Supply-Side History of the Great Merger Movement: The Harvester Trust as an Example

Kenneth Fox[1]
SUNY - Old Westbury

In his landmark 1959 article "The Beginnings of 'Big Business' in American Industry," Alfred Chandler assesses the major factors associated with the rise of large industrial firms in American business [6]. Economic historians characterize Chandler's explanation, which emphasizes the completion of a national railroad network in the 1870s and 1880s and the emergence of an urban market for manufactured products, as "demand-oriented." Chandler attributes the appearance and eventual dominance of large industrial firms primarily to autonomous changes in the demand for industrial goods. The nineteenth century revolutions in transportation and communication were also crucial, but in conjunction with demand. The railroad, the telegraph, and later the telephone, facilitated the development of the urban market and greatly enhanced the ability of a large firm to coordinate production and satisfy demand nationwide.

But convincing as this argument may be, economic historians comment, why have issues of supply been excluded? Perhaps supply factors were not causative, but at the least they deserve to be evaluated. The criticism is well taken. Although supply-side forces have been researched, Chandler's own subsequent writings, and related work by others, have continued to favor demand-oriented explanations. To date, controversy has not been joined between demand and supply approaches, nor has there been what the economic historian would like best: a judicious melding of forces from both sides of the market.[2]

Let me pose a more closely focused question than Chandler's, consider some elements of a supply-oriented response, and illustrate the supply-side approach with examples from the formation of the harvester trust, International Harvester Company, during the great turn-of-the-century merger movement. I will conclude with proposals for a debate between demand- and supply-side proponents that I hope can begin soon.

---

[1]Kenneth Fox is Visiting Associate Professor of Urban Studies at the State University of New York at Old Westbury. Correspondence should be directed to his home address: 627 Quinnipiac Avenue, New Haven, CT 06513.

[2]Chandler's style of demand-oriented analysis has been most imaginatively applied by Glenn Porter and Harold Livesay. See [30]. For Chandler's subsequent works, see [7] and [8].

My question is: In the period from the beginnings of large-scale industrialization around 1850 to the subsiding of the great merger movement in 1904, why did industrial firms become big, ultimately surpassing railroads and other types of firms in size and shifting American business to a manufacturing emphasis.[3] I will consider the potential role of three supply factors in the growth of industrial firms: labor, capital, and entrepreneurship, and then propose an explanation for how the supply of capital and entrepreneurship affected the late nineteenth century manufacturing firm.

The most underrated supply-side candidate in the question of the origins of big business in industry is, of course, labor. Labor was probably the most important factor contributing to the increase in firm size in manufacturing in the late nineteenth century. Labor played a fundamental part in creating the circumstances triggering the turn-of-the-century industrial merger movement. The reasons were industrial labor's intransigence to compulsion in the production process, and its power to command a rising real wage throughout the late nineteenth century and on up to the 1919-1921 Depression and the inflation of the mid-1920s.

The American industrial working class became increasingly united, powerful, and militant from the 1850s onward. Labor history has emphasized workers' struggles and hardships in a strongly partisan manner, always implying that what was achieved was far less than what might have been won. But from a business perspective it is clear that the cost advantages of the large manufacturing firm over the small one would have vanished if the workers were drawn from a weak, demoralized working class. Large manufacturers of the late nineteenth century paid higher wages than smaller ones, and working conditions in large plants were typically less oppressive than in small firms. Yet productivity per dollar of labor was greater in large plants.

Marxist theory attributes the rise of big business in industry almost exclusively to labor, as Marx originally emphasized in his general law of capitalist accumulation: the accumulation of capital is the development of the productive forces of labor. Stephen Hymer and others have read

---

[3]My question differs from the one Chandler tried to answer in focusing specifically on reasons for the growth of firms to very great size. The behavior of firms is more central to the analysis of supply factors than to consideration of demand-oriented issues. Demand-side forces, such as urbanization and its accompanying changes in life style, needs and tastes, can potentially be satisfied by the proliferation of small firms. Demand-related factors in the late nineteenth century could thus have stimulated a very great expansion of manufacturing without the simultaneous emergence of very large manufacturing firms. A serious deficiency in Chandler's 1959 article, and in much of his subsequent writing on the question of bigness, has been this failure to consider the issue of firm size separate and apart from questions of why manufacturing grows as an economic sector or why specific industries grow. Jeremy Atack has done an excellent evaluation of the question of firm growth, including an ingenious empirical test of Chandler's argument as an explanation for firm growth 1870-1900 See [2].

