Economic Behavior in Institutional Environments: The Corporate Merger Wave of the 1980s

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Abstract:
Over the last 100 years, the United States has experienced four waves of corporate merger activity. The first occurred at the turn of the century, then again in the 1920s, the 1960s, and the 1980s. Most research on merger waves has focused on individual mergers within a wave. Our research focuses on the wave itself. We develop a theoretical model that centers on the actors who promote the mergers and on those changes in the political and economic environments that provide the resources these actors need to act. Specifically, we argue that a permissive state combined with increased access to capital market funds encourages fringe players to initiate the innovations that enable them to execute mergers. Merger waves occur when these actors become increasingly successful and their innovations are imitated throughout the business community. We provide empirical support for the model using data from the 1980's merger wave.

Article:
Despite the general upward trend in the number of mergers following World War II (Reid 1968; Mueller 1992), over 50 percent of all merger activity in the United States in the last 100 years has taken place during one of four merger waves[1] These four merger waves occurred at the turn of the century, in the 1920s, the 1960s, and the 1980s (see Figure 1), and they have received considerable public and scholarly attention. Most of the research, however, has been limited to analyzing the behavior of individual firms: In what ways do participating firms differ from nonparticipating firms (Davis and Stout 1992; Haunschild 1993)? Was a merger profitable for the firm and its investors (Dewing 1921; Ravenscraft and Scherer 1987)?

We take an entirely different approach. We are interested in the merger wave itself. Our question is: Why, at certain times in our economic history, does the number of mergers increase and then decrease so dramatically? We focus primarily on the actors who promoted the mergers and on the changes in the political and the economic environments that provide the resources these actors needed to act.

PREVIOUS LITERATURE

Most economists start with the assumption that mergers enhance efficiency (Manne 1965; Mandelker 1974; for an exception see Scherer 1988). Efficient market analysis has argued that mergers reduce the divergence between actual market value and the realizable worth of the corporate assets (Jensen 1984). When an outsider acquires a firm run by an "inefficient" management and disciplines, monitors, or replaces management, the acquiring firm is expected to realize a profit when its stock increases to reflect the improved situation.

Contrary to the prediction of efficient market analysis, it is the target firms' stockholders, not the acquiring firms' stockholders, who benefit from higher stock prices (Malatesta 1983; Magenheim and Mueller 1988). In addition, studies have shown that mergers have a negative impact on acquiring firms' profitability (Mueller 1985; Ravenscraft and Scherer 1987). DuBoff and Herman (1989) suggested it is the actors promoting and executing the mergers (i.e., investment bankers, lawyers, and corporate managers) who reap the largest profits (also see Reid 1968).

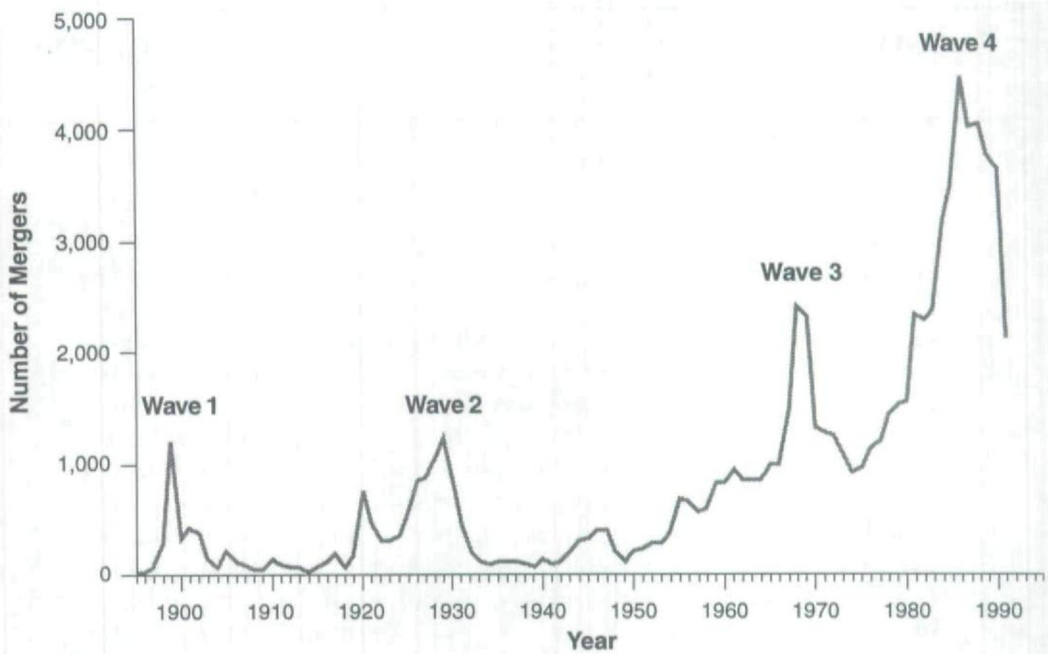

Figure 1. Number of Mergers in the United States, 1895 to 1990

Sources: Thorp 1941:231–34; Nelson 1959; U.S. Department of Commerce 1975; *Mergers and Acquisitions*, May/June 1981, 1991.

While most economic research focuses on the efficiency of individual mergers, several economists have attempted to examine whether the aggregate number of mergers is associated with conditions in the general economy that would make mergers more economically efficient at certain times than others. This research, however, has generally assumed an ahistorical concept of time—temporal contingencies and changes in socio-political contexts are ignored (Isaac and Griffin 1989). The general findings are that the num ber of mergers is positively related to stock prices, Tobin's *q*, and economic activity (measured by GNP or industrial production) (Nelson 1959; Gort 1969; Steiner 1975; Melicher, Ledolter, and D' Antonio 1983; Becketti 1986; Golbe and White 1988).[2]

Recently sociologists and organizational theorists have begun to explore the network and institutional influences on merger activity. Several studies have analyzed the role of financial institutions. For example, in an examination of merger targets in the 1960s, Palmer et al. (1995a) found that firms with commercial and investment bank interlocks were more likely to be acquired in a friendly rather than predatory fashion. However, in a study of Fortune 500 firms, Davis and Stout (1992) found no association between bank interlocks and the risk of takeover bids between 1983 and 1990.

Haunschild (1993) examined the effect of intercorporate networks on merger activity from an institutional perspective. Rather than argue that interlocks are a means of cooptation or influence, she argued that director ties serve as a source of interorganizational imitation. Since directors have many things in common and trust each other, they imitate each other's behavior. Thus, Haunschild found that in the 1980s firms were more likely to engage in acquisitions if one of their top managers sat on the board of another firm that had engaged in an acquisition during the prior three years. Finally, Thornton (1995) examined the influence of global management discourse, governance forms, and local industry context on acquisition activity in the publishing industry between 1958 and 1990. Using event-history analysis she found significant differences across three time periods suggesting that different causal processes were at work in each era.

Our focus is on the wave itself—not the merging firms. We wish to determine why, within a period of four to six years, the number of mergers dramatically increases and then abruptly decreases. Unlike economists who have analyzed the aggregate number of mergers over time, we hold no assumptions about the efficiency of mergers. Furthermore, we emphasize that, when it comes to explaining merger waves, the socio-political setting in which mergers take place is as important as the economic setting.

A MODEL OF MERGER WAVES

Our model is a dynamic one. For heuristic purposes, however, we have divided it into three parts. First, we identify the changes that occur in the economic and political environments that create conditions conducive to a merger wave. Second, we identify those actors who are the most likely to exploit these conditions and to develop new ways of executing mergers. We call these actors *challengers*. Challengers are fringe players; they lack status and have fewer resources than *members*. Members are the top corporations and financial institutions who control, to a considerable degree, the workings of America's institutionalized economic systern. They hold privileged positions in terms of power, status, and resources, and they are generally committed to the status quo.[3] Third, we show that merger waves occur when the success of the challengers leads to their methods being imitated throughout the business community.

