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Volume Title: Learning by Doing in Markets, Firms, and Countries

Volume Author/Editor: Naomi R. Lamoreaux, Daniel M. G. Raff and Peter Temin, editors

Volume Publisher: University of Chicago Press

Volume ISBN: 0-226-46832-1

Volume URL: http://www.nber.org/books/lamo99-1

Publication Date: January 1999

Chapter Title: Sears, Roebuck in the Twentieth Century: Competition, Complementarities, and the Problem of Wasting Assets

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Chapter URL: http://www.nber.org/chapters/c10234

Chapter pages in book: (p. 219 - 252)

Sears, Roebuck in the Twentieth Century: Competition, Complementarities, and the Problem of Wasting Assets

Daniel M. G. Raff and Peter Temin

6.1 Introduction

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The American frontier closed around 1890. This assertion in its obvious meaning—that there was no unsettled land—is not true: much land waited to be settled in 1890. But after 1890 there was no place where settlers were beyond easy contact with the rest of society. By 1890 the railroad reached throughout the country. Mail, newspapers, periodicals, and publications of all sorts could travel by post and reach everyone quickly.

These conditions created an opportunity for the successors to the peddlers who in earlier years had carried or carted their wares to the otherwise isolated. Previously, relatively large retailers—however small their volumes may have been in absolute terms—sold only in cities and towns. But in 1890 the country's population was still two-thirds rural. Now mass retailers could use the mails to sell goods where people lived (Chandler 1977). They advertised goods in newspapers and magazines that reached farmers. They even published their own catalogues as the extent of their offerings and the value of direct control over the presentation grew.

One of the most successful of these retailers was Richard W. Sears, the founder and for several decades the guiding light of Sears, Roebuck and Company. This paper follows the career of the company after Richard Sears's retirement and death.

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The authors thank Naomi Lamoreaux, Walter Loeb, Thomas Misa, Walter Salmon, participants in the preconference, and seminar attendees at Cal Tech and the Wharton School for helpful comments and discussions. The usual disclaimer applies. The company's history is well-plowed ground in business history. Why another pass? We regard previous treatments as being in important respects incomplete: large and interesting questions deriving from the interaction of economics and history seem to us to have been almost completely ignored. The two most salient settings for analyzing these interactions in the history of Sears are clusters of decisions made by the company in the 1920s and 1980s. It is on these that this essay focuses.

In both these periods, Sears, Roebuck faced challenges. In the first period the company acted brilliantly, in the second not nearly so well. On the strength of the early period's strategic investment decisions, a company that had been merely large and profitable grew into the nation's single largest retail firm and a pervasive factor in the economy as well as in the purchase behavior of a remarkably large number of households. In the second, however, challenges unanswered nearly destroyed the company. This paper analyzes the elements behind the success in the twenties and the near disaster in the eighties and places them in a broader and more systematic context.

We argue that a company succeeds as Sears did when it combines two types of advantages to make itself ineffaceably different from the mass of actual and potential competitors. The first of these types bears on demand. The company identifies and offers goods or services for which many customers are willing to pay a price in excess of production and distribution costs. Indeed, it makes its offering on terms such that customers turn to it rather than other possible suppliers of the same or similar product. The second type concerns supply. The company utilizes assets that have scarcity value the company can itself appropriate. For the company's supply to have these features, the assets must be difficult to do without. (Another way of putting this is to say that it must be difficult for potential competitors to provide the offering without the assets in guestion.) The assets also must be difficult for potential competitors simply to reproduce. And the company must not be at a disadvantage bargaining with its suppliers. For the success to be long-lasting, and not just a momentarily advantageous transaction, the assets (and indeed all these attributes of them) must be durable.

Achieving each of these two types of advantages in isolation may be a relatively straightforward matter. The harder task, the one that makes for a sustainable competitive advantage that is truly valuable, is to develop them both together. Effecting the combination, and so frustrating the familiar forces of competition and free entry, represents developing the competitively valuable asymmetries possession of which distinguishes successful firms from mediocre ones, firms that earn supranormal profits from those either losing money or earning merely ordinary returns.

There is more. Because environments change, the task is never complete. Successful firms adapt in ways that sustain and enhance the value of the two sets of characteristics we have identified. New activities are undertaken aimed at entrenching the firm in emerging markets, activities that exploit and extend the companies' defensible strengths. Less successful firms may blunt the force of competition in one market. But they do not adapt, and the value of their asymmetries wastes. Preventing such wastage (at a cost, of course, less than the value to be gained) is the trick of enduring success.

This process is ongoing. (It is dangerous to rest on your laurels.) But it does not move evenly through time. There are opportunities for bold decisions, and there are times when action must be taken even without clear objectives. Decisions taken at such times are good if they move the firm toward growing markets and if, at the same time, they exploit the distinctive capabilities of the firm. It is the interaction of these two characteristics that distinguish brilliant from mundane decisions. And it is a characteristic of good business leadership to recognize and anticipate this interaction because it is often hard to discern and predict in a rapidly changing world.

Two episodes in the history of Sears, Roebuck and Company illustrate this argument. In each time frame, Sears moved into a new activity. In each case the new activities were profitable at least at an ordinary level from the start. But only in the first case did the new activities also build on the distinctive and durable strengths of the existing organization. As a result, the innovations of the 1920s left Sears stronger at the end of the decade than at the beginning. The innovations of the 1980s did exactly the opposite. Sears's retailing resources were not maintained and supported relative to competitive standards. Naturally their value depreciated.

How could the managers of Sears have made such a mistake? They understood the point made above that Sears needed to use its existing capital to provide leverage for its next ventures. But they appear to have been prisoners of the way this capital had been used in the boom following the Second World War. They could not free themselves from modes of doing business that were tried and true but rapidly becoming outmoded. The case is vivid but the point is general.

The remainder of this paper is organized into four sections. The first sets the stage by describing the company's initial mission and growth under Richard Sears and his colleagues, most notably Julius Rosenwald. The two following sections describe the decision-making process and the decisions in the two periods of interest. A final section concludes.

6.2 The Early Years

Department stores, predominantly creatures of the post-Civil War urban boom, established the basis on which mail-order houses did business. The department stores initiated uniform prices, departing from the individual bargained price of the bazaar. The uniform price had several advantages over individual prices. It allowed stores to hire a large staff that could be given simple instructions and evaluated far more easily on the quantity sold than if the employees could influence both price and quantity. The uniform price also allowed stores to offer a money-back guarantee, as there was an easily ascertained price to give back (Hower 1946).

Department stores carried a wide and growing range of products. They benefited from economies of scope in selling goods that specialized stores could not realize. They did a volume business and often bypassed wholesalers to cut costs, a move made possible by their large volume in each good. They even circulated small catalogues to sell by mail the stock they had in stores.

Montgomery Ward began its mail-order business in the 1870s, soon after the advent of the urban department stores. It followed the model of the department stores in terms of its wide offerings and fixed prices, but it brought the goods to the consumer—not the other way around. Business was good in the late-nineteenth-century economic expansion, and Montgomery Ward prospered.

Richard Sears aspired to get into this growing market. He began by selling watches, a lot of which he had been able to acquire at an unusually good price, with a money-back guarantee. He did well and expanded. But he was not able to build on his success and was close to bankruptcy in the depression of the 1890s. His partner, Alvah Roebuck, sold his third of the business for \$25,000; but Sears convinced a potential supplier, Aaron Nussbaum, to buy half the firm for \$75,000 (Worthy 1984, 25). The difference between the implicit value of the firm when Roebuck was the salesman and the implicit value when Sears was suggests some of the skills that propelled the company forward in its early years under Sears's direction.

Sears possessed both manic energy and real writing ability, and he made the Sears catalogue a potent selling tool. The Sears product line broadened in the 1890s. From watches and jewelry, it expanded to virtually all goods used by rural farming families, from clothing to buggies, kitchenware to farm equipment, hunting supplies to patent medicines. The Sears catalogue, advertising all of them, became one of the wonders of the modern world, a monument to Sears's ability to portray a remarkably wide range of merchandise in an appealing manner.

The catalogue presented such a cornucopia of goods that it created what we might now call a virtual reality in the minds of Sears's rural customers. It seized their imagination at the same time that it offered countless items that would make their lives more convenient and productive. No other retailer—fixed or mail—offered the range and verve of Sears.

Yet considered as a business, Sears's company was a helter-skelter operation. As the catalogue expanded and farm incomes grew after the depression of the 1890s, the difficulty of assembling and sending orders threatened to swamp the company. Goods were shipped only with long delays. Many reached farmers in damaged condition, and returns under Sears's money-back guarantee were increasing. As tension within the firm rose, labor turnover increased as well. Sears, Roebuck was saved from this morass by Julius Rosenwald, a businessman brother-in-law of Nussbaum. Rosenwald had purchased half of Nussbaum's interest and came increasingly to run the company. Rosenwald sought to increase the efficiency of the operation and the quality of the goods at the same time. That is, he wanted to reduce effective costs without selling poor or damaged goods. There were two ways to go about this: first, buying, distributing, and generally administering more cheaply; and second, pricing to take less profit on each item. Buying more cheaply required being an attractive customer to vendors. As a large and growing national outlet in an age of localized retailing, Sears could do this; and it did so ruthlessly. The second, which was also implemented, built on the same foundations of large outreach—potential as well as actual—as the first. Because the average cost curve sloped downward, overall profits were in fact enhanced by the increase in volume. Rosenwald actively pursued the first way. This is less straightforward but more interesting for our story, so it merits more detailed discussion.