Chandler and the demand-side historians enthusiastically, emphasizing the congruence between the demand-oriented literature and a Marxist analysis from the supply-side [17]. Arguments grounded in Marxist theory have also contributed most to explaining the rise of what Chandler calls "urban demand" and the "urban market," factors that deserve far more investigation from writers of all persuasions [11].

The virtual invisibility of labor as a factor in American business histories is a consequence of the unwritten "division of labor" between business historians and labor historians. Business history does not discuss workers, and labor history does not discuss businessmen, although historians of both species recognize how much is being lost in the process. Robert Ozanne's studies of workers and wages at McCormick and International Harvester represent one of the very few cases where the concerns of business and labor history have been combined [28; 29]. I will not discuss labor's role in the International Harvester story in this article, but I hope to build on Ozanne's excellent beginnings at a later time.

Most research by business historians on supply factors has focused on capital and entrepreneurship. The promise of large returns attracted capital to manufacturing in the nineteenth century. Investment in manufacturing stocks and securities boomed in the 1890s and surpassed trading in government and railroad securities [25].

Capital plays a leading role in analyses of the turn-of-the-century merger movement. "Profit maximization" and "elimination of excessive competition" explanations for the merger movement present acquisition and merger as strategies for reducing excess productive capacity, fixed capital, in an industry. Inherent in these arguments is the assumption that capital for expansion was readily available. Without a predictable stability to the markets for industrial products, however, continued investment rapidly turns into "cutthroat competition." "Trustification" of an industry, the consolidation of the majority of productive capacity in a single firm, established stable relationships among the industry's major capital investors and allowed future decisions about productive capacity to be made primarily in terms of demand considerations. Consolidating firms typically incorporated as "holding companies", which facilitated concentrating decision-making power in a few hands. Ambitious captains of industry turned to struggling for control against their fellow trustees and directors, abandoning the heady risks of massive production expansion and price slashing characteristic of the competition wars of the 1880s and 1890s.[4]

---

[4]There is a hiatus in the demand-oriented literature when it comes to mergers. Chandler's 1969 article, "The Structure of American Industry in the Twentieth Century: A Historical Overview," for example, is rich in descriptive analysis of firm strategies and the rise of oligopoly in some industries but not others [7]. Yet he includes no analytic discussion of merger as a firm strategy. Merger is a strategy for firm growth and he discusses it as a function of demand factors. My argument is the same as John Moody's in his controversial The Truth about the Trusts [24]. Moody argued that trusts were beneficial to the economy because they structured and stabilized competition and thereby made investing capital in corporate stocks and bonds more predictable and rational.

Entrepreneurship entered the modern era of business history with a bad name, due to the sensationalism of the "robber baron" literature. Entrepreneurship cannot compete for recognition as a cause of the rise of bigness, or of the merger movement, unless it is treated as a social quantity, to be explained "sociologically." Joseph Schumpeter pioneered the social theory of entrepreneurship and Arthur H. Cole, Thomas Cochran, and others working within the auspices of the Harvard Research Center in Entrepreneurial History made impressive advances in research and writing in the late 1940s and 1950s. Cochran's Railroad Leaders introduced the concept of entrepreneurship as a "social role," a particularly interesting methodological innovation [9].[5]

The supply of entrepreneurship can affect the bigness of industrial firms if it brings pressure to bear upon firms, by some means, to absorb entrepreneurial talent and energies. One way this can come about is when industrial firms are intricately intertwined with the family property and family destinies of their owners. Succeeding generations of talented, energetic offspring become a supply of entrepreneurship that the family firm will attempt to absorb through expansion. I contend below that this kind of situation prevailed in American industry in the late nineteenth century.

Another situation in which the supply of entrepreneurship can be powerfully influential is when an entire social class uses its entrepreneurial talent and energy to achieve advancement, power, or wealth. John Kenneth Galbraith makes an argument of this sort in his controversial and frequently misunderstood book The New Industrial State [15]. He posits a group best denoted as the "planning class," who populate and operate the "techno-structure" and/or "planning system" of advanced American industrial society, circa 1967. While the discussion is multi-faceted, Galbraith argues in part that the planning class stimulates the steady expansion of the corporate economy in order to employ and enrich its own members. Galbraith's technocrats did not exist as a sizable class in the late nineteenth century, but his notion of an entrepreneurial class pursuing its interests through the expansion of business firms deserves serious consideration by historians of twentieth century business.

