – the joining together within one firm of mass distribution and mass production, and the development of managerial systems capable of coordinating the flow of raw materials and output through large multiunit enterprises. According to Chandler, these innovations occurred first in firms such as Swift & Company (meat packing) and the I. M. Singer Company (sewing machines), where creative entrepreneurs faced complex organizational problems. In later years the consolidation movement proved important because it quickly transformed single-unit firms into multiunit giants. But, claims Chandler, consolidations were successful only when managers abandoned their strategy of horizontal combination and followed the example of Singer, Swift, and other pioneers, who integrated their operations from raw materials to final markets and adopted a management structure capable of administering their organizations efficiently.[14]

While Chandler has downplayed the role of the consolidation movement in the rise of the modern, large-scale business enterprise, the so-called New Economic Historians (or Cliometricians), who have dominated the discipline of economic history for the past twenty years, have gone even further. They have devoted virtually no attention to the subject of big business at all, let alone the consolida-

[12] Markham, "Survey of the Evidence and Findings on Mergers," pp. 141-82.
[13] Lance Davis, "The Capital Markets and Industrial Concentration: The U.S. and the U.K., a Comparative Study," *Economic History Review*, Second Series, XIX (August 1966), pp. 255-72.
[14] Chandler, *The Visible Hand*, pp. 285-376.

tion movement. *A New Economic View of American History,* by Susan Previant Lee and Peter Passell, is the most complete survey of this body of literature to date, and the concerns of the discipline are accurately reflected in the organization of their text. Lee and Passell allocate five chapters to the economic history of slavery, sharecropping, and the Civil War. Their lone chapter on "Economic Growth and Institutional Change after the Civil War" discusses Robert Fogel's thesis that railroads were not indispensable to American economic development, as well as the problem of nineteenth-century farmers' discontent. The book contains no discussion at all of the changing organizational structure of American industry.[15]

This neglect cannot be excused by the youthfulness of the field; in twenty years, New Economic Historians have explored a wide range of topics, from economies of scale in river steamboating to the rise of the entire Western world to economic dominance. Nor can it be explained by the inappropriateness of Cliometric techniques to the topic. The hallmark of the New Economic History has been innovative application of economic theory and quantitative analysis to many different kinds of historical problems. Rather, the neglect seems to have resulted from the Cliometricians' belief that the merger movement was not important.[16] New Economic Historians have, for the most part, accepted the current conventional wisdom of the economics profession that the economy is "workably" competitive – that is, that industrial concentration has not resulted in significant deviations from competitive pricing. Thus, when Jeffrey G. Williamson constructed an elaborate two-sector, two-region simulation model of the American economy from 1870 to 1914 – the period of the consolidation movement and the growth of large-scale enterprise in general – he built into his model the assumption of perfect competition and constant returns to scale. In other words, he assumed that the consolidation movement did not alter the competitive structure of

[15] Susan Previant Lee and Peter Passell, *A New Economic View of American History* (New York: W. W. Norton, 1979).

[16] Of course there are exceptions – Lance Davis's work, for example. See also Thomas S. Ulen, "Cartels and Regulation: Late Nineteenth-Century Railroad Collusion and the Creation of the Interstate Commerce Commission" (unpublished Ph.D. dissertation, Stanford University, 1979); Bittlingmayer, "Decreasing Average Cost and Competition;" and "Price Fixing and the Addyston Pipe Case."

American industry and that big business was no more (or less) efficient than small business. Williamson himself recognized the problems that this decision might create: "The changes in economic structure following World War I are much too profound to make our pre-war model useful for understanding the 1920s. Indeed, we may even wish to use our results to suggest how and to what extent the American economy underwent significant structural changes after the mid-1890s should our ability to predict the last decade or so be relatively poor."[17] After subjecting his results to a number of different econometric tests, however, Williamson concluded that no such effort was necessary, that the model adequately reproduced trends in the data that have survived from the period, including the years 1890 to 1914.[18]

Certainly this result is surprising. So, for that matter, is the general scholarly neglect of a phenomenon that transfigured virtually overnight such a major part of the manufacturing sector. My purpose, therefore, is to assess the reasonableness of this neglect by reexamining the turn-of-the-century merger movement, its causes and consequences. Why did so many firms in so many industries suddenly combine into a few large enterprises? What relationship did this phenomenon have to the growth of big business in general? Was consolidation simply, as Chandler has suggested, an alternative route to the modern, vertically integrated, professionally managed corporation? Or did it have unique structural consequences? Is the conventional wisdom of most Cliometricians correct that the economy, despite the merger movement, has been workably competitive? Or did consolidations alter competitive behavior and the functioning of the economy? Certainly the movement provoked a political reaction. How, in turn, did this political response affect economic decision making?