Sears, Roebuck initially shipped goods directly from the factories in which they were made. There often were delays in shipping. The factories that received the orders from Sears were supposed to report back to Sears what they had shipped, but the advices were often slow in coming. When a customer complained to Sears, the factory was sent a new order to ship. In that age of handwritten ledger books, there was no easy way to check the new order against the records of the outstanding old ones. The result was that orders frequently were sent out over and over again. The cost to Sears of all this duplication was large since Sears paid the freight for returns, and the effect on consumer perceptions of the company was very bad. One customer in the 1890s is quoted: "For heaven's sake, quit sending me sewing machines. Every time I go to the station I find another one there. You have shipped me five already" (Emmet and Jeuck 1950, 116).

Rosenwald undertook a massive investment for a new mail-order facility in Chicago, which opened in 1906. It was a large structure—large even by today's standards—with all sorts of mechanical equipment for moving goods. But the concept underlying the building was more important than the machinery.

Otto Doering, the operations superintendent, assigned each goods order as it arrived a time and place. That is, he introduced a system where each order was assigned a particular shipping room for a particular fifteen-minute period. Each department supplying an item in the order was notified of this time and place and directed to deliver the item then and there. Items not arriving in time were shipped separately. The supplying department was billed for the extra cost.

Why did this system work so well? At a formal level, it worked because it subdivided the process of mailing goods into its component parts and provided the opportunity and the incentives for each part to be done well. The component parts were finding the goods, assembling the order, and packaging it. Working backward, packaging the goods was made straightforward because all the goods to be sent were assembled by the end of the fifteen-minute period. They could be packed well and sent off.¹

Assembly was done well because Doering's system placed the incentives where the work was to be done. The product departments had the responsibility to supply the ordered goods to the shipping location. By fixing a time and providing a penalty for late delivery, Doering enlisted the departments in the effort to get completed orders out quickly. The penalty was tied to the cost of late delivery; it therefore was "just" rather than arbitrary or punitive. The cost of late delivery appeared as a carrot for on-time delivery instead of a stick used for late delivery.

Finding the goods in the component departments was left to the departments. As in the earlier chaotic system, they were the best placed to organize their products to be easily found and dispatched. But unlike in the previous system, the departments did not send goods to consumers: the goods were dispatched to Sears's mail-order facility instead. Given the incentives for delivering goods to the shipping rooms in fifteen-minute segments, the departments had derivative incentives to organize their goods in an efficient manner.

The discipline was not as strict as in the modern Japanese just-in-time delivery system. Given the technology of the time, there was no way it could be. So the Sears plant in Chicago had places for goods from the manufacturers to be stored, identified by their Sears catalogue identification number. Orders could be assembled from these holding bins. The supplying departments were responsible for keeping them filled.

All this was done without computers or telephones. Pneumatic tubes were a popular mode of communication in department stores, and they were mentioned in the 1905 catalogue description of the new plant. Since Nussbaum had first approached Sears in an effort to supply pneumatic tubes to the company, their use may have been one of his contributions to more efficient operations. Doering undoubtedly used pneumatic tubes to let product departments know of delivery times and places and to get information on the assembled goods to departments dealing with finance.

The new procedures also solved the information problem that had resulted in multiple shipments for the same order. The supplying firms no longer communicated directly with consumers. All communications went through Sears. The need for feedback on which orders had been fulfilled between Sears and its suppliers had vanished, and the problem of duplicate shipping information at Sears and its suppliers evaporated.

The difficulty of implementing this new vision is reflected in the length of the period required to make it operational. Forms used within the company show that it was being used widely two years after the new facility was opened.

^{1.} The prevalence of goods reaching the consumers damaged under the old system reveals the need for care in this step.

But Lessing Rosenwald, who joined the shipping department in 1912, six years after the building was opened, reported that the new system was only then becoming fully effective (Emmet and Jeuck 1950, 134).

While the new facility improved Sears's operations, it should not be thought that the earlier chaos had put Sears behind other companies of the time. For the other resources of Sears'were valuable. In the four years preceding the new plant, Sears's operating expenses averaged 3 percent lower as a percentage of sales than Macy's (Emmet and Jeuck 1950, 175). Sears's gross margin was larger than Macy's—a tribute to Sears's ability to exploit the scale of its business by buying low or even integrating backward to make its own merchandise. Profits as a percentage of sales were higher than Macy's even before the new plant was opened.

Nonetheless, the new plant represented a tremendously valuable asset. The real competition Sears faced at this stage of its history came from other mailorder firms. The new plant helped address customer needs. Considered as a complex asset in itself—facility, systems, people, and know-how all together—the plant possessed all the subsidiary features supporting scarcity value. It enabled the company to trade in volumes that freed Sears from upstream appropriation threats and supported low prices to customers. And the company complemented this by monitoring its downstream activities—the pricing and presentation of its offerings relative to that of its competitors—to make sure it stayed up to the mark where not actually defining it.²

In the early years of the century, then, Sears had a large market, attractive goods, a well-deserved national reputation for reasonable prices and general reliability, and distribution assets unusually well suited to getting and keeping this all before the public. These are complementary with one another, and success fed success. The company was in an unambiguously advantageous position.

6.3 Operations and Choices in the 1920s

Sears faced a double challenge after the First World War. The postwar recession had nearly bankrupted the company. Farm income was down after the war as European farms came back into production. The agricultural depression reduced the income that farmers had to spend on mail-order products. The long-term population trend was off the farm and into cities, and during the 1920s the trend accelerated. The result of these long-run and short-run forces was that Sears's traditional market was anything but buoyant during the 1920s.

Sears also faced new and vigorous competition for this diminished market. Chain stores had grown rapidly before the war and had become widespread by

^{2.} The Sears household actually subscribed to the Wards catalogue—presumably under Mrs. Sears's maiden name! Offerings, prices, and even the quality of the stock on which the catalogue was printed were all carefully monitored. See Rosenwald to Sears, 26 February 1902, Julius Rosenwald Papers.

the 1920s. J. C. Penney, F. W. Woolworth, W. T. Grant, United Cigar, A&P stores, and many such others were spreading all over the country. Growing automobile ownership made these stores increasingly accessible. The rural customer in particular was no longer dependent on the Post Office to bring merchandise to her. None of these stores by itself offered the range of products that Sears did. But the position of Sears in each market was nevertheless diminished.

Richard Sears, for all his gifts, was never the steadiest of influences; and by this point he was out of the picture. Rosenwald was a man of much more appropriate abilities for managing a complex organization, and, unambiguously in control, he successfully steered the company through the shoals of the postwar depression. He then had to chart a course for the open water ahead. The requirement for success was to find a more attractive market to replace Sears's stagnating rural one. To preserve, much less enhance, profitability, the new market needed to be one that could be exploited from Sears's great operating and merchandising strengths. Exploiting the accumulated organizational capital of the existing business would, if the match were good, provide protection from competitors already trying to exploit the opportunity or contemplating entry.

Rosenwald hired a retired World War I general named Robert Wood after Wood was fired from a senior position at Montgomery Ward in 1924 in a dispute over strategy.³ Wood had been a devotee of the *Census of Population* and the *Statistical Abstract of the United States* for many years.⁴ He read and reread the statistics. He projected the population trends he discerned and saw that the mail-order firms' market was moving away from it into the territory of urban department stores. As he had at Montgomery Ward, Wood championed the development of urban retail stores as a way to hang on to customers (Wood 1961, 42).⁵ To the opposing argument that the stores would simply divert the mail-order business to the stores, Wood responded briskly that it was "[b]etter to lose that business to one's self than to someone else" (Emmet and Jeuck 1950, 341). Wood was concerned with maximizing the overall profits of Sears; his opponents, the profits of one part of the company (albeit then the largest part).

Despite the force of this argument, Wood did not convince much of the Sears management. Perhaps many of the skeptics were defending specific vested interests. Perhaps they were simply fearful of change. Wood did convince the

^{3.} For a glimpse at this and at the competitive environment for mail-order firms, see Wood 1924.

^{4.} This habit dated back to his time as a logistics officer in the army helping build the Panama Canal. Library facilities had been limited.

^{5.} Wood may have meant that if one part of the Sears operation was declining, it would be nice to have another expanding. He may also have anticipated (correctly) that there were economies of scope and that store business would help support Sears's fixed costs—its administration, buyers, transport, etc.

head of the company, however; and that was all he needed. Indeed, Wood's ideas had persuaded Rosenwald even before Rosenwald decided to hire Wood. "You need us and we need you" were the words with which Rosenwald began their relationship (Wood 1961, 43).

The first store was opened in 1925 on the site of the Chicago mail-order plant. It was followed in that same year by seven more stores. Sears had over three hundred by 1929, and 40 percent of its sales that year were made in them.

The first stores were located in mail-order facilities, in part to minimize the cost of the real estate and maximize the ease of supervision. But soon Wood had to decide where else to place stores. He set out to differentiate his stores from the plethora of others already existing. His stores would not compete for central-city locations with department stores: they would instead be located on the outskirts of cities, where rent and parking were cheap. They would not emphasize "soft goods" (clothing, food, etc.) like chain stores, though they would make a point of carrying some. They stocked most prominently "hard goods"—hardware, furnishings, farm implements, plumbing—Sears's traditional lines. They were men's stores far more than women's.⁶

Each of these characteristics of the new stores was the result of a decision. Wood, in his perusals of the *Statistical Abstract*, had noted that, in addition to becoming more urban, people were becoming more mobile. In a talk given in 1937, much after the fact, Wood explained that the center-city location of department stores was determined by the means of transportation (Worthy 1984, 83). Railways, first horse-drawn and then electric, converged at the center of cities. Stores in outlying districts could draw only customers who could walk there. But the advent of the automobile meant that the center city was losing its advantage. People could drive to stores that were outside the city center. In fact, they would prefer to drive there because the traffic was less and the parking easier.