---

[5]Schumpeter's theory of entrepreneurship [33] was a major factor in the formation of the Harvard Research Center in Entrepreneurial History. An excellent example of what I am calling the "supply-oriented" analysis of entrepreneurship which was produced at the Center is Frances Gregory and Irene Neu's 1952 study of the social origins of industrial leaders of the 1870s. See [16]. Although he was associated with the Research Center early in his career, Chandler chose not to contribute to a Schumpeterian or supply-oriented approach in his major treatment of entrepreneurship in The Visible Hand [8]. Instead, he attributes the rise of middle management and bureaucratization in the large firm to the increasing complexities of anticipating, measuring, satisfying, and also stimulating and manipulating, demand. The effect is to exclude the potential autonomous influence of entrepreneurship without evaluating it on its own terms.

Having sketched the outlines of a supply-oriented approach to the rise of large industrial firms and to the merger movement, I will present two propositions, one each concerning capital and entrepreneurship, and illustrate them with examples from the history of McCormick/International Harvester.[6]

Concerning capital, I propose that the intricate interconnections between the business affairs of early manufacturing firms and the destinies of the families owning those firms encouraged a tendency toward expansion of firms, especially through reinvestment of profits. The current value of capital invested in factories and machinery depends almost entirely on the prospects of turning a profit on future production. In a period when most of society's capital was closely held by families, as in the mid- and late-nineteenth century, the family that founded a manufacturing firm was risking its wealth and social standing on the long term success of the enterprise. There was no easy way to retrieve family wealth once it was sunk in a factory.

If the enterprise succeeded, it generated profits that constituted additional family capital searching for its own profit or other return. I would argue that the interconnection between a family's social destiny and the family firm's business success encouraged reinvestment of profits in the manufacturing enterprise. Families knew the risks of their manufacturing business and its industry better than those involved in alternative investment opportunities. Profits earned thus became a supply of capital creating pressure for the growth of the family-held manufacturing firm.

The second proposition, concerning entrepreneurship, turns on the same interconnection between family destiny and the success of the family-owned manufacturing firm. Where the future wealth and social standing of families which intricately linked to the success of their manufacturing firms, as they were in the initial era of American manufacturing, pressure arose to focus all the family's available entrepreneurial talent and energies on expanding the production and size of the firm. As the family's entrepreneurial abilities manifested themselves in profits for the firm, there was an incentive to develop those entrepreneurial abilities further in the direction of expanding the firm's production and selling the increased production as profitably as possible. In addition, as factory-owning families generated offspring with entrepreneurial talent and ambitions, this "supply" of entrepreneurship functioned as an incentive to expand the family manufacturing firm in order to most profitably employ the energies of the younger generations.

The suggestion that capital and entrepreneurship were closely tied up with the private affairs of families at the beginnings of American industrial business is not a surprising revelation of course. Historians of early manufacturing firms routinely discover family social ambitions and

---

[6]I am grateful to the Archives staff at International Harvester headquarters, especially Greg Lennes, for their invaluable and friendly assistance and to the Company for its almost singularly liberal policy on access to records.

private difficulties intervening in their firm's business affairs, especially when major strategic decisions must be made. Often, it is illness, death, marriage, or separation of family members that forces changes in the firm. My supply-side argument is simply that demand-oriented research has neglected the ways in which families used their manufacturing firms to solve what were predominantly <u>family</u> problems of "oversupply," and sometimes undersupply, of capital and entrepreneurial energy and talent. I suggest that, because society's capital and entrepreneurship were mostly family-held at the time industrialization began to take root and develop, the expansion of manufacturing capital and the development of industrial entrepreneurship encouraged the expansion of manufacturing firms, frequently to considerable size.

Eventually, when expansion led to overproduction, and competition cut into profit margins, merger and consolidation became necessary. The great merger movement was an event of unprecedented magnitude from the institutional point of view: within a nine year period from 1895 to 1904, one-third of all manufacturing companies disappeared into larger, consolidated firms [26]. For "supply-side" historians of the merger movement, the question to answer is how one-third too many manufacturing firms came to be competing to expand and prosper in the decades leading up to late 1890's. My assertion is that a large part of the answer must be sought through analysis of factors of supply, especially of capital and entrepreneurship.