The method I use to answer these questions combines traditional business-history techniques with the theoretical economic reasoning characteristic of the New Economic History. As is common in research in business history, I collected data for detailed case studies, in

[17] Jeffrey G. Williamson, *Late Nineteenth-Century American Development: A General Equilibrium History* (Cambridge University Press, 1974), p. 62.
[18] *Ibid.*, pp. 21-91.

this instance for the steel and paper industries. I chose these two industries because they both generated consolidations, but in other respects they differed considerably from each other. Although both industries produced mainly intermediate goods, steel was a durable, relatively high-valued product, whereas paper was a low-valued nondurable. The steel industry was famous for its daring entrepreneurs and robber barons, men such as Andrew Carnegie and J. W. ("Bet-a-Million") Gates; the paper industry, by contrast, produced no similarly prominent figures. Finally, the fates of the consolidations were very different in the two industries. Steel-industry consolidations generally succeeded, whereas mergers in the paper industry had at best a marginal existence.

As is less common in business history, I consciously used economic models to make sense of the data collected for the case studies, to help me decide what story to tell. In order both to test the theories and to gain the most explanatory leverage from them, I derived predictions from the models that I then checked against quantitative data for the manufacturing sector as a whole, information from the case studies, and secondary literature on industries other than paper and steel. The models and verified predictions form the analytical substructure of my narrative.[19]

This narrative develops according to the following plan. After discussing the main competitive strategies pursued by firms in the late nineteenth century, I argue (in Chapter 2) that the entrepreneurial model does not fit many large-scale industries, including most that subsequently formed consolidations. Far from being dominated by extraordinary entrepreneurs or robber barons who managed to overwhelm their competitors, the more common experience, even in most branches of the steel industry, was rivalry among a relatively small number of evenly matched firms, no one of which was able to secure a permanent advantage. I then develop a model (Chapter 3) that represents the essential features of this more common type of industry and show how, under certain specified conditions, rapid industrial growth might lead to price warfare and ultimately to consolidation. In Chapter 4 I test this explanation for the great merger move-

[19] See Charles A. Lave and James G. March, *An Introduction to Models in the Social Sciences* (New York: Harper & Row, 1975), especially Chapters I-III.

ment, using quantitative data from the manufacturing census, secondary literature on consolidations, and data on the steel and paper industries. My conclusion is that the consolidation movement was by no means an inevitable component of the development of large-scale industry; oligopolistic market structures could also have emerged as a result of a more gradual process of growth and adjustment. In the case of the late nineteenth-century United States, however, a particular conjunction of circumstances – specifically the simultaneous rapid expansion of many capital-intensive industries in the early 1890s, followed by the deep depression of 1893 – gave rise to abnormally serious price wars and consequently to the great merger movement.

Chapters 5 and 6 explore the aftermath of the merger movement, the economic and political implications of this chance occurrence. In Chapter 5 I use a dominant-firm model to analyze whether or not consolidations were able to control the competitive environment. My conclusion is that in the short run many were, regardless of their relative efficiency. In the long run, however, the higher costs that most of the consolidations entailed prevented their continued dominance – except where they were able to erect barriers to entry. The ball was thus in the politicians' court. Chapter 6 evaluates the government's response to the great merger movement, in particular its ability to prevent barriers to new competition from being erected. I argue that government action at all levels was handicapped by the peculiar division of power and authority that characterizes our federal type of government. The result was a system of rules and precedents that outlawed some kinds of barriers to entry – those that explicitly imposed limits on the actions of other firms – but did not prevent the erection of other, more subtle barriers. Ironically, this system weighed more heavily on small firms than on large ones, on single-unit enterprises rather than consolidations, on competitive rather than oligopolistic industries. Yet it also encouraged large firms to improve their efficiency.

One final note on presentation. In the interest of reaching as diverse an audience as possible I have endeavored to explain all of the economic models I use in simple fashion and to include appropriate diagrams. These aids will be most useful to readers who have had a little training in economics (i.e., those who recognize terms such as "fixed cost" and "marginal revenue"). Readers who have not had this background may find the expositions difficult. They may wish to skim through these sections, but they should still be able to follow the basic argument. Economists will probably want to skip these elementary discussions altogether.