It is no accident that this reasoning sounds like the argument for the shopping centers that grew after World War II and the shopping malls that have grown since. Wood was the first to recognize this opportunity, and Sears was well-placed to exploit it.

An alternative strategy can be seen in stores opened by Sears, Roebuck's main competitor, Montgomery Ward. Faithful to their rural customers, Montgomery Ward opened stores in small rural towns. (The facilities were initially intended simply to showcase merchandise. They were converted into stores in the face of customers' desires to take the demonstration items home.) The distinctive feature of this strategy is shown in the comparison of store locations in table 6.1. Sears stores were located in cities almost an order of magnitude larger than cities where Montgomery Ward opened stores.

Montgomery Ward had been faithful to its rural clientele in its retail loca-

6. For an interesting retrospect, see Wood 1950.

of cit	ties)		
Population	Sears Only	Sears and Ward	Ward Only
Under 25,000	18	20	320
25,000-99,999	52	84	47
100,000-499,999	47	10	6
500,000 and over	11	1	0
Total	128	115	382
Median population	82,682	43,573	11,647

Table 6.1 Population of Sears's and Ward's Store Cities, 1925–29 (number of cities)

Source: Worthy 1984, 87.

tions. It therefore shared in the agricultural depression of the 1920s. Sears had been faithful to its merchandising tradition—bringing a wide range of goods to working families. But it also had recognized that the occupations and locations of these families were changing. It operated at a higher level of abstraction than its principal competitor. It found a way to exploit the growth of the urban market with the experience it had accumulated serving the rural one. In this it was unlike A&P, Woolworth, and so forth, which only exploited a new market, and Montgomery Ward, which only relied on its experience. It succeeded because the features of its assets that were valuable in the one setting were, properly mobilized, valuable in the other as well.

Sears also targeted regions of the country. Wood, ever on the hunt for trends in the statistics, observed that the population of the United States was shifting westward and southward. He therefore located Sears's retail stores disproportionately in the South, Southwest, and West (Worthy 1984, 90).

The decision to carry a wider range of goods than other retail stores was a continuation of Sears's policy. The Sears catalogue of course included everything from underclothes to farm machinery. The new stores would do the same. There would be goods for the home craftsman and remodeler just as there had been goods for the farmer. There also would be the opportunity to buy a wide variety of products in a single store. Sears even would supply parts and service for the cars that customers used to get to the store.

The new stores initially were designed to look like the warehouses to which they often were attached. Wood thought the young people setting up households would like to buy their goods in a no-frills atmosphere, reminiscent of the farms they had left or the bare houses they were beginning to furnish. General Wood thought of his stores as military commissaries, a term he used frequently. But this decision was at best ahead of its time. Only now are warehouse clubs thought to indicate good values. Customers in the 1920s were not so fond of the warehouse atmosphere. The times were expansive, and Sears discovered that merchandise both looked and sold better when it was displayed well. Unlike the decision where to place the stores, the decision how to design the stores had to be reversed. Fortunately for Sears, refixturing stores is relatively inexpensive. And business bounced back: people did trust the Sears name.

There were many reversals of policy like this: the redirection of company efforts was not accomplished without false starts and great effort. The postwar inside history of the company argues that there was no clear conception of how retail operations fit into Sears's overall strategy. Its summary sentence reads, "It appears in retrospect that almost the only thing that Sears, Roebuck knew about retailing in the first years after 1925 was that it had entered the field" (Emmet and Jeuck 1950, 341–47). But this is an overstatement. It is true that retailing from a store was a new activity for Sears, Roebuck. The staff at Sears was used to the procedures of a mail-order business. The company's mail-order policies and procedures were by the 1920s well developed and smoothly operating. Retail stores were different, however, and the company had to learn how to manage them. There naturally were confusion and false starts along the way. But the learning process should not be confused with lack of insight into the overall logic. It is apparent that Wood had a clear vision for his company. The problems were all in its implementation.

And the difficulties should not be overdrawn. Sears, Roebuck had been profitable even before the 1906 Chicago mail-order plant was opened. The retail stores were profitable from the start as well. Improvements were made that enhanced the prosperity of the stores, but there was never a time when the problems of retailing threatened to overturn the decision to sell from stores.

As before, the profitability came partly from the company's low costs. The stores were located in outlying sections of cities not only to attract motorized customers. They also took advantage of lower rents outside the city center. Despite later claims that the locations were chosen solely for the customers, the low rents may have been at least part of the initial motivation for outlying locations.

Store rents were only a small part of Sears, Roebuck's expenses. Sears kept costs low and its competitive position strong relative to a whole class of potential competitors by buying cheaply (Raff 1991). The traditional way to accomplish this was to use the large size of Sears as a bargaining tool and force the price of goods down. Sears buyers traditionally had no loyalty to supplying companies. They would switch in an instant if a newcomer offered a lower price.

Wood had a different philosophy. He wanted continuity in his suppliers. While he wanted low prices as much as any of his predecessors, he wanted to use stable relations with the producers of his merchandise to ensure high quality. He replaced the adversary relationship that had characterized Sears before the First World War with a cooperative one. "The tremendous volume in which Sears bought was not to be used as a club to beat down the source's prices but as a foundation on which the source as well as Sears could build a prosperous business" (Worthy 1984, 68). The need to beat down source prices was not even great. The production runs for Sears were typically vastly in excess of those for competitors, even those in the new urban setting. The scale-economy advantages were often large. Even sharing some of these advantages with the vendors, Sears product costs were unusually low.

Sears even integrated backward to a limited extent, extending its operations further into the manufacturing stage than it had before. The story is told that Wood, reading a newspaper this time, saw that steam locomotives were no longer being made in the United States. He called an acquaintance who was the head of a firm making locomotive parts and asked him what he was going to do. The hapless friend responded that he was at his wits' end. Wood suggested that the manufacturing firm could make refrigerators for Sears. Sears would finance the new machinery needed to change products and guarantee the firm a secure market. The deal was consummated, and the manufacturer grew to be a principal in what is now Whirlpool, Inc. (Worthy 1984, 71).⁷

The attractiveness of this locomotive parts firm did not lie in its machinery. The machinery was all junked in favor of new tools for making new products. Instead the assets of the manufacturing firm lay in its human capital, both the manual skill of its workers and the management skill that held the company together. These human assets were fungible, an attractive feature to Wood, and they were employed by him in a process that resembles the European recovery after World War II and the Japanese response to changing relative prices in the 1970s.⁸

Sears participated actively in the design of many of the products it sold. The buyers worked with the manufacturer to create a product that the buyer could sell and that would fit in with other products the buyer was handling. Sears created a testing laboratory to help this process by evaluating new products and providing a mechanism to introduce new ideas and further modifications.

Sears also designed its orders to keep manufacturing costs as low as possible. Goods were ordered in large quantities to capture economies of scale. And Sears kept its orders steady over time in order to smooth the impact of demand fluctuations on its suppliers. Sears absorbed the inventory costs, of course, but it calculated that they would be less than the start-up and waiting costs involved in irregular orders. The cooperative relationship between Sears and its suppliers that itself verged on vertical integration allowed Sears to effect this kind of optimization (Worthy 1984, 73).

Finally, Sears took on much of the distribution function of getting products from manufacturers to the merchant. Sears by the 1920s had ten regional mailorder plants. The Sears buyer took an active part in the transport of goods to these centers. The manufacturer was relieved of the need to plan, and Sears could reap the advantages of centralized distribution.

^{7.} On Sears and refrigerators more broadly, see Tedlow 1990, 305-28.

^{8.} Changes were made in response to new conditions in those places and times within existing business organizations. It was easier in those settings to use the existing hierarchies to redirect labor than it was to create new organizations to pursue new objectives. (See Toniolo 1995; Dore 1986.)

Sears was not, however, fully vertically integrated. It took only minority positions in its supplier companies. Wood wanted to influence the manufacturers, but he wanted them to be working for themselves. Sears also tried not to buy the entire output of a manufacturer, so that the manufacturer would have to keep up with the general market. Sears kept clear that its primary role was selling, not manufacturing.

Retailing was challenging, particularly in a time of transition in which the time-hallowed stereotypes of the lives and wants of the potential customer base became more problematic. The inherited organizational structure actually magnified this problem. Mail-order operations were national and high volume. Demand variations in any one region—whether for reasons of style or local income—would be small relative to the whole. The law of large numbers stabilized demand at the company level. Retail stores by contrast were far smaller and by their nature local. Fashion tastes and income could vary greatly across the nation, with potentially massive impact on the profitability of individual stores. Buyers had to be far more nimble to stock stores than mail orders.

Indeed, the buyers in Chicago did not stock the stores themselves. Store managers, and a territorial organization that grew up over them, purchased from the buyers the goods that were sold in the local stores. General Wood came to believe that selling from stores on the Sears scale was "too vast and complicated" for centralized control. He made the organization, in a much-repeated phrase, into a federation of independent merchants, each local store manager to a considerable extent autonomous within the four walls of his own store. The buyers therefore had to do far more than simply procure goods on favorable terms. They had to persuade the store managers to stock them.