I offer illustrations from the history of McCormick/International Harvester as an example of the analytic value of a supply-oriented approach to the turn-of-the-century merger movement. The illustrations suggest that family strategies concerning capital and entrepreneurial talent were a major factor in the consolidation forming the harvester trust, International Harvester. I anticipate that similar supply-oriented analyses will prove appropriate to many, if not a great majority, of the consolidations constituting the turn-of-the-century merger movement. The fortunate families emerged from the merger movement with their manufacturing capital intact and operating or with positions of control in functioning firms. The less fortunate were compelled to sell their manufacturing interests at a loss or see their capital destroyed by competition. They lost their positions of control in firms. If manufacturing capital and entrepreneurship had not been predominantly family-held, a major factor contributing to the excessive expansion of productive capacity in the 1880s and 1890s would not have been present. In large part, the merger movement was a reduction of an economy-wide excess of manufacturing capital and entrepreneurship by means of power struggles within and between firm-owning individuals and families.

Helen Kramer, author of the first detailed analysis of the Harvester consolidation, is hardly unaware of the importance of family issues. She writes, "...it is impossible to explain adequately the McCormicks' behavior without taking into consideration sociological factors such as the family's business traditions of leadership and conservative management" [18, p. 300].

Yet Kramer's primary conclusion, that the purpose of the merger was to eliminate competition among the leading firms so that prices could be raised and profit margins thereby increased, fails to encompass the

reasons why the merging firms came to the unhappy stalemate that made the consolidation necessary [18, p. 300-01]. The reason there was too much competition was because too many families and their firms had invested too much capital and entrepreneurial energy in manufacturing harvesting machinery. What is more, they knew it too well, referring to the 1884-1902 period when overinvestment occurred as the "Harvester War".[7]

George Perkins, acting for J. P. Morgan, eventually resolved the struggle for control between the McCormicks on one side, and the Deerings and their allies on the other, by giving each side 43 percent of the preferred stock and keeping 14 percent in the hands of Morgan. Decision-making power resided with three "voting trustees": Cyrus McCormick, Charles Deering, and Perkins, which meant that Perkins settled all disagreements unilaterally [18, p. 297; 23].

Fred Carstensen has analyzed the details of the consolidation with special attention to Perkins' behavior and motives. He makes a convincing case that Perkins operated largely in his own interest and that of his mentors: J. P. Morgan and Elbert Gary of U.S. Steel, rather than as a disinterested mediator impartially assisting the McCormick and Deering factions in achieving the best structure and management for their new corporation. Carstensen agrees with Kramer about the primacy of the unpleasant effects of competition as a spur to consolidation, concluding that consolidation was "in part a risk-averting strategy" that "would remove the implicit threat to their [the McCormick and Deering family's] wealth that continued strong competition implied" [5, p. 99].

On the issue of family affairs, Carstensen goes considerably beyond Kramer in the direction I am proceeding: "Obviously the central question in the negotiations [concerning the consolidation], the question whose resolution determined the success of the negotiations, was that of family control. Ironically, the solution was to hold the question of control in abeyance until after the merger was completed." [5, p. 99].[8]

My chief finding from a supply-oriented analysis is that the standard history of the International Harvester consolidation, the story of the five leading firms: McCormick, Deering, Plano, Champion (Warder, Bushnell, and

---

[7]Kramer assesses the relevance of profit maximization, organizational behavior analysis, and finance capitalism as explanatory frameworks for discussing the Harvester consolidation. She finds all of them lacking [18, pp. 300-301].

[8]I differ with Carstensen when he calls the solution "ironic." Surely the only way to achieve consolidation in a period when neither the McCormick family nor the Deering family was willing to subordinate itself to the other was to employ a corporate structure that neutralized and deferred the question of who controlled whom. Perkins' three-person "voting trust" accomplished this neatly, so long as both the McCormicks and the Deerings believed that Perkins was acting impartially. Ultimately, Carstensen explains, the McCormicks managed to get their way on the issue of the steel properties, despite their strong belief that Perkins was siding with the Deerings in order to benefit U. S. Steel, Judge Gary, J.P. Morgan, and, thereby, himself.

Glessner) and Milwaukee, overcoming distrust and creating a monopoly controlling 90 percent of manufacturing capacity in the industry, is incomplete. Formation of the harvester trust triggered realignment of the boundaries between the harvesting machine industry and other industries within the general category of agricultural machinery and equipment. Given the capital and entrepreneurial strength of the new corporation, no harvester firm, and no firm in any related industry, could ignore the possibility of being driven out of business if International Harvester chose to expand in their product line.