Changes in the Economic and Political Environments

Economic and political changes play a crucial role in bringing about merger waves. Economic change has the effect of disrupting current institutional arrangements, and in the process, providing challengers with increased resources and opportunities. Political change, on the other hand, provides all groups with new opportunities, although it is the challengers who are the first to take advantage of these opportunities. For a merger wave to occur, the necessary economic and political changes must occur simultaneously.

The key economic changes are an increase in capital available for investment in the corporate sector and greater access to this capital by new groups. These conditions can result from an increase in aggregate savings or a change in the placement of funds in the capital market. As mergers involve enormous sums of money, a large pool of investment capital is necessary if vast numbers of mergers are to occur. It is equally important that the challengers have access to the new sources of capital. Without such access, the challengers would not have the financial resources needed to implement their innovations.

Still, capital could not be channeled into mergers if the state refused to allow it by strictly enforcing the antitrust laws.[4] Increasingly organizational theorists are recognizing that the state plays an important role in influencing organizational outcomes (Meyer and Rowan 1977; Fligstein 1990; Dobbin 1994). Merger waves have occurred primarily during periods when the Executive and Judicial Branches adopted a strong pro-business ideology and a weak antitrust enforcement policy toward mergers. The 1960s merger wave was an exception. It started when the Johnson Administration took the position that the federal government was powerless to intervene against conglomerate mergers because the antitrust laws as written applied only to horizontal and vertical mergers (Turner 1965; Winslow 1973; Steiner 1975; Stearns and Priest 1995). Consequently, by either legitimating merger behavior or by failing to prevent particular kinds of mergers, the state facilitates them by sending corporate actors the message that they have carte blanche to act in their own interests.[5] By making legal repercussions improbable, the state facilitates mergers by lowering the costs involved in executing them.

Challengers and Innovations

While economic and political changes offer all actors the structural potential to engage in mergers, it is the challengers who make things happen. Who are these challengers? Across and within merger waves, they vary. Some are enterprising financial firms; some are independent entrepreneurs. They are fringe players; individuals or firms located near, but not within, the "inner circle" (Useem 1983).

Challengers act primarily because members have little incentive to do so. First, the status quo serves members well (McAdam 1982); it is they who hold the social and economic power. Second members are protective of their reputation and are constrained by normative expectations. Challengers, on the other hand, denied the social prestige and investment opportunities available to members, are more likely to experiment (Leblebici et al. 1991). For them experimentation is less costly. They have few fears of sanctions, little to lose in terms of reputation, and much to gain if an innovation is successful.

With antitrust enforcement weak or absent, mergers become an attractive and lucrative line of action for challengers. To be successful, the challengers need access to large sums of money. Hence, they devise a way to tap the new sources of capital available in the capital market (e.g., junk bonds).

The notion that innovations are devised by marginal actors is not new to the social sciences (Schumpeter [1926] 1934; Barnett 1953; Merton 1968: Hirsch 1986; Leblebici et al. 1991). And several studies have pointed out the key role such actors have played in past merger waves. Navin and Sears (1955) argued that it was four independent promoters and a small brokerage firm that developed the stock innovation used to finance much of first merger wave; Reid (1968) argued that it was the smaller investment banks that devel oped the marketing techniques used to finance the 1920's merger wave; and Barmash (1971) noted the ethnic marginality of the young entrepreneurs responsible for advancing the conglomerate form and the use of "merger accounting," both of which were pivotal to sustaining the 1960's merger wave (Espeland and Hirsch 1990).

How successful challengers are in promoting mergers depends in part on their organizational and network resources. The most successful challengers will be those with prior business experience and well-developed networks (Granovetter 1992; Palmer et al. 1995b). Both resources are important as they yield crucial knowledge and information and provide challengers with a foundation of clients, support services, and capital sources on which to build (Stinchcombe 1965).

Thus, challengers are those who have the structural opportunity and the individual in centive to change things. Willing to innovate, they successfully use their network and organizational resources to promote mergers.

Interorganizational Imitation

Merger waves occur when the challengers' successful innovations are imitated by the members and the general business population. Some of this imitation reflects organizational learning (Levitt and March 1988). That is, observing the success of the challengers, other organizations adopt their innovations because it makes financial sense for them to do so. But there is mimicking in the institutional sense, too. The challengers' actions and their extreme success create instability in the organizational field. Faced with greater uncertainty and a breakdown in the normative order, firms adopt the challengers' innovations simply because the challengers are successful—not necessarily because they have any concrete evidence that the challengers' methods would be economically efficient for them (DiMaggio and Powell 1983:152). The frenzied nature of merger waves, together with the sizable number of financially unsound mergers occurring within each wave, suggest that along with organizational learning a kind of mimicking also occurs.

Prior to a merger wave, nonmember firms are generally the first to adopt the challengers' innovations. We call these players the *quick learners*. Quick learners typically have fewer organizational resources than the challengers. Through the business press (Rogers 1983) and networks (Granovetter 1983) they learn about the challengers' successes. These players are quick to spot a "good" idea and are willing to take a risk. Because quick learners lack the organizational resources available to challengers and members, few from this group ever become major players. Nevertheless, their participation does increase the total number of mergers in a merger wave.

Members are reluctant at first to imitate challengers. For it is within the established "proper channels" of doing business that the power disparity between members and challengers is the greatest, and maintaining the legitimacy of these "proper channels" affords members the means to limit substantive threats to their interests (McAdam 1982:27). The continuing success of the challengers, however, causes competition to develop between them and the members. Members, in an effort to maintain control over what they see as their domain and to get in on the large profits being made, increase their involvement in merger activity. To distance themselves from the challengers, and thereby deny them legitimation, members at first prefer to execute their mergers using traditional financing methods. Members often can do this because large pools of capital are already available to them and because their prestige has the power to attract new investment funds. Thus, just prior to the merger wave, we find challengers being successful as the result of their innovation, the quick learners in the business community starting to imitate the challengers' innovations, and members increasing their involvement in merger activity.

Within the first or second year, members start to adopt the challengers' methods so as to cash in on the larger profits they offer. When this happens, the innovations diffuse quickly throughout the business community. First, the members' adoption of the challengers' innovations serves to legitimate the innovations. Second, the members' status, the prestige of their clients, and the size of their mergers generate enormous amounts of press coverage. Third, members are more likely to occupy a position of centrality within the network of interlocking directorates (Useem 1983; Mintz and Schwartz 1985). Several studies have shown that these networks play an important role in the diffusion of corporate strategies: Examples include corporate philanthropy (Galaskiewicz and Wasserman 1989); the multidivisional form (Palmer, Jennings, and Zhou 1993); adoption of the "poison pill" (Davis 1991); and corporate acquisitions (Haunschild 1993). The result of this diffusion is to lower the threshold for risk among the remaining actors in field (Kindleberger 1978), and a final group, those we call the *late adopters,* jump on the merger bandwagon.

THE 1984-1989 MERGER WAVE

Economic Setting: Capital Market

In the late 1970s and early 1980s, the increasing internationalization of capital flows, the deregulation of Savings and Loan Associations, and the growth of mutual funds all served to increase and reallocate capital within the capital market, and taken together, these three capital sources financed much of the increase in merger activity. Most importantly, with the help of their innovations, challengers gained access to these sources and thereby effectively competed with members in the merger market.