The store managers were the appropriate people to make these decisions under the circumstances. They oversaw the sales, often in the most literal fashion; they lived in the communities; and their jobs involved understanding on the one hand the desires and needs of the local customers and on the other the local competitive situation. They were, so to speak, close to the consumer purchase decision; and the information they gleaned from this perspective, otherwise difficult to capture with the technologies of the day, undoubtedly helped in merchandising, pricing, and ultimately, revenues (Raff 1991). Unlike the managers and the individuals called buyers in the local department stores, these Sears employees did not have a free hand as to which vendors they used. But equally unlike their counterparts, they benefited on the cost side from the advantages Sears scale and reliability offered to suppliers. These advantages were all complementary, of course; and all helped sustain the advantageous position from which Sears started.

Within the Sears procurement operation, conflicts developed between the older buyers used to the strictly mail-order ways and the younger ones who recognized the new complexities of the job. Wood and the Sears management flirted with the idea of developing two different sets of buyers, that is, of essentially splitting the company in two. Growing antagonism between the two downstream parts of business certainly encouraged a split. But the decision was made to keep a unitary buying organization and preserve the advantages of large scale and clear lines of authority. It took many years to work out the problems of unifying procedures for both branches of the business (Emmet and Jeuck 1950, 355–57), and, as we shall see, the problems of coordinating buying and sales never entirely went away.

The automobile provides a dramatic example of how actually observing the customer can help exploit and extend competitive strengths. Farm machinery was not of course a big seller in the new stores, many of them being in suburban sites. But the customers owned, and cared for, the cars they parked. Thus automotive equipment replaced farm equipment in the merchandise selection as Sears became a major auto parts seller. The buyers figured out that tires wore out quickly, and Sears brought automobile tires within the four walls of the Sears stores. Tires, indeed, for many years provided the highest sales dollars per square foot of any product category in Sears. Sears became a major channel.

It was only a small managerial step from there into automobile insurance. The idea of Allstate was to take advantage of the one-stop buying experience of the stores. If customers trusted and were buying parts, even those on which safety depended so directly as tires, why not try to sell them insurance while they were in the store as well? As Wood recalled,

I called a meeting of my outside directors in 1931. Business wasn't good at that time ... and I proposed we found this insurance company.... [T]hey asked me two very pertinent questions. They said: "In the first place, why should we start anything now, when times are bad? In the second place, what the hell do you know about insurance?" Which was also true.

"Well," I said, "I don't know much about insurance, but I do know this that Sears has the largest tire and battery and auto accessory business in the country, and every car owner goes to Sears or knows Sears. In the second place, we've got this system of stores and instead of the agent pounding the pavement for a prospect, they'll come to our agent in the stores, and our cost of acquisition will be far less than with ordinary insurance companies." (Wood 1961, 74–75)

The shift into selling a service was made almost without strain. Healthy profits flowed freely almost from the first.

The 1920s represented a critical time for Sears. Its traditional market was eroding, and action was needed to revive the company. General Wood seized the new opportunities created by urbanization and the automobile and gave his company a new lease on life. There were of course problems and difficulties in shifting direction, but two qualities of the innovations made them ultimately beneficial. First, they were responsive to the market. As every history of Sears notes, the new stores and focus on the automobile were prescient innovations. Second, the innovations were conservative in terms of Sears's operations and mission. Sears's buying operations, internal procedures, and customer base evolved relatively smoothly into servicing the new operations. These assets were valuable in the new setting, too. Problems were noted prominently at the time and in company histories, but the change was effected without reducing company profitability or threatening the integrity of the organization. Sympathy with the market coupled to a keen sense of what Sears could do unusually well was the hallmark of Wood's innovations.

There was nothing inevitable about the decision to open retail stores and the associated decisions about where to site them and what products to carry. Wood is noted so prominently in histories of Sears because he seems to have made the decision largely on his own. He had no support among Sears's senior management. As we have discussed, he had active opposition among the rank and file. His ex ante arguments convinced only one person: Julius Rosenwald. But that was the only person who had to be convinced to initiate Sears, Roebuck's transformation. The ex post success of Wood's innovations made everyone into a believer and Wood himself into a cult hero. Wood became Sears's CEO in 1928 when the previous president died. He was chosen over Doering, the able organizer of the mail-order facility in Chicago. He was elevated because he was thought by Rosenwald to have the vision to carry Sears in the interwar years and because, being younger, he would have more years in which to do this.

General Wood turned out to be very long-lived. He did not retire early, and he did not depart when he retired. Nor did the sense of his presence fade. His apotheosis proved, as the years passed and times decisively changed, quite unfortunate for the company. It was the reasons for his success in the 1920s, and not the details of how it came about, that ought to have been honored. Wood's logic was his valuable legacy. The specific content of his vision wore much less well with time.

6.4 Operations and Choices in the Late 1970s and 1980s

Sears, Roebuck faced a crisis in the late 1970s that was similar to its problems in the early 1920s. It found its customers' business slipping away. It needed to do something new to replace the old. But unhappily the leadership of Sears at this time was not as insightful as General Wood. His inheritors suffered from a profound misperception of what their fundamental assets were and what made these assets valuable.

Over the half century following the events described above, Sears had pursued both catalogue operations and retail sales. It also pursued the Allstate initiative, which not only sold insurance but branched out into a number of financial products and even came to operate a large savings and loan in California. Overall, this was a very successful period in terms of the company's financial results. And Sears became a dominant presence in general merchandise retailing: there were years in which the firm's annual revenue approached 1 percent of GNP. Sears, it seemed, developed a franchise with urban America in the middle half of the twentieth century just as it had had with rural America at the end of the nineteenth.

By the late 1970s, however, the franchise's customers were changing. Deindustrialization and demography were at the root of the changes. Employment in manufacturing grew slowly in the 1970s and reached a peak in 1980. Employment in services meanwhile was booming. More important still, the population under five years of age peaked in 1960 and fell for the next twenty years. The young blue-collar families Sears was accustomed to fitting out were a fading force in the marketplace. There were fewer and fewer new households eager simply to equip their houses with Sears furnishings and appliances and to clothe their young children in utilitarian Sears pants and dresses. In retrospect, it seems clear that by the late 1970s Sears's earnings growth had essentially flattened out. There had been decades of boom since the move into retailing, but now they seemed to be over. The company's earnings from retailing were even unambiguously lagging behind those of its principal competitors.

As in the 1920s, other firms already existed to serve newer markets. Discount department stores, focused specialty stores, and other chain stores were growing rapidly. Even local department stores were doing relatively well. The company's own research indicated that the customer base was still intact and that the Sears name was just as trusted as before. The customers even came in just as often. But now they also shopped elsewhere; and far more frequently than previously, they stayed to purchase elsewhere too. The issue was only partly price. Sears was losing some sales to discounters, but it was also losing sales to these other competitors (Brennan 1980, unnumbered p. 5). The notion that the nation had excess capacity in retail space—that it had become "overstored"—became as much discussed within the company as in the trade press.

This overstoring was ironic. It seems very likely that many of the specialty store, chain, and outlet stores in question were located near or even in suburban and regional shopping malls anchored by the Sears stores in question. The casual accessibility of other stores within a mall or in adjacent ones made price comparisons more convenient. Any contrast between Sears's offerings and those of the other retailers—or even a contrast between the attractiveness of the two presentations—could be easily noticed and acted upon. The proximity made things much harder for Sears. Wood's move to sites with cheap land and plentiful parking was far less attractive when other retailers made the move right along with Sears.

Less attractive as it might be, cash flow was still strong. Borrowing capacity remained ample. So Sears could lay its hands on money to change how it did business. As the sense of crisis in retailing operations grew, the question arose of what to do. As in the 1920s, Sears faced a stagnating market. It needed to find a way to use its existing tangible and intangible capital to effect a movement into more attractive markets or positions. In the 1920s, Sears seems to have come to its new role in a relatively autocratic fashion. This time the future of the company was subject to extensive debate.

One group of managers, within the retailing group and up from the Field, that is, up from working in and supervising Sears's many stores, believed radical means were required to execute the Wood's traditional strategy. There were too many private deals between the buyers and the store managers. There were excessively broad selections of goods on display and in inventory. Store managers faced excessive temptations to advertise and have sales to keep revenues up and to get goods they had purchased out the door. This party wanted to revitalize Sears retailing by shaking up the organization: they wanted to change who made decisions. This was a retailing alternative, though a disturbing one to the traditional culture of the Field.

Indeed, this party discovered, as it explored its intuitions, that it was hard to tell from the Sears control system just how well or badly the Field and the catalogue were doing. For it emerged that Wood and his successors had not even adequately differentiated the stores and the catalogue operations. Goods ordered and purchased by Sears's buyers went into a common pool from which they were sold through both outlets. How could Sears corporate decision makers know which outlets were profitable? How could they tell about the catalogue? And how could demand in an outlet or in a location be communicated back to a buyer? And if it were communicated, how could the buyer's actions be evaluated? The cost of information processing may have necessitated this aggregative view in the 1920s. But a lot had changed in the ensuing fifty years. New modes of knowing were now possible, and they revealed, this group felt, a need for dramatic changes both in what was done and in how the decisions of what to do should be made.

The overall thrust of this group's proposals was back-to-basics. "[The] overall strategies ... we recommend for these next five years are embarrassingly fundamental . . . no revolutionary insights, no earthshaking revelations," wrote the head of the buyers in a key internal document (Sears, Roebuck and Co. 1978). "They are as basic as blocking and tackling." The strategies included superficially novel departures from past practice such as limited selling of nationally branded products, but the focus was on centralized control of the breadth of product lines (variety within categories was to shrink radically to five or even three) and of other aspects of operations-to a substantial extent even advertising and pricing-that had since the 1920s been left to the Field organization and store managers. This seems to have been a conscious rejection of Wood's emphasis on democracy in the organization. This group hearkened instead back to an earlier phase in Sears's history where centralization achieved economies of scale in selling to a national market and everything else adapted to the centrally made decisions. The executive appointed to head the retailing group shortly thereafter told reporters in 1981 that he felt very strongly that Sears needed to approach its business as though it were a single

store. If there were a right way to do something, then that right way should be used in New York, Los Angeles, and Miami.