Materials in the McCormick/International Harvester Archives at International Harvester headquarters in Chicago indicate what happened next [1]. Between 1902 and 1908, forty companies either approached Harvester with proposals to be bought out or were considered by International Harvester for acquisition. By pre-merger movement conventions, these firms operated in seven different industries. The thirty firms discussed in detail in the files are presented by industry in the Table, showing those International Harvester considered on its own initiative, those that approached Harvester with proposals, and the firms that were ultimately acquired. In almost every case, the motivating concern on the part of the small firm was preserving individual or family interests involving capital or managerial position.

For example, in July 1905, J. M. Ross of J. M. Ross, Sons and Co. Limited, St. Catherines, Ontario, wrote to Cyrus McCormick's assistant, C. S. Funk:

> We are taking the liberty to make a proposition to your Company with reference to taking stock in the manufacture of engines and threshing machines... If your Company wishes to go into the engine and thresher business, we think that you should take this matter up fully with us and send us a representative here to examine our works and books in every particular. We might further state that we have made very large profits since we started in business [in 1898]. The reason we would like to amalgamate with you is that your Company is not in the engine and threshing machine business in Canada...and we... think that you should combine in the engine and thresher trade, and you can go in with us easier than with any other firm [32].

In 1904, International Harvester management considered entering the cream separator business. Among the incidents in this process was an offer from the owner of the Sharples Cream Separator Company of West Chester, Pennsylvania, and Chicago to be bought out in exchange for $400,000 in Harvester stock. Sharples indicated that he preferred stock to a cash payment because if he got cash he would have to reinvest it and the new investment might not pay as profitable a return as the separator business [13; 31]. Sharples' unvoiced fear, of course, was that if

Table 1
Acquisitions Proposed and Considered Between 1902 and 1908, by Pre-Merger Movement Industry, and Eventual Strategy Adopted by International Harvester

International Harvester strategy	Pre-Merger Movement Industry						
	Harvesters	Plows	Seed Drills	Threshers	Twine	Cream Sep.	Wagons
Companies that approached International Harvester	Osborne Minneapolis Massey-Harris Aultman-Miller Johnston Adriance-Platt Walter Wood	Keystone Standard Harrow Cockshutt Plow	Empire* Bickford-Hoffman* Superior* Dowagioc* Buckeye* Hoosier* P. P. Mast American Seeding Machine**	Aultman Thresher Northwest Thresher J.M. Ross	Columbian American Grass Twine		
Companies considered on IH's own initiative						Empire Waterloo Sharples	Weber Kemp Olds
Companies acquired by International Harvester	Osborne Minneapolis Aultman-Miller	Keystone			Columbian American Grass Twine		Weber Kemp
Production started by Internatio--' Harvester	International Harvester's original industry	not before 1918	yes, but very small scale	yes, but small scale,	no	yes, but small scale	no

* These six seed drill companies, plus one unnamed company, were known as "The Seven"
** American Seeding Machine was also known as "The Seeder Trust"

Harvester began producing separators in competition with him, his separator investment might become worthless.

The American Seeding Machine Company, the "seeder" or "seed drill" trust, approached International Harvester in 1903 about being bought out. In May 1904, the Harvester officers decided to tender American Seeding a cheap offer and see how it would be received. James A. Carr, first vice president of American Seeding, wrote privately to J. J. Glessner, International Harvester vice president, saying the price offered was too low to win over a majority interest. "A great many of our stockholders are well along in years," Carr explained, and anxious to sell, and could be coerced to sell at the low price by fear of Harvester's competitive power if it began producing seed drills on its own. However, most of the stockholders wished to stay in the seeding machine business, which had made many of them rich men.

> We [meaning Carr and the other American Seeding Machine Company men] are entitled to some consideration. We understand the business and its possibilities; we know its weak and strong points, and we really believe that you [Glessner and the other Harvester officers] are bearing down on us harder than you should do [3].

The Harvester officers decided not to purchase. In 1905, they learned that an internal feud over control had broken out among the American Seeding Machine executives and that its affairs were in very bad condition [4; 12; 14]. International Harvester did begin producing seeding machinery and by 1911 controlled approximately 10 percent of the U. S.-Canadian market. American Seeding Machine eventually became part of the Oliver Farm Equipment Company in the 1920s.