Internationalization of capital market. Throughout the 1970s, international capital flows increased as petrodollars sought investment outlets and the global economy expanded. Euromarkets,[6] which did not exist in 1956, had approximately $1,540 billion flow through them by 1980. Because the Eurobond market is unregulated (no international authority exists with whom to register), it provides an alternative for borrowers who wish to reach new sources of funds and avoid the regulation and expense of floating a bond in their own domestic market. The Eurobond market grew from $3 billion in 1970 to $24 billion in 1980 (Baughn and Mandich 1983). And, although Eurobonds can be issued in many currencies, in 1980, 68 percent of the total Eurobonds were dollar-denominated. The deutsche mark—denominated eurobond was a distant second at 15 percent.

Deregulation of Savings and Loan Associations. The assets of Savings and Loan Associations (S&Ls) grew at a fantastic rate after World War II. In 1949, assets equaled $21 billion, iri 1965 $138 billion, and in 1979 $249 billion (all 1967 constant dollars). As a result, the proportion of total financial assets in the United States capital market held by S&Ls grew from 4 percent in 1949 to 15 percent in 1979 (Stearns 1986).

Deregulation in the S&L industry began in 1980 when Congress passed the Depository Institutions Deregulation and Monetary Control Act. This act allowed S&Ls to pay higher interest rates to depositors. However, it exacerbated another problem. Many S&Ls were locked into an investment portfolio of 30-year, fixed-rate mortgage loans that were paying lower interest rates than the thrifts were now paying depositors. So, Congress passed the Garn-St Germain Depository Institutions Act (1982). This act allowed S&Ls to make a wider range of investments. Once limited to investing primarily in single-family homes, the act enabled S&Ls to make business loans and to invest in corporate securities.[7] The intent was to allow S&Ls to diversify their portfolios and shore up their net worth.

In 1982, the FDIC lowered the minimum amount of money S&Ls were required to have on deposit to cover their loans and changed the ownership requirements. S&Ls could lend $33 for each $1 of cash capital as compared to $17 before deregulation. In addition, a single, nonresident individual could own an S&L, whereas before deregulation, no individual was allowed to own more than 10 percent of a S&L's stock, no family or group could control more than 25 percent, and 125 of the required 400 stockholders had to reside and do business in the community where the S&L's headquarters was located (Lewis 1990).

Permitting a wide range of investments and lowering the capital requirements resulted in a dramatic increase in the funds S&Ls could make available to the corporate sector. Changing the ownership requirements enabled financial entrepreneurs to capture this source of capital and use it in the new ways allowed by deregulation. Growth of mutual funds. For most of the 1970s, mutual funds barely grew: Open-end mutual funds equaled $46.8 billion in 1970 and $46.0 billion in 1978; money market mutual funds equaled $2.4 billion in 1974 (when they originated) and $10.8 billion in 1978, But, between 1978 and 1983 mutual funds expanded over fivefold to $291.5 billion. A major impetus to this growth came in 1981 when interest rates hit 20 percent.

As the capital market internationalized, S&Ls underwent deregulation, and mutual funds expanded, new sources of capital became available for merger activities. Just as important, these new sources were located where challengers could access them.[8] In 1978, foreign funds, S&Ls, and mutual funds held $103.2 billion (10 percent) of all corporate liabilities. By 1983, the holdings of these three groups increased threefold (to $301.8 billion, or 19 percent). Over the next six years, their holdings continued to increase: In 1989, foreign funds, S&Ls, arid mutual funds held $901.4 billion (29 percent) in corporate liabilities (Board of Governors 1990). As a result, between 1983 and 1989, these three groups provided the corporate sector with an additional $600 billion; a sum greater than the total capitalization of the 50 largest deals every year during the merger wave (1984-1989) or the total capitalization for 50 percent of all mergers occurring during that wave.

Finally, in addition to the new funds available within the capital market, corporations themselves became a source of capital. From the mid- through late 1970s, high inflation rates increased the value of corporate assets. This increase was often not reflected in a corporation's stock prices. Accordingly, many companies were worth more than they cost, and a profit could be made by buying a firm and selling off its assets (Diamond 1985).

Political Setting: The State

> If they ever encountered a merger they didn't like, the free-market academics who dominated antitrust policy during the Reagan Administration didn't let on. (Business Week, June 19, 1989, p. 64)

Throughout most of the 1970s, both the Republican and Democratic Party platforms were in favor of strong antitrust enforcement and were suspicious of the "bigness" associated with merger activity (see Johnson 1978:919, 970). In the 1980 election, the Democratic Party platform continued to include a strong endorsement of antitrust enforcement. The Republican Party platform, however, said only: "An informed consumer making economic choices and decisions in the marketplace is the best regulator of the free enterprise system" (Johnson 1982:193).

Once elected, Republican Ronald Reagan actively promulgated a laissez-faire position. In his first inaugural address he stated, "In this present crisis, government is not the solution to our problem. Government is the problem" (Reagan 1981:187). Throughout his presidency, Reagan was committed to appointing only those people who shared his ideology. Key antitrust enforcement positions were filled by individuals openly sympathetic to the Chicago School view, which argued that high market concentration had few negative consequences and that mergers tended in the vast majority of cases to increase efficiency and seldom reduced competition (Boskin 1987).

Reagan's appointee to Assistant Attorney General, Antitrust Division of the Department of Justice, was William Baxter, a Stanford University law professor with a strong background in Chicago School economics. Under his leadership the Antitrust Division issued new Merger Guidelines in 1982 (the first since 1968). Overall, these guidelines were more lenient toward horizontal and vertical mergers and gave greater discretion to the Department of Justice (Scherer 1989). Kauper (1984) estimated that at least 29 of the Department's prior 94 litigated mergers would not have qualified for challenge under the new Guidelines. In 1984, the Department again revised the Guidelines making them still more lenient. The 1984 guidelines stated that while some mergers may harm competition, more frequently they were either "competitively beneficial or neutral" (Brunner et al. 1985:14).

Reagan's appointee to the Federal Trade Commission (the second arm of the Executive Branch to deal with antitrust activity) was James C. Miller III. Miller set out to reduce the size and the discretionary power of the agency. He advocated industry self-regulation. After his tenure, the FTC had been reduced in size by 30 percent (MacLeod and Rogowsky 1989), and the number of cases it initiated had declined by 20 percent (Shughart 1989). From 1975 to 1980, an average of 9.2 complaints per year were issued by the Commission; from 1981 to 1986 the average number dropped to 7.2 per year (Scherer 1989). This drop in complaints is a particularly strong indicator of the FTC's new position, especially as it occurred when the actual number of manufacturing and mining mergers almost tripled.

In 1982, the U.S. Supreme Court handed down what proved to be a landmark case. In Edgar v. MITE Corp (457 U.S. 624, 1982), the Court declared an Indiana anti-takeover law unconstitutional because it was in violation of the commerce clause of the Williams Act. This decision set the stage for the next few years. "After MITE, state anti-takeover statutes were routinely declared unconstitutional by lower courts" (Fischel 1988:49).

By promulgating a strong laissez-faire ideology, the state signaled to the business community that it intended to limit its role in the economy. By changing how antitrust laws would be enforced, it specifically disturbed the institutional arrangements set up to monitor and limit mergers. In such a normative vacuum innovations are likely to occur.

Challengers and Innovations

The 1980 merger movement had three sets of challengers: (1) a cadre of corporate raiders; (2) the three men who engineered the leveraged buyout—Jerome Kohlberg, George Roberts, and Henry Kravis; and most important, (3) Michael Milken, a key member of Drexel Burnham Lambert, a second-tier investment bank. Each of these groups came with their own institutional resources, and the last two developed their own innovation.