Another group, this one in the corporate office, saw the solution to the problem of Sears's earnings differently. This group's adherents appear to have taken the overstoring notion very seriously indeed. But they do not seem to have seriously envisioned any fundamental change in the autonomy of the store managers within their four walls and in their local market. They proposed to drop nothing. Instead, they wanted to fit new services into Wood's stores.

This was an essentially conservative group, identified with the Field rather than with headquarters. It wanted to preserve the Field's independence through decentralized responsibility. That was, the view ran, the heart of what it was to be a Sears store manager. They also had no desire to abandon the four-walls approach that gave that decentralized responsibility effective influence: the mosaic of stores all across the country, carefully sited to be in optimum locations in individual neighborhoods and carefully spaced so as not to intrude upon one another's market areas was not the problem either. Nor did this group feel that the problem lay in the time-hallowed selection of product categories Sears presented to the public. The problem was just that the presentation was tired. Sears needed to jazz things up. New fixturing was in order. Popular culture figures like Cheryl Teigs should be recruited to lend their names to privatelabel product lines. The catalogue covers should evoke a slightly hipper life.

The concept of Sears stores and their operations would be essentially unchanged. Demand would be stimulated with advertising and brand names. And people would be attracted to Sears by the addition of new businesses. These executives sought to find new businesses that would appeal to the customer they understood, the customer who valued the Sears that had been. They thought in terms of buying existing companies rather than, in the spirit of General Wood, developing their own new lines of business. Since the executives wanted to improve nationwide performance, they needed companies whose operations were also large and so, almost by construction, national in scope. They looked at companies in whose businesses trust was an important component, to complement the powerful positive reputation all polls showed Sears itself had with the American consuming public.⁹

They conducted market research. They had been in the credit-card business for two decades, principally to support their own sales, and were surprised to discover that their customers were undersupplied with financial services. Nearly 70 percent of Sears card holders with income greater than \$36,000 a year (over \$60,000 in 1996 terms) had no brokerage account. Fifty-seven percent of American households held Sears cards, more than any other. For households all across the income distribution, financial services were purchased from a wide variety of vendors. Surveys turned up evidence of some desire to consolidate these relationships.

9. One can trace the contours of this search in the files of Philip Purcell in the Sears Archive.

Developments in the external environment around this time made financial services operations attractive. Demand was visibly increasing. While the rate of family formation was down, existing families were aging. Having furnished their houses, they were beginning to save for their children's education and their own retirement. Sears could follow them through this life cycle. The customers could stay with Sears.

Inflation in the late 1970s had been in double digits, and investors were becoming both more sensitive to yields and more sophisticated. Entry was becoming easier. Because of technical legal details, Sears could enter this business unburdened by many of the regulations that would constrain competitors. If it could turn long-term (or even long-past and trusting) Sears appliance and insurance customers into financial-services customers, there was hope of avoiding the intense direct competition then going on between the Wall Street firms. Perhaps economies could also be reaped in distribution and selling costs through using the Sears national network of stores. Finally, the huge and relatively stable Sears cash flow provided a substantial resource in facing the investment risk. And parts of the business were even familiar. The Sears organization itself had immense cash flows to manage, and it did so successfully. By the early 1980s, when all this came to a head, Sears had run credit cards for thirty years. It had sold insurance for fifty. Allstate had dabbled in other financial products. All these ventures had basically been successful.

What would expanding into the financial services sector in a serious way do for the historic Sears operations (as opposed to the Sears income statement)? A significant amount of the investment in store sites and in advertising and public relations designed to generate store traffic was sunk. The Sears management hoped to build on this base. Sears customers were in the stores and in a buying mood. They could be induced, the managers thought, to buy financial services as well as durable goods. The consumer, in short, would benefit from one-stop shopping across an even wider range of goods and services than anyone previously had offered. The value of the fixed costs of running the store and of the real estate would rise.

The corporate managers at Sears clearly thought there was synergy between such new activities and the old activities of the firm. Philip Purcell, head of Sears's strategic planning group, said at the time that "[t]here is no reason why someone shouldn't go into a Sears store and buy a shirt and coat, and then maybe some stock. I don't consider that any more outrageous than the first idea like that that came up, that someone might buy a coat and tie, then buy auto insurance" (Weiner 1980).

The reasoning behind such a view is curious. The idea that people in the 1930s came in to Sears to buy clothes and then happened to buy insurance is far from Wood's conceptualization of his stores. Wood thought that people would come to buy tires and get their car repaired—and then also buy auto insurance. The intimate connection between specific products and services had become unclear in the following fifty years.

The parallel between auto insurance and, for example, stock purchases also misses important aspects of the services in question. Auto insurance is like a warranty on a product. It protects the purchaser of a car and of car parts against problems that may come in the future from the car. It is like a guarantee against defects in an appliance. But most financial-services products have none of these qualities. Instead of protecting purchasers, the products expose them to risk. There is no sense in which the consumer was to be protected or insured from a poor choice of stocks. The law of large numbers was not on the customers' side in financial services.

The imprecision of this parallel suggests strongly that the anticipated synergies between Sears and a financial-services firm would not come about. However profitable such an acquisition might be as a portfolio investment, it would not have a revitalizing effect on Sears retailing operations.

The conservative option, championed by the corporate leadership and the Field, carried the day. Resources were invested in store renovation. Images of Cheryl Teigs went into the stores and the catalogue. Merchandising was also simplified and decision making became somewhat more centralized. To this extent, the first group got its way. But these were small things. There was no large-scale reconfiguration of organization and infrastructure. In the traditional lines of business, the locus of control shifted a little. But in terms of infrastructure, it was more business as usual than not. On the other hand, the company began an extended process of considering financial-services acquisition targets. Two leads were pursued to fruition. First, Sears bought the real-estate brokerage Coldwell Banker. Shortly thereafter, it bought the securities brokerage house of Dean Witter.¹⁰

This managerial decision was not inevitable. The first group described above could have been given its head. There were other, even more radical alternatives for Sears. Before discussing the actual subsequent history of Sears in the 1980s, we want to flesh out a counterfactual Sears. It is hard to know how a large organization like Sears would have looked in this alternate world; we know from the history of the 1920s that change did not come easily to its farflung operations. Nevertheless, two models of merchandising were emerging at the time of this decision about the future of Sears. Each connects with the reasons the move into retailing earlier in the century had been successful. Either or both of them could have been the result of the first alternative, if that path had been chosen.

The avatar of the first model is Wal-Mart. This company generated tremendous profits in the 1980s through a commercial strategy that focused on keeping in touch with its workaday customers and keeping costs low. The most obvious foundation of its success was locational, but the means through which location was exploited is the theme we want to pursue. The parallels with Sears's strategy in the 1920s are striking.

^{10.} The search and negotiation processes are described in detail in Katz 1987.

Wal-Mart set up stores in towns its competitors reckoned to be too small to support a general-merchandise store. This was Montgomery Ward's policy of the 1920s in a new and more appropriate context. Wal-Mart was able to make a success of operating in these locations because its costs were significantly lower than those of its competitors. Some of the reasons this was so were sitespecific. Ground rents were lower. Staff compensation expenses tended to be relatively low because the stores were in places in which the opportunity cost of labor was relatively low. Advertising expenses were relatively low in part because rates in county papers tend to be lower than in big-city dailies and in part because the largest retailer in a district, particularly if it follows an everyday low pricing strategy, does not need to inform its potential customers about its existence and price levels as much as it would if it had real competitors and price competition through sales.

These savings are all in the cost category of selling, general, and administrative expenses, an important category but one much smaller than the cost of goods sold. Wal-Mart acquired goods cheaply. It got them to the stores cheaply. It used the shelf space extremely productively. These practices were the real foundation of its overall low costs. The low costs supported stores in smaller markets, and the markets were to a substantial extent expanded beyond what potential competitors might have thought possible by passing on some of the lower costs in lower prices.

Wal-Mart acquired goods cheaply the way Sears had traditionally operated: it offered economies of scale to suppliers while making sure whenever it could that the suppliers were more dependent on Wal-Mart than Wal-Mart was on them. The scale economies derived from the fact that Wal-Mart placed orders centrally, that is, on behalf of the entire company rather than on a store-bystore basis. Since Wal-Mart ran a high turnover business, these orders were large. Wal-Mart took care to use multiple sources whenever the good was not branded. This limited the bargaining power of suppliers. Wherever possible, Wal-Mart arranged that its orders were very important to each of its partial suppliers. Sometimes it accomplished this end simply by being a very large (if not the dominant) customer. Sometimes it did this by encouraging the supplier to make sunk investments in the relationship, thus creating barriers to exit from it. Wal-Mart's policy echoed Sears's policy in its incomplete but still powerful vertical integration with its suppliers.

Wal-Mart also had several strategies that were novel to the industry for getting goods to the stores cheaply. The first of these concerned its use of distribution centers. Rather than have vendors ship goods directly to store doors, Wal-Mart had 80 percent of the goods channeled through a small number of Wal-Mart distribution centers. In these, the truckloads of shipments from individual vendors were broken down and combined into full-truck shipments for particular (clusters of) Wal-Mart stores. (Since Wal-Mart stores were commonly relatively close to one another, it was often efficient to supply several at once.) Since the quantities of an individual item destined for a particular store in such a truckload were often small, resupply had to be frequent. But since the trucks were running full and the stores were clustered, this did not represent a serious inefficiency.