Probably the most significant information in these files is the material concerning negotiations to acquire or merge with the Massey-Harris Company, the largest producer of harvesters in Canada and International Harvester's principal competitor in the world market. Neither E. P. Neufeld, the historian of Massey-Harris/Ferguson's international expansion and affairs [27], nor historians of International Harvester, seem to have known of these negotiations, which were extremely secret. There were two reasons Massey-Harris people approached International Harvester in January 1903, or possibly late in 1902, about being bought out: first, their founder, Walter Massey, had recently died, creating a crisis over internal control, and second, Harvester's construction of a plant at Hamilton, Ontario threatened Massey-Harris with intense competition in the Canadian market [10; 27, pp. 19-21]. Harvester Executive Committee chairman Charles Deering argued that the new Hamilton plant was the principal factor, that it was

> a large menace to the M.-H. Co. and is undoubtedly influencing them to sell to us.... M.H. believe us to be aggressive and we have not only cut into their trade savagely in our regular lines, but are likely to do so

> in small implements. They are justly alarmed, and should be willing to sell cheap [10].

However, Deering went on to conclude that it was not in Harvester's interest to buy Massey-Harris, even very cheaply. If the point of buying were to expand production in Canada, this could be done better by completing and expanding the new Hamilton plant. If Harvester took over Massey-Harris, they would have to retain Massey-Harris managers to run the company. Deering disliked this possibility because he had little confidence in the Massey-Harris officers. Deering felt that since Walter Massey's death they had not been "particularly aggressive" and he suspected they were still operating on Walter Massey's "initiative." "In his [Walter Massey's] day," Deering wrote, "I got the impression, for what it is worth, that the elder brother and President was little more than a figure head and that Mr. Jones was more ambitious politically and socially than in business" [10].

The outcome of the straw vote taken in February 1903 was characteristic of the family-based division pervading decision-making at International Harvester in its early years. Cyrus, Harold, and Stanley McCormick voted to "trade" with Massey-Harris now at a good price. James and Charles Deering, J. J. Glessner, Richard Howe (formerly with the Deering Company and James' and Charles' brother-in-law) and W. H. Jones (formerly with Plano) voted to put off any trading until later, although they were not opposed to purchasing immediately at a good price. The archival materials do not indicate exactly how the negotiations terminated, but it seems most likely that the Massey-Harris people broke them off [19].

Two illustrations from Stanley McCormick's miscellaneous papers file are also of interest with regard to family-held capital and entrepreneurship and the initial five firm consolidation. In October 1901, Harold McCormick had a series of discussions with W. H. Jones of Plano while both were sailing on the ocean liner Deutschland. Jones told McCormick he was willing to enter into a consolidation at that time, or to sell to a consolidated firm, or to sell to the McCormicks. "If his [Jones'] price was paid," Harold wrote in his report on the discussions, "he would be glad to withdraw entirely, or run [his firm] on a commission basis for the new owners." Jones felt

> that demoralization was certain and sure in this business [harvesting machines], and that the present course meant disaster all around, and that while he was compelled to turn in all his earnings to his surplus, he nevertheless thought that this course was compulsatory [sic] and that he had to keep the surplus increasing to keep pace with his competitors, and, therefore, was not able to withdraw his money from this industry, which he claimed was in such a precarious condition.

Jones told McCormick that Deering had offered to buy his company at an unacceptably low price and then had suggested a merger of Deering and

Plano. Jones rejected both propositions because he did not intend to be "the tail to Mr. Deering's kite" [22].

The second illustration is a 25 September 1903 letter from Cyrus McCormick to J. P. Morgan arguing at length why no International Harvester stock in excess of the original $120 million preferred should be issued. Among his numerous reasons, McCormick referred to "the shrinkage of values in speculative stocks" and the problems associated with watered stock in many recent consolidations. While family concerns were not mentioned overtly, it seems reasonable to infer that McCormick was worried about the effects of increasing the stock issue on the McCormick family's capital. The letter is a rich illustration of what Helen Kramer means by the McCormick family's traditions of "conservative management" [20].

To conclude, what does the view from the supply side reveal? The big supply-side issues in the merger movement are the revolution in competition between firms, and the realignment of boundaries dividing industries from each other that the revolution in competition brought about. The typical trust formed in the merger movement consolidated a group of family firms into a single corporate entity controlling a majority of productive capacity in a traditional, "pre-merger movement" industry. When these consolidated firms began to define their competitive strategies, they recognized as their chief potential rivals other consolidated firms in what had been, by pre-merger movement conventions, <u>different</u> industries from their own. As post-merger movement competition developed, it re-organized how industries were defined and where boundaries between industries lay.