Corporate raiders. In examining the biographies of such famous raiders as T. Boone Pickens, Carl Icahn, Ron Perelman, Sir James Goldsmith, and Saul Steinberg, we found a common theme: Although they came from upper-middle income to wealthy families, they were cultural outsiders in the WASP-ish world of America's business elite. They were the sons or grandsons of successful immigrants and were often Jewish and/or from the South (primarily Texas and Oklahoma oilmen). Although many graduated from elite colleges, such as Princeton, Stanford, and Wharton Business School, none had worked for a Fortune 500 firm. Combining their corporate assets and family fortunes they were able to launch hostile attacks on America's corporate giants in the early 1980s (Slater 1987; Johnston 1986).

It is important, however, to note that the hostile takeover was not an innovation of these corporate raiders. Hostile takeovers dated back to the 1950s, occurred in the 1960's merger wave, and were executed by members throughout the 1970s (Hirsch 1986:818-19). The corporate raiders of the 1980s gained so much public attention primarily because they were outsiders—unknowns willing to take on the giants. In the early 1980s, the challengers' hostile takeover bids, although lucrative (the raider received generous greenmail payments), were generally unsuccessful because the raiders did not have access to the financing needed to complete the deals. Michael Milken's junk bonds would ultimately provide them with the necessary financing.

Kohlberg, Kravis, and Roberts and the leveraged buyout. Like the corporate raiders, Jerome Kohlberg, Henry Kravis and George Roberts were cultural outsiders. All three were Jewish; and Kravis and Roberts were cousins and grew up in the South. Unlike the raiders, however, they brought to mergers their own innovation—the leveraged buyout (LBO).[9]

Kohlberg orchestrated his first LBO in 1965 and is often called the founding father of the LBO (Bartlett 1991). At Bear Stearns (a second-tier investment banking house), Kohlberg, Kravis, and Roberts (KKR) worked on LBOs until Cy Lewis (Bear Stearns' CEO) demanded that the trio stop wasting the company's time. When Kohlberg proposed that the three of them set up a freestanding LBO group within Bear Stearns, Lewis said no. Rather than give up their LBO business, the three set out on their own in 1976 (Bartlett 1991). Shortly after, several independent companies (e.g., Forstmann, Little & Co. and Kelso Co.) followed KKR's lead and started other LBO businesses.

Between 1977 and 1983, LBO activity totaled $11 billion, then exploded to $233 billion between 1984 and 1989. In addition, to the interorganizational imitation (discussed below) and the undervalued stock prices (discussed above), two additional factors contributed to the rapid growth in LBOs. First, firms were able to deduct interest on debt from taxable income; and second, junk bond financing became available (Yago 1991).

Junk bonds fueled LBO activity.[10] Of the money raised for any LBO, about 60 percent, the secured debt, came from loans from commercial banks. Only about 10 percent came from the buyer. For years the remaining 30 percent, the unsecured debt, came from a handful of major insurance companies whose commitments sometimes took months to obtain. When, in the mid- 1980s, Drexel Burnham Lambert began using junk bonds to replace the insurance company funds, the LBO industry was transformed. LBO buyers, once thought too slow to compete in a takeover battle, were able to mount split-second tender offers of their own. Suddenly LBOs were a viable alternative in every takeover situation. Because they held out the promise of maintaining operating autonomy and accumulating vast riches, KKR and other LBO firms were frequently approached by raider-besieged companies. "It was a symbiotic relationship repeated in deal after deal: raider seeks target; target seeks LBO; and raider, target, and LBO firm all profit from the outcomes" (Burrough and Helyar 1990:140-41).

Drexel Burnham Lambert, Michael Milken, and junk bonds. Michael Milken grew up in an upper middle-class Jewish home in the San Fernando Valley north of Los Angeles. He attended Wharton Business School and started in research at Drexel Burnham Lambert (DBL) before asking to be moved to sales and trading. There he focused almost exclusively on the low-rated and un-rated securities that made him famous (Bruck 1988; Stewart 1991).

Prior to Milken, the public junk bond market consisted almost entirely of "fallen angels," or bonds whose initial investment grade ratings were subsequently lowered. The prestigious investment banks (i.e., members) by and large would not handle low- rated and unrated debt: It was too hard to sell, too risky for the firm's reputation, and tended to alienate the mainstream, top-rated issuers (Stewart 1991). Between 1970 and 1976, fallen angels accounted for about 5 percent of U.S. corporations' public longterm debt outstanding. The market changed in 1977 when bonds rated below investment grade from the start were issued in quantity. Lehman Brothers (a member) is credited with having underwritten the first such issue; however, it was DBL that turned issuing below investment grade bonds into a major business, and DBL quickly became the market leader (Taggart 1988).[11]

Although DBL lacked an established position in the high-quality segment of bond underwriting, it was prepared to compete in the newly issued junk bond business. Milken had been tenaciously developing his junk bond trading operation throughout the 1970s. By the early 1980s Milken had practically single-handedly created a junk bond market, which consisted of a network of potential investors (Zey 1993), and DBL's capacity to serve as secondary-market maker if necessary. Issuers saw DBL's investor network as enabling the firm to mobilize large amounts of capital quickly. Thus, junk bonds could be thought of as term loans and substituted for bank loans and private p]acements (Jensen 1986). Investors found junk bonds attractive because they could be resold in a liquid secondary market (Taggart 1988).

Milken created the junk bond market using both legal and illegal means. Investors' willingness to buy junk bonds from DBL on short notice was based not only on their successful past dealings with the firm but on the chance that in the future they, too, might want the favor returned (Bianco 1985). Critics point out that a small number of Milken's large investors appeared to take turns financing one another in takeover raids. Bleakley (1985) reports that during 1984 and 1985, of $3.1 billion in junk bond financing commitments for five takeover attempts (three of which were ultimately successful) $l.2 billion came from just eight investors. Four of the eight (the Belzberg family, Nelson Peltz of Triangle Industries, Saul Steinberg of Reliance Group. and Stephen Wynn of Golden Nugget) were themselves raiders (Taggart 1988). Bruck (1988) argues that this was not simply fortuitous. While it may have happened more naturally with Milken's close associates, ". . . later issuers—for whom Drexel would typically raise more capital than was needed, in a deliberate over funding—would be told that investing in other junk was part of being in the game" (p. 68).12 Milken also used illegally skimmed equity warrants to reward participants for their past business and as an incentive for their future business (Zey 1993:31-38).

In addition, DBL actively sought to protect Milken's junk bond market by manipulating the political environment. Congresspersons were often paid large sums of money to make 15- to 20-minute speeches at DBL's annual Predator's Ball. In addition, Drexel would hold fund-raising dinners for congresspersons and contribute generously to their campaigns (Bruck 1988; Zey 1993). Representative Wirth, Chair of the House Subcommittee on Telecommunications Hearing on Takeovers, received a $2,000 donation from DBL's PAC and over $17,000 directly from individuals within the firm between 1984 and 1985. Senator Alfonse M. D'Amato of New York, Chairman of the Senate Banking Committee's Subcommittee on Securities, received $70,750 from DBL between 1981 and 1986. Furthermore, when in mid-1985, D'Amato was preparing to hold hearings on two proposed bills—one that would curb the use of junk bonds in takeovers and buyouts, and another that would limit junk bond purchases by S&Ls—DBL's Washington lobbyist, Harry Howowitz, hosted a fund-raising dinner for D'Amato at Chasen's in Beverly Hills. The guest list included 23 executives from DEL and a half dozen from Columbia Savings and Loan (a DBL outlet for junk bonds). D' Amato's campaign netted $33,000 from the dinner; neither bill made it through the Senate (Bruck 1988:259-60).