The second supply strategy supported the first. Wal-Mart encouraged national vendors and vendors from other regions of the country to set up production facilities in the regions in which the Wal-Mart stores were. That way, the trucks could fill up with goods bound for the distribution centers once they had disgorged their cargo. This strategy was obviously limited by the extent to which the vendors' production processes had economies of scale beyond Wal-Mart's needs. But Wal-Mart trucks typically ran back 60 percent full, so the limitations cannot have been extreme.

The third important aspect of how Wal-Mart was able to operate profitably in these previously infeasibly small markets strikes our theme of keeping in touch with customers: it kept revenues high and unit costs low by using its shelf space efficiently. Very early on, Wal-Mart began investing in data-capture and transmission technology that enabled it to track the precise details of what was selling where. Its product line was focused, generally speaking, on unflashy categories for which there was steady demand. Nonetheless, tastes did vary across space and time. Getting the maximal value out of the available shelf space, both in terms of the speed with which products put out would be sold and in terms of the prices they would command, turned on monitoring what was in demand at each location and making sure some was available when customers sought it out. Instead of relying on high-variable-cost and low-reliability staff inventories (that is, physical counts, inevitably taken only at intervals), Wal-Mart monitored the incoming shipments and the outgoing sales through scanners at the registers and could for practical purposes do this continuously. The company kept detailed statistics on which products and brands (even in which aisle locations) generated maximum profits per square foot of shelf space. It exploited the frequency of shipments to avoid stockouts without having to keep large in-store stocks. And it minimized in-store storage facilities in order to maximize productive selling space. The warehouses, after all, were in even lower-rent districts.

Wal-Mart pursued lines familiar to Sears. But it pursued them in a streamlined way based on investment in new information technology. Sears was operating with an older version of this technology in which only highly aggregated information reached management. Sears's practices kept its costs high, its ordering cycle long, and its stores operating separately rather than as a unit. For Sears to have competed directly with Wal-Mart, it would have had to rethink from the ground up how goods passed from manufacturers to consumers. Sears managers told themselves that Wal-Mart and other low-price firms succeeded because they sold cheap goods, representing a move down-market that Sears would not follow. The focus on the goods sold obscured the innovations in the way Wal-Mart and other firms organized like it handled the products. The goods were cheap partly because Wal-Mart's costs were low. Wal-Mart pursued this approach selling goods for which there was a reasonably steady and predictable overall demand. A different approach to keeping costs low and keeping in touch with the customers suggests itself for goods with a more substantial fashion content, that is, goods for which demand is not reasonably steady and predictable but is, rather, quite volatile over time.

This second approach may be identified with the practices of companies such as The Gap and The Limited, both enterprises that for practical purposes started after scanner technology was developed and computing power became cheap. The approach they used also relies importantly on rapid and inexpensive capture of sales data.

In traditionally organized department-store retailing, merchandising decisions were made by buyers who supervised both the selling and the procurement function. The advantage of this bundling was that these individuals could oversee the customers making up their minds and could therefore gather information not only on what actually was selling but also about what would have sold if only it were in stock. The disadvantage of this arrangement was the limited nature of the scale economies it afforded. No matter how good the taste of individual buyers or how thorough their knowledge might have been of one store's clientele, they could under this traditional system only buy for the department and the clientele they could see. For many scores of years, there was one buyer for each department for each store, even after the growth of chains of department stores. Even until quite recently, aggregation was confined to narrowly defined regions.

A further consequence of this system was that the orders booked with individual vendors tended to be small even when the aggregate orders coming from the company that owned the store were large. Individual buyers therefore did not have much bargaining power with the vendors. It was difficult for the vendors to minimize setup costs of machinery, dyeing equipment, and even cloth procurement under such circumstances. Needless to say, the vendors would have preferred to have these economies (if for no other reason than for the reduction in complexity of their own operations). To some extent they insisted on being paid for the inefficiencies, in effect ignoring the fact that orders from Macy's New Haven and Macy's 34th Street were both orders from R. H. Macy and Company. To some extent they maneuvered around the inefficiencies by insisting on long delivery lags. Under this system, Macy's had to commit to cuts and colors five to nine months before the goods reached the shelves. This was obviously a disadvantage in selling fashionable goods. Mistakes were inevitable and expensive-either heavy discounts or expensive staff time and resources were required to get the unwanted goods out of the way and replaced by goods with better prospects.

A system in which orders were placed on the basis of much more current information and then delivered promptly would have been better. There would have been fewer fashion mistakes and less expense in rectifying them. Such a system could be made attractive to the vendors if setup costs were lower because production runs were longer. Regional and even national orders from chains, that is, from integrated buying, would call for these longer runs. Companies like The Gap and The Limited delivered precisely such orders. There were some savings from requiring fewer buyers. (These were offset only a little by needing to pay these individuals more. The old system had required very many buyers.) There were some savings from tying up working capital for shorter periods and some—though less than one might have expected—from economies of scale in production. But the buying companies using this system did not want to claw back all the cost reductions their larger orders were yielding the vendors. Time, in the twin guises of savings on reduced markdowns and increases in sustainable initial markups, was far more valuable. These improvements were made possible during the 1980s by the growth of information technology, in which computers were used to record sales as they occurred, integrate and analyze the resulting data, and communicate the results directly to producers (Abernathy et al. 1995).

Raff and Salmon (1992) contains provisional estimates of how much of an advantage this system offered circa 1988 (around the time of a famous leveraged buyout that correctly identified the consequences of the inefficiencies of traditional department store practice but wildly overestimated how substantial the improvements might be). The estimates prove to be quite substantial. The final yardstick concerns the difference between the two types of stores in operating income as a percentage of sales in a key apparel category. The system's advantages come to 55–60 percent of the difference. The individuals behind the two companies in question became billionaires during the decade in which their companies introduced this system and the traditional department stores did not adapt. These billions were, like those of the founder of Wal-Mart, the fruit of keeping in touch with what consumers wanted to buy and of keeping costs low in ways competitors found difficult to replicate.

These savings depended on having accurate and current information. The means by which the most accurate and most current information could be obtained were changing rapidly in the 1980s, and the standards of accuracy and currency were rising fast. Sears would have had to be on top of the new information technology to transform itself into a chain like Wal-Mart or The Gap. To do so would have been harder than it was for these new competitors because Sears had disadvantages growing out of its prior success. Its very size was in some respects an impediment. It needed an information system that would be able to handle national-scale transactions and inventory tracking for the very large product line that Sears offered. It even needed, on a more mundane level, some way to track its catalogue and retail operations separately. They were all in the same rich soup around 1980, and it was impossible for Sears's management to tell which orders had done well and where the purchase variances were relative to plan. Although Sears's great size made the problem hard, it also bestowed one advantage for solving it: Sears was big enough and rich enough

to have been able to hire the best people and to stay at the forefront of the new possibilities.

The profits of Sears's competitors were partly the result of opening freestanding specialty stores. Customers knew exactly what was contained in these stores, and they entered them to buy specific goods. The Sears concept of four walls, by contrast, was a vision of one-stop shopping. People in this view thought hard about a shopping trip and then bundled the whole family into the car for a trip to Sears. It was far from The Gap's and The Limited's notion that a shopper would make a trip just for a sweater or a bra. For Sears to follow the lead of these specialty stores, it would have had to do more than update its computers. It also would have had to breach the four walls of the Sears store and establish independent specialty outlets between the large stores.

What is the relationship between these two examples? The Gap and The Limited sold goods where fresh information was absolutely critical to success because goods that did not sell soon would never sell at first price. The cost of fashion mistakes was high. Wal-Mart sold goods that would always sell eventually, but it too wanted to stay in stock with goods that were selling now. In apparently very different categories, the efficient use of shelf space was a prime cause of the competitive success of both. Sears, diverse as it was, might have had something to learn.

These firms provide models of radical innovations available to Sears. We do not mean to argue that Sears should have blindly imitated all details of operations of Wal-Mart or The Gap. Instead we maintain that innovations like those of the firms we have just discussed were becoming the competitive standard in all categories in which any firm adopted them. We therefore believe that such innovations represented a more appropriate program for Sears than the acquisitions being contemplated unless Sears intended to abandon the categories in question entirely. If Sears had been able to adopt some of the new technology that enabled more rapid capture and exploitation of information, it might have kept up with the rapidly changing market. If Sears had rethought its internal operations and taken advantage of some of the progress of technology since Rosenwald's distribution plant was built, it might have been able to maintain its traditional economies of operation into new decades.

This is not a wildly speculative alternative. It was rumored in this period that Sears was contemplating opening chains of free-standing auto equipment stores, chains of hardware stores, chains of children's clothing stores. These are all categories in which Sears products had good reputations and substantial market share. They are all categories in which other entrepreneurs set up in the course of the 1980s in the style we have described and operated extremely profitably. The most famous such success took place in retail terrain as apparently unattractive as the usually highly seasonal category of toys. But even there, entrepreneurs with the new information technology in hand succeeded in making the narrow-and-deep approach (Raff and Salmon 1992) with its tre-

mendous selections within the narrow categories profitable. If it could happen there, where might it not? Sears had a business it valued in each of the categories listed above. But it proceeded in the new aggressive ways in none of them. The very idea seems to have been thought too organizationally disruptive.

Why were the stores so sacrosanct? Perhaps these people feared cannibalization of the vast network of stores already in place. Perhaps they feared that it would be impossible to evaluate the success of any of the parts in a mixed system. Perhaps it was all cultural: perhaps they felt that too much of the company's working management had come up through the old decentralized system, could not imagine life at Sears without it, and would simply quit, leaving Sears in the lurch, if too much changed.