The illustrations I have presented from International Harvester's experience during, and immediately following, the merger movement suggest that small and medium-sized family firms, apprehensive about the dangers of competition from the new trusts, may have played a more important role in redefining boundaries between industries than the big new consolidated firms. In the specific case of the harvesting machine industry, the new Harvester trust was far more conservative about expanding its relevant competitive sphere than were smaller firms in related industries that feared the destruction International Harvester might wreak if it entered their "product line." Rather than waiting for the trust to invade, firms invited Harvester to enter their industries, preferably by means of merger or acquisition with the proposing firm.

Finally, let me offer two themes for debate between supply and demand orientations to the rise of "bigness" in industry and to the merger movement and its consequences. The first, following from the above, would discuss whether it was generally the case that forces grounded in matters of supply, especially supply of capital and supply of entrepreneurship, were more influential in the growth of industrial firms and in the merger movement than forces associated with demand factors. Arguments emphasizing "excessive competition" for insufficient buyer's demand, leading to decline in profit margins, a "demand-oriented" explanation, would be expanded to reveal the extent to which issues of supply of capital and entrepreneurship lay at the heart of the excessive competition question.

A second debate should begin over the analytic concept of firm "strategy." "Structure follows strategy" has been the cardinal paradigm for researching the post-merger movement departmentalized or multi-divisional firm. Firms developed strategies along "product lines", according to this analysis. A "strategy" for a product line encompassed production of the constituent products in the line, marketing, and distribution of the products, and research and development of new products within the line. Product lines corresponded to "industries," and competition occurred among firms within an industry. Dangers of competition from firms in other industries were minimal.

But this familiar conceptualization of "strategy" is decidedly demand-oriented. In any situation where industries lack fixed and meaningful boundaries, such as the merger movement period, firm strategy becomes indeterminate. If more profit can potentially be made by invading an industry the firm has never produced in before than by forging new strategies in its traditional industry, then what rules govern the making of strategy? Strategy becomes divorced from considerations relating to the firm and its current activities in this kind of situation and turns instead upon external opportunities and calculations of their risks.

The McCormick/Harvester archival materials suggest that the new International Harvester administration adopted a largely passive stance concerning where the boundaries of their industry lay. As the largest mass of capital and productive capacity in the broad realm of agricultural machinery and equipment, they felt confident in waiting for firms in related product lines to sort matters out. If the Harvester managers had intimations of what was about to happen to agriculture and the agricultural machinery industry over the coming twenty-five years, they did not record their speculations in the surviving memos and letters of 1903-1908. What was coming, of course, was the gasoline-powered tractor and the truck. International Harvester was aggressive in developing neither of these products; they waited while others took the lead and then initiated their own production only when the long-term trends were clear. By 1919 tractors dominated Harvester's corporate production, and by 1930 trucks had moved ahead of the tractors [21, p. 163].

Compared with Pierre DuPont, Alfred Sloan, or Julius Rosenwald, the Harvester managers get low marks as strategists. Demand-oriented research into strategy encourages the ranking of firms and individuals along a continuum running from excellent to poor. A supply-oriented approach to the same issues suggests that in periods when supply factors are more influential than demand factors, strategic planning and decision-making by firm managers may become far less important to the evolution of firms than changes or opportunities compelled by external forces.

Needless to say, we need _both_ demand- and supply-oriented analyses. The Harvester consolidation and the early years of International Harvester history are more amenable to a supply- than to a demand-oriented analysis. Whether the great merger movement was, in its entirety, a supply-dominated event, requires further research. Given the primacy of acquisition and merger as strategies today, more supply-side history of the

turn-of-the-century merger movement will be of considerable relevance to current controversies.

REFERENCES

1. "Acquisitions, Offers, Studies and Proposals 1902-1908," International Harvester Archives, Inventory 199.

2. Jeremy Atack, "Industrial Structure and the Emergence of the Modern Industrial Corporation" Explorations in Economic History, forthcoming, 1985.

3. James A. Carr to J. J. Glessner, 27 May 1904, International Harvester Archives, Inventory 199, Packet 8.

4. James A. Carr to C. H. McCormick, 3 June 1904; International Harvester Archives, Inventory 199, Packet 8.

5. Fred V. Carstensen, "'...a dishonest man is at least prudent': George W. Perkins and the International Harvester Steel Properties," Business and Economic History, Second Series, Vol. 9, (1980), pp. 87-102.