DBL began selling junk bonds to finance leveraged buyouts in 1981. In 1983 the firm conceived of the idea of using junk bond financing commitments in hostile takeovers. These commitments took the form of a "highly confident letter" that represented DBL's promise to sell some amount of junk bonds once a specified fraction of shares was tendered under the terms of the offer. As a result corporate raiders, backed by DBL's letter, could make tender offers for some fraction of a target company's shares. If the tender offer succeeded, the target company's assets could then be used as collateral for any additional loans needed to complete the acquisition. Whether or not the offer succeeded, DBL and its investors received commitment fees ranging from 3/8 percent to 1 percent of the funds committed (Bleakley 1985).

Between 1983 and 1989, nonfinancial corporations issued $160 billion of junk bonds to the public. This sum accounted for more than 35 percent of total public bond offerings. About two-thirds of these issues were associ-ated with restructurings (i.e., leveraged buyouts and acquisitions) (Crabbe, Pickering, and Prowse 1990).

In summary, challengers came from fringe organizations. These organizations, however, served as an important resource—providing the challengers with information, experience, networks, and a legitimate base from which to operate. Encouraged by a permissive state, KKR and DBL created the LBO and the junk bond market, respectively, as ways to aggressively pursue mergers. These innovations enabled the challengers to raise capital by tapping the new sources in the capital market— selling junk bonds to S&Ls, mutual funds, and foreign investors—and cashing in on assets of undervalued corporations.

Interorganizational Imitation
The number of mergers increased dramatically when the challengers' innovations were adopted by members as well as by the general business population. We compiled a data set incorporating the 50 largest mergers (mea-sured in dollar value) in each year from 1982 (two years before the merger wave) through 1989 (the last year of the merger wave). Although the mergers in our data set account for only 1.4 percent of the total number of mergers," they account for 48.5 percent of the total dollars spent. Because the data set covers only the largest

mergers, however, it cannot demonstrate the early successes of the challengers (which were small mergers). We can show that when the challengers started to effectively compete with the members, that is made it into the top 50 deals using their innovations, the members began to adopt their innovation." To demonstrate the early successes of the challengers and their innovations, we rely on supplementary data gathered primarily from the business press. The increased involvement by the quick learners and the late adopters is discussed below.

Early successes. KKR's early successes came slowly and steadily. They completed three LBO deals in 1977, three more in 1979, including the first buyout of a major publicly held company, Houdaille Industries. Then, after a small deal in 1980, KKR completed six deals in 1981 and generated its first spate of press coverage (Burrough and Helyar 1990:138-39). Perhaps the best indicator of KKR's success was the ever larger pools of money it was able to raise from investors. KKR's first fund in 1978 equaled $32 million; its fourth fund in 1984 reached $1 billion (Bartlett 1991:app.).

DBL's early successes were uncommon and astonishing. Between 1978 and 1985 it served as lead manager for 56 percent of the value of all public junk bond issues. DBL's monopoly in the junk bond market resulted in a trajectory of growth for the firm unprecedented on Wall Street. At the end of 1977, DBL's revenues were about $150 million; the firm had approximately $75 million in capital of which less than $40 million was equity. By the end of 1985, the firm's revenues were $2.5 billion; it had about $1 billion of capital of which over 75 percent was equity. It is estimated that its profits were about $600 million pretax and $304.2 million after taxes (Bruck 1988).

Member imitation.

> Imagine ten debutantes sitting in a ballroom. They're the heads of Merrill Lynch, Shearson Lehman, and all the other big brokerages. In walks a hooker. It's Milken. The debutantes wouldn't have anything to do with a woman who sells her body for a hundred dollars a night. But this hooker is different. She makes a million dollars a night. Pretty soon, what have you got? Eleven hookers. (Forstmann, quoted in Burrough and Helyar 1990:239-40)

Figures 2 and 3 give the number of LBOs and junk bond—financed mergers, respectively, completed in 1982 through 1989 among the top 50 mergers.[15] Figure 2 shows the number of LBOs executed by challengers, by members, and by challengers and members jointly. In 1982 and 1983, 6 of the 7 total LBOs were executed by challengers. In 1984, the number of LBOs more than tripled. Thirteen of the top 50 mergers were now LBOs; challengers executed 8 of them, challengers and members jointly 4, and members 1. In 1985 the number of LBOs executed by members alone increased to 3. Between 1986 and 1989 members were responsible for 22 LBOs, joint efforts 19 LBOs, and challengers 1 I LBOs. Hence a pattern of imitation is clear. Prior to the merger wave, challengers executed most of the LBO mergers. At the start of the merger wave members became familiar with the innovation through their joint ventures with challengers, and finally members surpassed challengers in the number of LBOs executed. The increase in joint efforts at the end of the merger wave was partly due to the increased size of the LBOs.[16]

Figure 3 shows the number of mergers within the top 50 each year that utilized junk bond financing executed by challengers, by members, and by challengers and members jointly. In 1982 only 1 of the top 50 mergers was financed with junk bonds and was executed by a challenger. In 1983, 3 of the top 50 mergers involved junk bonds-2 by challengers and 1 by a member. In 1984, this number more than doubled, with challengers executing 4 mergers, challengers and members jointly 2 mergers, and members l. In 1985 the number of mergers using junk bonds doubled again with the number of mergers done by members increasing to 4. Between 1986 and 1989, members executed 22 mergers using junk bonds, challengers executed 17, and joint efforts led to 25 mergers. For junk bond–financed mergers, a pattern of imitation similar to that of LBOs emerges. Prior to the merger wave, challengers executed most of the mergers using junk bonds. At the start of the merger wave, members increased their involvement in junk bond mergers, both alone and in joint efforts with challengers. After 1985, members participated in more junk bond–financed mergers than challengers. As with LBOs, the increased size of the mergers in the latter years accounts in part for the increase in joint efforts.[17]

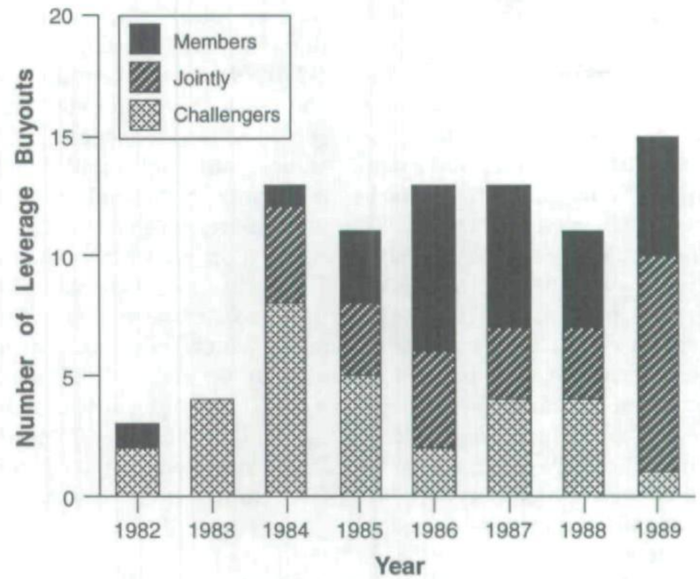

Figure 2. The Number of Leverage Buyouts (LBOs) within the Year's Top 50 Mergers, by Challengers, Members, and Challengers and Members Jointly, 1982 to 1989

Mass imitation. Prior to the merger wave (1970 through 1983) the number of mergers per year averaged l,392. During the merger wave (1984 through 1989) the number of mergers per year averaged 3,832. Table 1 shows the percent change for all mergers and then just LBOs and junk bond–financed restructurings from 1982 through 1990. As expected, the largest increase in the number and dollar amount of all mergers, LBOs, and amount of junk bond financing, occurred in 1984—the start of the merger wave. We found, however, that the number of LBOs and junk bond–financed restructurings increased significantly prior to the wave (i.e., in 1982 and 1983). These increases suggest that both the challengers and the quick learners were increasing their activity in smaller mergers.