The resistance to free-standing single-category stores was an even more profound constraint than it appeared. It was clearly feasible to implement the information technology required to run such category-killer-like operations on a free-standing basis: this was the foundation—"the stick that stirred the drink," to borrow a phrase from the sports pages—of the blossoming of the category killers themselves. But modifying the vast corporate software that coordinated and controlled all the multifarious lines of Sears was a task of immensely greater proportions and impediment, and was clearly not feasible at the time.¹¹ The four walls were not just ramparts. They were tremendous barriers to progress.

Sears held onto Coldwell Banker and Dean Witter for a decade. The financial results were basically strong. (Indeed, in some years, they were the bulwark supporting a generally anemic performance of the merchandising and sales operation.) The operations of these two divisions even compared well to the results of comparable firms in their own industries. But these operations' successes did not show the synergies that had been foreseen. The financial companies found that locating offices in Sears stores offered no advantages to them. In fact, outlets at Sears fared worse than independent locations, and Dean Witter's agents resisted assignment to Sears with all their might (Hoge 1988, 250). Sears's customers were not attracted to a single source for consumption and savings vehicles. They seem to have trusted Sears to make washing machines—which could be returned if they did not operate properly—but not to make investments—which couldn't.

The outcome was actually much worse than a simple lack of development of the hoped-for synergies. Merchandizing group sales at Sears did not grow nearly as rapidly in the 1980s as those of Kmart and Wal-Mart. As shown in table 6.2 Kmart surpassed Sears in in the early 1980s. So did Wal-Mart by the end of the decade, despite the fact that Wal-Mart had started from a much smaller base. Despite some relatively good years in the mid-1980s, the profile of Sears results by the end of the decade was such that the retail operations actually appeared to be a drag on overall performance. The requirements of

^{11.} Gretchen Kalsow, personal communication, 21 February 1997.

Competitors (millions of dollars)				
Chain	1982	1985	1988	1991
Sears	18,779	22,092	24,252	24,757
Kmart	16,772	22,420	27,301	34,580
J. C. Penney	11,414	13,747	14,833	16,201
Wal-Mart	3,376	8,452	20,649	43,886

Table 6.2	Total Revenues of Sears Merchandizing Group and Some
	Competitors (millions of dollars)

Source: Annual reports.

competitiveness were evolving. Large volume was not sufficient in itself for a firm to keep up. Sears was not making the complementary investments. The asset value of the Sears name was wasting.

Shareholder activists, and others, noticed this. They thought they could make their portfolio investment decisions for themselves, and that the job of Sears management was to nurture and exploit the Sears retailing franchise. They were therefore opposed to improving the stock returns by divesting retail. The Sears retailing operations, they thought, were still a potentially valuable asset. Instead, they demanded improvement in the retailing performance. Market share had been eroding. Entry-driven increased competition was clearly a part of this, but it was suspected that intractable bureaucracy and an out-ofline cost structure driven in part by a failure to keep up with the infrastructure investments being made by firms competing for the Sears customers' business played significant roles as well.

By the early 1990s this process had gone far enough to put Sears onto the list of potential takeover targets. Senior management took defensive actions. They also began more structural changes. Among the changes offered was selling the financial acquisitions and, equally, a stake in Allstate. Now retailing would have to be fixed or there would be nothing.

By 1996 in-store boutiques were the leading market concept. Sears could still get good procurement prices: it was the largest single customer of Levi Strauss. The head of Sears logistics had come to the job straight from the analogous army staff position in Operation Desert Storm.¹² The changes he oversaw were dramatic. The number of channels store managers had to order through shrank by up to two-thirds. Suppliers began to make output more promptly after receiving orders and shipped more frequently. The goods were therefore fresher. Sears could also cut its own inventory holdings and thus inventory carrying costs. The capacity utilization of delivery trucks that ran from Sears's distribution centers to the stores rose from 60 percent to 90. The more frequent deliveries freed up in-store storage space for sales use. Altogether, selling, general, and administrative expenses (SG&A) had fallen by midsummer of 1996 to 21.6 percent of sales, more than two points better than the close

^{12.} For these details and more, see Berner 1996.

competitor J. C. Penney and only two points worse than the superbly organized May Company. And it was not clear that forward progress had stopped.

6.5 Conclusion

We have argued in this paper that Sears, Roebuck and Company faced similar challenges in the 1920s and 1980s. In both periods, the retail operation was working well and generating respectable returns. But both times Sears also faced a stagnating market. In neither decade did the prospect of carrying on in the traditional fashion offer much promise.

In each period, the company set off on something new. In the earlier period, Sears added retail stores to its mail-order operations. In the later period, Sears added financial services to its retail stores. Retail stores proved to be wildly successful; financial services ultimately a distraction. Why?

We opened this discussion by asserting that successful responses to situations like these focus on an attractive market that can be supplied exploiting a firm's existing competitive strengths. Retail stores in the 1920s embodied this combination. The attractiveness of the market was the result of demographic changes and a new technology. The automobile and its related activities created new jobs for Sears's customers and new opportunities for them to spend their earnings. Retail stores enabled these customers to continue to patronize Sears with the aid of the new technology.

Information technology was to the 1980s as the automobile was to the 1920s. It provided a new way for consumers to interact with retailers. But while the change in the 1920s was due to the consumers' use of the auto, the change in the 1980s was due to the stores' use of information technology. Cars brought consumers to the stores that had a wide range of products; computers enabled stores to bring to consumers the selection of products that consumers demanded. We have described in each case how the new technology was used by some merchants to attract a profitable and defendable base to their stores.

But it was not used to this effect in Sears's stores in the 1980s. Where Wood had really shaken up the organization, the new changes shook up people in the organization without really shaking up the organization at all. Sears in effect opted to ignore investment possibilities in retailing that would have had a powerful positive effect on its future viability and instead concentrated its entrepreneurial energies on expanding into financial services instead. Why did they think this was a good choice, and why was it not?

Financial services were presented as a way to utilize the presence of the customer in a Sears store. Instead of tailoring the merchandise to the customers' demands—as the new information technology allowed—Sears placed its bets on deciding what the consumers wanted. Instead of altering the merchandising of goods, merchandising was carried on roughly as it had been and financial services were simply added in on top. But the hoped-for synergy be-

tween financial and retail services did not materialize. The presumption that people would make yet another major purchase on their trips to Sears was erroneous.

Sears was able to disentangle itself from its new operations as easily as it began them. While there is no doubt that financial services were a profitable market, Sears had no special advantage in that market.

While this seems obvious in hindsight, it must not have been so obvious at the time. Sears debated its strategy in 1980 as it faced the dilemma of a stagnating market. If individuals reasoned exactly along the lines of this paper, their thoughts seem to have gotten no farther than the rumor stage. The group that reasoned most closely to the analysis of this paper lost out to the group that led Sears into finance. Management very nearly lost control of the company in consequence. Facing vigorous new entrants once the company refocused on retailing, the task of regaining place and momentum was only harder. That it proved possible to regain some place and momentum is a credit to management. But it is no measure of the forgone profits.

References

- Abernathy, Frederick H., John T. Dunlop, Janice H. Hammond, and David Weil. 1995. The Information-Integrated Channel: A Study of the U.S. Apparel Industry in Transition. Brookings Papers on Economic Activity: Microeconomics, 175–246.
- Berner, Robert. 1996. Retired General Speeds Deliveries, Cuts Costs, Helps Sears Rebound. *Wall Street Journal* (16 July): A1, 7.
- Brennan, Edward. 1980. Challenge 81. Speech delivered 6 August. Sears Archive, Hoffman Estates, IL.
- Chandler, Alfred D., Jr. 1977. The Visible Hand: The Managerial Revolution in American Business. Cambridge: Harvard University Press.
- Dore, Ronald. 1986. Flexible Rigidities: Industrial Policy and Structural Adjustment in the Japanese Economy, 1970–1980. London: Athlone.
- Emmet, Boris, and John Jeuck. 1950. Catalogues and Counters: A History of Sears, Roebuck and Company. Chicago: University of Chicago Press.
- Hoge, Cecil C. 1988. The First Hundred Years Are the Hardest: What We Can Learn from the Century of Competition between Sears and Wards. Berkeley: Ten-Speed Press.
- Hower, Ralph. 1946. History of Macy's of New York, 1858–1919: Chapters in the Evolution of the Department Store. Cambridge: Harvard University Press.
- Katz, Donald R. 1987. The Big Store: Inside the Crisis and Revolution at Sears. New York: Viking.
- Purcell, Philip. Diversification Files. Sears Archive, Hoffman Estates, IL.
- Raff, Daniel. 1991. Robert Campeau and Innovation in the Internal and Industrial Organization of Department Store Retailing. *Business and Economic History* 2d series, 20:52–61.
- Raff, Daniel, and Walter Salmon. 1992. Allied, Federated, and Campeau: Causes, Outcomes, Consequences. Harvard Business School Working Paper.

Rosenwald, Julius. Papers. Regenstein Library. University of Chicago. Chicago.

- Sears, Roebuck and Co. 1978. The Yellow Book. Typescript. Sears Archive, Hoffman Estates, IL.
- Tedlow, Richard. 1990. New and Improved: The Story of Mass Marketing in America. New York: Basic Books.
- Toniolo, Gianni. 1995. *Economic Growth in Europe since 1945.* New York: Cambridge University Press.

Weiner, Steve. 1980. Sears Finds Broadening Its Image Takes Time, Presses Staff to Adjust. *Wall Street Journal* (31 October): A1, 20.