6. Alfred D. Chandler, Jr., "The Beginnings of 'Big Business' in American Industry," Business History Review, Vol. 33, (Spring 1959), pp. 1-31.

7. ________________________, "The Structure of American Industry in the Twentieth Century: A Historical Overview", Business History Review, Vol. 43, (Autumn 1959), pp. 255-98.

8. Alfred D. Chandler, Jr., The Visible Hand: The Managerial Revolution in American Business (Cambridge, MA: Harvard University Press, 1977).

9. Thomas Cochran, Railroad Leaders: 1845-1890, The Business Mind in Action (New York: Russell and Russell, 1965; originally published in 1953 by the Research Center in Entrepreneurial History, Harvard University).

10. Charles Deering, Report of 23 January 1903; International Harvester Archives, Inventory 199, Packet 18.

11. Kenneth Fox, "Uneven Regional Development in the United States," Review of Radical Political Economics, Special Issue on Uneven Regional Development, Vol. 10, (Fall 1978), pp. 68-86.

12. C.S. Funk to C. H. McCormick, 11 June 1904, International Harvester Archives, Inventory 199, Packet 8.

13. C. S. Funk to James Deering, 13 September 1904, International Harvester Archives, Inventory 199, Packet 4.

14. C. S. Funk, memo on American Seeding Machine Company, 24 January 1905, International Harvester Archives, Inventory 199, Packet 8.

15. John Kenneth Galbraith, The New Industrial State, 3rd. ed., revised, (New York: New American Library, 1978; first published in 1967).

16. Frances W. Gregory and Irene D. Neu, "The American Industrial Elite in the 1870's, Their Social Origins", in William Miller, ed., Men in Business, Essays on the Historical Role of the Entrepreneur (New York: Harper and Row, 1962; originally published in 1952), pp. 193-211.

17. Stephen Hymer, "The Multinational Corporation and the Law of Uneven Development," in Jagdish Bhagwati, ed., Economics and World Order (New York: Macmillan for the World Law Fund, 1972) pp. 113-40.

18. Helen M. Kramer, "Harvesters and High Finance: Formation of the Internationald Harvester Company", Business History Review, Vol. 38, (Autumn 1964), pp. 283-301.

19. C. H. McCormick to George Perkins, 28 February 1903, International Harvester Archives, Inventory 199, Packet 18.

20. Cyrus McCormick to J. P. Morgan, 25 September 1903, International Harvester Archives, Inventory 200-A.

21. Cyrus McCormick, III, The Century of the Reaper (Boston: Houghton Mifflin, 1931).

22. Harold McCormick, "Interview with Mr. W.H. Jones on Board Deutschland, October 18-24th? [1901], as Bearing upon Questions of Consolidation," International Harvester Archives, Inventory 200-A.

23. Stanley McCormick, "Analysis of the General Situation, 6 January 1903", International Harvester Archives, Inventory 200-A.

24. John Moody, The Truth about the Trusts (New York: Moody Publishing, 1904).

25. Thomas R. Navin and Marian V. Sears, "The Rise of the Market for Industrial Securities, 1887-1902," Business History Review, Vol. 29, (June 1955), pp. 105-38.

26. Ralph Nelson, Merger Movements in American Industry, 1895-1956 (Princeton, NJ: Princeton University Press for the National Bureau of Economic Research, 1959).

27. E. P. Neufeld, A Global Corporation: A History of the International Development of Massey-Ferguson Limited (Toronto: University of Toronto Press, 1969).

28. Robert Ozanne, A Century of Labor-Management Relations at McCormick and International Harvester (Madison, WI: University of Wisconsin Press, 1967).

29. ____________________, Wages in Practice and Theory, McCormick and International Harvester, 1860-1960 (Madison, WI: University of Wisconsin Press, 1968).

30. Glenn Porter and Harold Livesay, *Merchants and Manufacturers: Studies in the Changing Structure of Nineteenth Century Marketing* (Baltimore, MD: The Johns Hopkins University Press, 1975).

31. A. W. Rockwell, General Manager of Sharples Cream Separator Company, to James Deering, 22 August 1904, International Harvester Archives, Inventory 199, Packet 4.

32. J. M. Ross to C. S. Funk, 19 July 1905, International Harvester Archives, Inventory 199, Packet 27.

33. Joseph Schumpeter, *The Theory of Economic Development* (New York: Oxford University Press, 1961; original English edition, 1934).

GOVERNMENT REGULATION OF BANKING AND INSURANCE