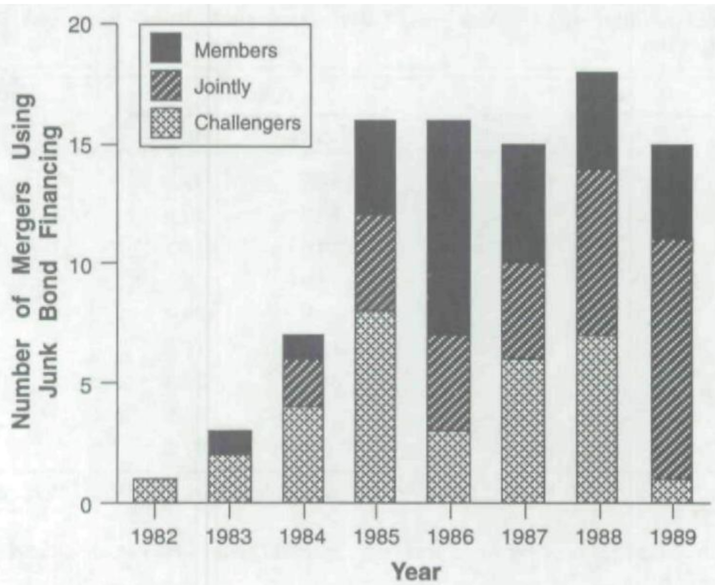

Figure 3. The Number of Mergers Using Junk Bond Financing within the Year's Top 50 Mergers, by Challengers, Members, and Challengers and Members Jointly, 1982 to 1989

How did the challengers' innovations spread to the quick learners? Haunschild (1993) found that firms were exposed to the merger activities of other firms when their managers sat on those firms' boards, and the merger activities of these firms served as models to be imitated. Analyzing data for a sample of firms from 1981 through 1990, she found that a firm was more likely to engage in a merger if one of its top managers sat on the board of another firm that had engaged in a merger during the prior three years.

In addition, the mass media played a crucial role in the diffusion of the challengers' innovations (Rogers 1983). Quick learners could learn about LBOs and junk bond financing through the business press. Checking the Business Periodicals Index for 1980, we found no listings for LBOs and junk bonds. But, by 1983, there were 61 articles on LBOs and 7 articles on junk bonds. Once members increased their merger activity and began adopting the challengers' innovations, media coverage increased sharply. Within the top 50 mergers, members went from having no involvement in LBOs in 1983 to being involved in 5 LBOs in 1984 and 6 LBOs in 1985; as for junk bonds, members participated in only 1 junk bond—financed merger in 1983, but 3 in 1984 and 8 in 1985. At the same time, the number of articles on LBOs climbed to 86 in 1984, and 93 in 1985; and the number of articles on junk bonds climbed to 10 in 1984 and 36 in 1985.

Table 1 shows that in 1986, following the members' adoption of the challengers innovation, a significant jump occurred in the number of mergers, LBOs, and amount of junk bond financing. We believe this increase reflects the increased activity of members and challengers, plus the entrance of the late adopters. The late adopters were those players who were either more risk-averse to mergers or who were previously unfamiliar with the challengers' innovations. They learned of the members' adoption of the challengers' innovations through increased press coverage or interlocking directorates. As a result of the members' behavior, late adopters perceived the innovation as legitimate and viewed mergers as an attractive business strategy.

At this point in the merger wave, mergers became increasingly speculative and financially risky. Kaplan and Stein (1992), examining 124 large LBOs between 1980 and 1989, found that starting in 1986 mergers were more likely to be overpriced, poorly structured, or both. As Schumpeter ([1926] 1934) argues, imitation increases competition. Greater participation in mergers created a situation where the demand for target firms outstripped the supply. Buyers, backed by readily available financing and anxious to complete their deals, often paid more for firms than they were worth.

Table 1. Percent Change in All Mergers, LBOs, and Junk Bond–Financed Restructurings, 1982 to 1990

	Mergers [a]		LBOs [a]		Junk Bonds [a,b]
Year	Number	Amount	Number	Amount	Amount
1982	−1.3	−12.7	64.0	−33.0	64.0
1983	4.2	−13.2	40.9	30.9	150.0
1984	32.6	139.3	10.0	314.2	300.0
1985	9.9	15.9	.0	5.1	67.0
1986	28.1	41.1	32.9	129.9	180.0
1987[c]	−9.7	−13.5	−17.7	−19.9	−14.0
1988	.3	33.8	36.6	29.7	−.4
1989	−7.0	2.9	.3	39.9	−13.0 [d]
1990	−2.7	−34.6	−40.0	−77.3	— [d]

Sources: Crabbe et al. 1990, table 6:595; *Mergers & Acquisitions*, May/June, 1991, pp. 36, 52; Yago 1991, table 4-2:37.

[a] Numbers reflect changes over previous year (e.g., percent change between absolute number of mergers in 1981 and in 1982).

[b] Restructuring issues include those associated with leveraged buyouts, mergers and acquisitions, divestitures, stock repurchases, leverage recapitalizations, and any other restructuring activities.

[c] Declines coincide with stock market crash of October 1987.

[d] Junk bond market collapsed in October 1989, following Milken's indictment on 98 counts of racketeering and securities fraud in March 1989.

THE END OF THE MERGER WAVE

Just as changes in the state and the capital market provided the structural potential for challengers to be successful and for mergers to occur, changes in these institutional settings were instrumental in bringing the merger wave to an end. Furthermore, while the success of the challengers' innovations served to launch the merger wave, the collapse of their most important innovation— the junk bond—caused it to abruptly stop.

After a decade of the rich getting richer and the majority of Americans seeing a decline in their standard of living, public opinion polls showed a rising resentment against Wall Street (Business Week, February 6, 1989, pp. 30-31). Fueling these feelings was a tide of articles, books, and movies showing Wall Street's role in (and profits from) in sider-trading scandals and hostile takeovers. Wall Street became synonymous with greed.
In response to public sentiment and in an effort to pre-empt the more populist members of Congress from accomplishing their own agendas,[18] Bush, upon taking office, moved to clean up the excesses tolerated by Reagan's permissive regulators. He appointed James Rill to head the Justice Department Antitrust Division. Rill, a veteran Washington lawyer, was seen as bringing "a more pro-enforcement view to the job" and not sharing "the Chicago School's almost messianic devotion to free-market theories" (Business Week, June 19, 1989:64-70). Furthermore, Treasury Secretary Nicholas F. Brady told the Senate Finance Committee on January 24, 1989 that he was considering legislation to rein in debt-financed takeovers and leveraged buyouts.[19]

The Bush Administration's and Congress's new posturing put the business community on notice that it no longer had carte blanche. Starting in 1987, Congress banned "mirror imaging," a technique used to escape post-acquisition taxes. In 1989, Congress limited the deduction of interest on leveraged acquisitions that were financed with junk bonds. In 1990, Congress curbed the tax advantages found in "creatively" financed divestitures. Congress also enhanced the regulatory and enforcement powers of the Federal Deposit Insurance Association and prohibited state chartered S&Ls from investing in junk bonds. (Mergers & Acquisitions, March/April 1988, March/April 1989, January/February 1991).