- Wood, Robert. 1924. Past, Present, and Future of the Mail-Order Business. Robert E. Wood Papers, Herbert Hoover Presidential Library, West Branch, Iowa.
- ———. 1950. On to Chicago. Speech delivered 4 May. Sears Archive, Hoffman Estates, IL.
- ------. 1961. Oral History. Butler Library, Columbia University, New York.

Comment Thomas J. Misa

Daniel Raff and Peter Temin revisit the story of Sears, Roebuck in the twentieth century to advance an analytical agenda of exploring certain neglected aspects of the interaction of economics and history. Their paper analyzes decision making at Sears during two critical periods in the company's history: in the 1920s and in the 1980s. Their analysis focuses on changes in technology, markets, entrepreneurship, and information flows. They repeat the well-known finding that Sears successfully met the challenge in the 1920s of expanding urban markets and increasingly mobile consumers by opening retail stores advantageously placed in the outlying districts of urban areas. Sears customers not only drove their automobiles to the stores but also bought automobile parts, automobile tires, and automobile insurance there. In company with other writers, they are impressed with Robert Wood's prescient vision for the company as well as the way that his decentralized policies optimized information flows-for instance by decentralizing decision making about stocking individual stores while aggregating the resulting orders to gain economies of scale from suppliers.

Given hindsight, Raff and Temin are deeply critical of the decisions made in the 1980s. While Sears in the 1920s captured competitive advantages by understanding the opportunities presented by the interaction of changing markets and new technology, in the form of urban consumers driving automobiles, the company in the 1980s apparently did not appreciate that the emerging in-

Worthy, James. 1984. Shaping an American Institution: Robert E. Wood and Sears, Roebuck. Urbana: University of Illinois Press.

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formation technology presented opportunities for retailers to coordinate production, distribution, and consumption and that demographic and economic changes were undermining the purchasing power of its customer base of young, blue-collar families. These market- and technology-driven opportunities were captured more fully by Wal-Mart and specialized retailers like The Gap. After lengthy debate, and absent a strong entrepreneurial vision like Wood's, Sears diversified into financial services. While earlier writers, including Worthy (1986, 260-69), extolled the logic of these purchases and confidently predicted that the company would go from success to success, Raff and Temin have the benefit of more-recent hindsight. It turns out that not enough Sears customers, however underprovided they were with financial services, wanted to go to Sears and-at one stop-choose a washing machine, buy a house (from Coldwell Banker) to put it in, and invest in securities (from Dean Witter) with the leftover money. There are a number of puzzling questions that follow from the statement of Philip Purcell, head of Sears's planning group, "there is no reason why someone shouldn't go into a Sears store and buy a shirt and coat, and then maybe some stock." Would customers choose the securities of their shirt company? Does one choose government bonds and a white refrigerator to accompany a Federal-style house? Apparently Sears top management thought that family decisions about consumption are taken at the same moment as family decisions about investment. Raff and Temin hint that the centralizing tendencies of the executives backing diversification made the company even less nimble, less consumer-sensitive, and hence less competitive in presentday fluid, segmented markets. After reviewing the alternative technology and business strategies of The Gap, The Limited, and Wal-Mart, the authors conclude that these firms' innovations in capturing sales data and using them to guide shelf stocking and coordinate purchasing "were becoming the competitive standard in all categories in which any firm adopted them."

At least three dimensions of the Sears story merit greater attention for the themes of this paper: advertising, scale, and gender. Advertising appears prominently only in the prehistory to the 1920s, in the form of the famous Sears catalogue; it appears obliquely in the brief comments that Wal-Mart found advertising rates to be lower in small-town papers compared with big-city dailies and that Sears placed images of Cheryl Teigs in the stores and catalogue. Otherwise, it appears that Sears in the 1920s and 1980s engaged in little or no advertising to speak of. A company's advertising is one easily located historical source, which often speaks volumes about who the prospective consumers are, or who the company hopes them to be. After all, it was just in the 1920s that advertising itself becomes an industry. Indeed, Sears's history seems to be one long "fable of abundance" (Lears 1994). Greater attention to Sears advertising would not only flesh out the company's views of its customers, but would also link this present paper to other historians' efforts to examine the cultural productions of American business.

Second, there is the question of scale and the dynamics of decision making.

While I appreciate the point that decision making by committee is not inherently superior to decision making by executive fiat, there is some unfairness in assuming that Sears in the 1980s could have been reformed if only an entrepreneurial figure like Wood in his prime had been at the helm.¹ In the 1980s Sears, as the authors recount, was a vast enterprise. Unlike the 1920s its employees through stock ownership held the largest single share of the company. On the notion that stakeholders (not only stockholders) in a company ought to have some say in how the enterprise is managed, I am not persuaded that autocratic decision making is desirable. Another intriguing point briefly touched upon in the paper is the outstanding quality of General Wood's lieutenants. In the steel industry such "heroic" entrepreneurs as Andrew Carnegie and Charles Schwab were remarkably well served by loyal lieutenants.² Not only are such lieutenants the proximate source of information, ideas, and alternatives; they also may constructively dissent from the top executive's initial judgment. The necessity of going Inside the Business Enterprise (Temin 1991) to uncover the dynamics of such decision making remains an important insight. In this regard, I wanted more information on the "extensive debate" within Sears during the early 1980s and more analysis of it. Both groups of managers offering rival strategic plans for the company (should they be labeled the retail-reformers and the corporate-diversifiers?) had a strong identification with "the Field," that is, the store-level managers. There were a great many managers with field experience, and any retailing strategy required their active assistance and enthusiasm. Indeed, reconceptualizing business "strategy" as an emergent and negotiated phenomenon-relaxing the rigid notion of strategy being solely a top-down creation-helps comprehend the puzzle of why "the store" was so sacrosanct (at Ward in the 1920s and at Sears in the 1980s).

Third, the analytical category of gender is hinted at in this paper and, to understand the success of the retailing concept in the 1920s, it seems a useful category to pursue. In contrast to the full line of "hard" and "soft" goods presented in the Sears catalogue, from underwear to farm machinery, Raff and Temin indicate that the early retail stores focused on so-called hard goods (hardware, furnishings, farm implements, plumbing). "They were men's stores far more than women's," they write. Yet fieldwork at our local Sears store, located in an once-outlying area of urban Chicago, as well as inspection of my family's credit-card statements, confirms that consumption today is largely in the hands of women. I imagine that behind such a gender reversal—something

1. Wood continued past his prime, resigning the board chairmanship of Sears in 1954 at the age of seventy-five; meanwhile, in the mid-1950s, Ward was crippled by the incoherent leadership of Sewell Avery. See the unflattering anecdotes recounted about both men in Tedlow (1990, 330–37).

2. It can be fairly argued that Andrew Carnegie, absent the loyal opposition of Charles Schwab and persistent advocacy of outsider Henry Oliver in 1897, would not have bought the Minnesota ore lands that made Carnegie Steel into a vertically integrated company. Similarly, Schwab as owner of Bethlehem Steel, absent a crucial intervention by Archibald Johnston in 1907, would have stopped the firm's entry into manufacturing special heavy-duty structural steel beams, a market that Bethlehem dominated to great profit for decades. See Misa (1995). like the transformation of the Marlboro brand from a woman's product to a man's—must be an intriguing story of markets, advertising, and the gendered construction of consumption patterns.

Finally, I would like to take a step back and reflect on the style and focus of this essay, and on the presumed audience for business and economic history. I would label Raff and Temin's present essay as lessons learned from a manager's perspective. The managers of Sears, they state, "could not free themselves from modes of doing business that were tried and true but rapidly becoming outmoded." The worst prospect in view was that "management very nearly lost control of the company." I think there must be larger questions at play, relating to the "interaction of economics and history" that the authors hint at in their introduction. Given the present diversity of approaches in business and economic history (a short list must include Chandlerian, institutional, evolutionary, and cultural approaches),³ this essay needs more explicitly to justify its approach and to relate its approach to these others. I would also welcome a further elaboration on the large and interesting questions relating to the interaction of economics and history. By positing that long-range profitability results when firms develop competitively valuable asymmetries that frustrate the familiar forces of competition and free entry, and showing how a large firm can survive while making below-average returns on investment, they appear to wipe out one classic rationale for capitalism. From a public-policy perspective, the phenomenon of "wasting assets" seems to be a justification for regulatory intervention.

References

- Lears, T. J. Jackson. 1994. Fables of Abundance: A Cultural History of Advertising in America. New York: Basic Books.
- Lipartito, Kenneth. 1993. Innovation, the Firm, and Society. Business and Economic History 22, no. 1:92–104.
- ——. 1995. Culture and the Practice of Business History. *Business and Economic History* 24, no. 2:1–41.
- Misa, Thomas J. 1995. A Nation of Steel: The Making of Modern America, 1865–1925. Baltimore: Johns Hopkins University Press.

———. 1996. Toward an Historical Sociology of Business Culture. Business and Economic History 25, no. 1:55–64.

Sicilia, David B. 1995. Cochran's Legacy: A Cultural Path Not Taken. Business and Economic History 24, no. 1:27–39.

Tedlow, Richard S. 1990. New and Improved: The Story of Mass Marketing in America. New York: Basic Books.

Temin, Peter. 1991. Inside the Business Enterprise: Historical Perspectives on the Use of Information. Chicago: University of Chicago Press.

Worthy, James C. 1986. Shaping an American Institution: Robert E. Wood and Sears, Roebuck. Updated edition. New York: New American Library.

3. See Lipartito (1993, 1995), Misa (1996), and Sicilia (1995) as well as the publications issuing from the Hagley conferences.