Furthermore, management and labor, who were unsuccessful during the mid-1980s in securing federal protection from raiders, started pleading their case in the state legislatures where they had more political clout. State initiatives to legislate merger activity proved successful when the now more conservative Supreme Court, favorable to states rights, granted the states greater antitrust authority (Useem 1993). In 1987, the Court upheld a new Indiana anti-takeover law; in 1989, the Court refused to consider a challenge to Wisconsin's Freeze Out Law; and in 1990, the Court ruled (California v. ARC American Corporation) that Federal antitrust law was not intended to pre-empt state law except in the cases where a direct conflict exists (Mergers & Acquisitions, January/February 1990). Following the 1987 Indiana ruling, the number of state anti-takeover laws increased dramatically. In 1984, only 8 states had any kind of anti-takeover legislation. By early 1990, 40 states had adopted at least one anti-takeover law, and 31 of them had more than one statute on the books (Mergers & Acquisitions, September/October 1991). These laws increased the cost and time required to complete a hostile takeover.

At the same time state laws were increasing the costs of doing mergers, changes were occurring in the capital market that made it more difficult to find the large sums of money needed to execute them. Unnerved by the October 1987 stock market crash, investors' confidence barely had returned before the S&L scandal started making front- page news and some of the bigger mergers of the 1980s began to unravel. In 1990, Canada's Campeau Corporation was forced into bankruptcy under the crushing debt load assumed in the leveraged acquisition of Federated Department Stores. Bankruptcy also overtook the Jim Walter Corporation, the building materials firm taken private by KKR. With a number of other highly leveraged mergers in trouble, a recession coming, and interest rates rising, investors started to shy away from merger related securities.

The crash of the junk bond market and the elimination of Milken and DBL were the nails in the coffin of the 1980's merger wave. In March 1989, Milken was indicted on 98 counts of racketeering and securities fraud (Zey 1993).[20] In October 1989 the junk bond market crashed. Although several member firms had by this time created their own junk bond departments, without Milken they could not keep the market from crashing. Drexel controlled 38.6 percent of the market in 1989 (Business Week, February 26, 1990, p. 40). Lacking both a bullish market and Milken's distribution networks, the demand side of the junk market evaporated.

When the junk bond market crashed so did DBL's empire. The resulting sharp decrease in the liquidity of its primary assets (junk bonds, privately placed debt, and equity investments) prompted Standard & Poor's to lower the rating on DBL's commercial paper. This, in turn, made it more difficult and expensive for DBL to continue to refinance its enormous short-term debt (Zey 1993). On February 13, 1990, DBL filed for bankruptcy.

CONCLUSION

Over the last decade the field of economic sociology has been revitalized (Granovetter 1985, 1992; Smelser and Swedberg 1994). Granovetter (1992) states that the emphasis of the "new" economic sociology is on "how economic activity comes to be coordinated by groups of people rather than carried out by isolated individuals" (p. 3). He argues that although the proper analysis of much of this work involves a high level of contingency, these contingencies can be taken into account in a systematic theoretical argument.

In the beginning of this paper we developed a model for understanding U.S. merger waves. Our model is eclectic; we draw from the work of economists, economic sociologists, as well as sociological theories of institutionalization and social movements. We argue that a merger wave is a collective phenomenon; besides economic considerations (e.g., stock prices and tax incentives) there are social and political determinants of merger waves. Using data from the 1980s, we have shown that it is not simply the availability of capital that drives merger waves, but the location of that capital within the institutional structure of the capital market. With access to new sources of capital, fringe players effectively competed in the merger market. Second, we have demonstrated that the state is an important actor. The Executive branch's enforcement policies and the Judicial branch's interpretations of antitrust laws influenced the kinds and numbers of mergers that take place. Third, we have shown that the structural position of actors within a market makes a difference. Fringe players were not only more likely to have the motivation, but the normative space to innovate and find new ways to organize mergers. Fourth, we have shown that the junk bond market was more than a set of autonomous actors with corresponding supply and demand needs. It was in large part socially constructed by Milken through networks and a series of legal and illegal exchanges. Fifth, we have shown that the number of mergers sharply increased when the challengers' innovations were imitated by members and the general business population.

Stearns' ongoing research examining the other three merger waves (at the turn of century, in the 1920s, and in the 1960s) provides strong support for this model. While many specific characteristics of mergers (e.g., the type of merger, the financial instruments used, etc.) vary across merger waves, each wave has been preceded by the state providing the merger promoters the legal freedom to execute mergers. In addition, each wave has been preceded by changes in the capital market that grant challengers access to new sources of capital. Furthermore, although who the challengers are and what the innovations are vary across merger waves—in every wave the challengers are fringe players; in every wave an innovation plays a key role in increasing the number of mergers; and in every wave the innovation is introduced by a challenger.21 Hence, although differences exists across merger waves, it is still possible, as Granovetter (1992) suggests, to develop a general set of principles to explain them.

ANOTHER WAVE?

Recently merger activity has been on the rise. In 1994, the number of mergers increased dramatically, matching levels reached during the 1980s merger wave.

Merger activity in the first half of 1995 totaled $164.4 billion, the biggest first half on record (Wall Street Journal, August 1, 1995). Are we witnessing the start of a new merger wave? Only time and the numbers will tell. Given historical precedent, 4 years is an unusually short time between merger waves (20 years between the first and second merger waves, 35 years between the second and third, and 15 years between the third and fourth). However, there are no temporal constraints in our model about when a merger wave can take place. Therefore, we must ask whether changes encouraging mergers have occurred in the political and economic environments. For example, although President Clinton has not promoted a laissez-faire ideology, it appears his administration has adopted a weak antitrust enforcement policy (e.g., not one major merger failed due to regulatory problems in 1994 compared to 11 major mergers failing for these reasons in 1991 under the Bush Administration). We must also identify the challengers and their innovations.

Another possible reason for the high number of mergers in 1994 is the general upward trend in mergers. Since the end of World War 11, along with the 1960's and 1980's merger waves, there has been overall a steady increase in the number of mergers (see Figure 1). This upward trend can be explained by several factors. One is the increase in the number of firms in the economy; in 1950 there were 629,000 corporations, and in 1990 there were 3,717,000 corporations. Another is the development of a global economy; increasingly, more foreign firms are acquiring American companies (Blair 1995).

Finally, Stearns (1995) suggests that the general upward trend in mergers represents the institutionalization of the merger market. Over the last 30 years, four separate but complementary processes have contributed to this process. First, with the increase in global competition and the perceived lack of technological or geographical opportunities, companies increasingly equate growth with mergers rather than with market expansion (Mergers & Acquisitions, January/February 1995). Second, the widespread adoption of the financial conception of the firm has led executives (Fligstein 1990) and investors (Useem 1993) to view the corporation prima rily as a bundle of assets. Divisions and subsidiaries, or the firm itself, are bought and sold based solely on their financial contribution to the firm's shareholders. Third, the expansion in merger financing technologies (including manipulating accounting procedures and tax laws) has enabled firms to engage in more mergers by offering them more financing options (Espeland and Hirsch 1990). Finally, the large increase in organizations and professionals involved in merger activities over the last three decades (e.g., M&A departments within corporations, investment banks, and law firms, and information services dealing exclusively with mergers, etc.) has helped to construct the organizational structures needed to facilitate more mergers and a culture in which mergers are perceived as a normal, everyday business strategy (DiMaggio 1991).

It is conceivable that the institutionalization of the merger market will eliminate future merger waves. We do not believe this is likely, however, as the abrupt increases and decreases that characterize merger waves are the result of political and economic changes as well as differences in social and economic power. Because change and power differentials are constant features of our society, another merger wave is always possible.

REFERENCES:

Baker, Wayne E. 1990. "Market Networks and Corporate Behavior." *American Journal of Sociology* 96:589-625.

Barmash, Isadore. 1971. *Welcome to Our Conglomerate-Your Fired*. New York: Grosset & Dunlap.

Barnett, H. G. 1953. *Innovation-the Basis of Cultural Change*. New York: McCraw-Hill.

Bartlett, Sarah. 1991. *The Money Machine: How KKR Manufactured Power and Profits*. New York: Warner Books.

Baughn. William H. and Donald R. Mandich. 1983. *The International Banking Handbook*. Homewood, IL: Dow Jones Irwin.

Becketti, Sean. 1986. "Corporate Mergers and the Business Cycle." *Economic Review* 71:13-26.

Bianco, Anthony. 1985. "How Drexel's Wunder- kind Bankrolls the Raiders." *Business Week,* March 4, pp. 90-91.

Blair, Margaret M. 1995. *Ownership and Control: Rethinking Corporate Governance for the Twenty-first Century*, Washington, DC: Brookings Institute.

Bleakley, Fred. R. 1985. "The Power and the Perils of Junk Bonds." *New York Times,* April 14, Section 3, pp. Fl and F8.

Board of Governors of the Federal Reserve System. 1990. *Flow of Funds Accounts, Financial Assets and Liabilities Year-End*, 1966-1989. Washington, DC: Federal Reserve System.

Boskin, Michael .1. 1987. *Reagan and the Economy: The Successes, Failures, and Unfinished Agenda*. San Francisco: ICS Press.

Bruck, Connie. 1988. *The Predators' Ball: the Junk Bond Raiders and the Man Who Staked Them*. New York: Simon and Schuster.
1989. "The Old Boys and the New Boys." *New Yorker*, May 8, pp. 81-96.
Brunner, Thomas W., Thomas G. Krattenmaker, Robert A. Skitol, and Ann Adams Webster. 1985. *Mergers in the New Antitrust Era*. Washington, DC: The Bureau of National Affairs.
Burrough, Bryan and John Helyar. 1990. *Barbarians at the Gate: the Fall of RJR Nabisco*. New York: Harper and Row.
CDE Handbook. 1980, *Banking and Finance: Hidden Cost*. New York: Corporate Data Exchange, Inc.
Crabbe, Leland E., Margaret H. Pickering, and Stephen D. Prowse. 1990. "Recent Developments in Corporate Finance." *Federal Reserve Bulletin August*: 593-603.
Davis, Gerald F. 1991. "Agents without Principles? The Spread of the Poison Pill through the Intercorporate Network." *Administrative Science Quarterly* 36:583-613.
Davis, Gerald F. and Susan K. Stout. 1992. "Organization Theory and the Market for Corporate Control: A Dynamic Analysis of the Characteristics of Large Takeover Targets, 19801990." *Administrative Science Quarterly* 37: 605-33.
Dewing, Arthur S. 1921. "A Statistical Test of the Success of Consolidations." *Quarterly Journal of Economics* 36:84-101.
Diamond. Stephen C. 1985. *Leveraged Buyouts*. Homewood, IL: Dow Jones-Irwin.
DiMaggio, Paul J. 199L "Constructing an Organizational Field as a Professional Project: U.S. Art Museums, 1920-1940." Pp. 267-92 in *The New Institutionalism in Organizational Analysis*, edited by W. W. Powell and P. J. Di- Maggio. Chicago, IL: University of Chicago Press.
DiMaggio, Paul J. and Walter W. Powell. 1983. "The Iron Age Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields." *American Sociological Review* 48:147-60.
Dobbin, Frank. 1994. *Forging Industrial Policy*. Cambridge, England: Cambridge University Press.
DuBoff, Richard B. and Edward S. Herman. 1989. "The Promotional-Financial Dynamic of Merger Movements: A Historical Perspective." *Journal of Economic Issues* 23:107-33.
Espeland, Wendy Nelson and Paul M. Hirsch. 1990, "Ownership Changes, Accounting Practice and the Redefinition of the Corporation." *Accounting, Organizations and Society* 15:7796.
Fischel, Daniel R. 1988. "From MITE to CTS: State Anti-Takeover Statutes, The Williams Act, the Commerce Clause, and Insider Trading." Pp. 47-96 in 1987: *The Supreme Court Review*, edited by P. B. Kurland, G. Casper, and D. J. Hutchinson. Chicago, IL: University of Chicago Press.
Fligstein, Neil. 1990. The Transformation of Corporate Control. Cambridge, MA: Harvard University Press.
Galaskiewicz, Joseph and Stanley Wasserman. 1989. "Mimetic and Normative Processes within an Interorganizational Field: An Empirical Test." *Administrative Science Quarterly* 34:454-79.
Gamson, William A. 1975. *The Strategy of Social Protest*. Homewood, IL: Dorsey.
Golbe, Devra L. and Lawrence J. White. 1988. "A Time-Series Analysis of Mergers and Acquisitions in the U.S. Economy." Pp. 265-302 in *Corporate Takeovers: Causes and Consequences*, edited by A. J. Auerbach. Chicago, IL: University of Chicago Press.
Gort, Michael. 1969. "An Economic Disturbance Theory of Mergers." *Quarterly Journal of Economics* 83:624-42.
Granovetter, Mark, 1983. "The Strength of Weak Ties: A Network Theory Revisited." *Sociological Theory* 1:201-33.
———. 1985. "Economic Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology* 91:481-510.
———. 1992. "Economic Institutions as Social Constructions: A Framework for Analysis." *Acta Sociologica* 35:3-11.
Haunschild, Pam. 1993. "Interorganizational Imitation: The Impact of Interlocks on Corporate Acquisition." *Administrative Science Quarterly* 38:564-92.
Hirsch, Paul M. 1986. "From Ambushes to Golden Parachutes: Corporate Takeovers as an Instance of Cultural Framing and Institutional Integration." *American Journal of Sociology* 91:800-37.
Isaac, Larry W. and Larry J. Griffin. 1989. "Ahistoricism in Time-Series Analyses of Historical Process." *American Sociological Review* 54:873-90.

Jensen, Michael C. 1984. "Takeovers: Folklore and Science." *Harvard Business Review* 62: 109-21.
———. 1986. "The Takeover Controversy: Analysis and Evidence." *Midland Corporate Finance Journal* 4:6-32.
Johnson, Donald Bruce. 1978. *National Party Platforms: 1840-1976.* Urbana, IL: University of Illinois Press.
———. 1982. *National Party Platforms of 1980: Supplement to National Party Platforms, 1840-1976.* Urbana, 1L: Universíty of 1llinois Press.
Johnston, Moira. 1986. *Takeover: the New Wall Street Warriors.* New York: Belvedere.
Kaplan, Steven N. and Jeremy C. Stein. 1992. "The Evolution of Buyout Pricing and Financial Structure." Paper presented at Program for Economy, Justice and Society Conference, April, San Francisco, CA.
Kauper, Thomas E. 1984. "The 1982 Horizontal Merger Guidelines: Of Collusion, Efficiency, and Failure." Pp. 171-98 in *Antitrust Policy in Transition: The Convergence of Law and Economics*, edited by E. M. Fox and J. T. Halverson. Chicago. IL: American Bar Association.
Kindleberger, Charles P. 1978. *Manias, Panics, and Crashes: A History of Financial Crises*. New York: Basic Books.
Leblebici, Huseyin, Gerald R. Salancik, Anne Copay, and Tom King. 1991. "Institutional Change and the Transformation of Interorganizational Fields: An Organizational History of the U.S. Radio Broadcasting Industry." *Administrative Science Quarterly* 36:333-63.
Levitt, Barbara and James G. March. 1988. "Organizational Learning." *Annual Review of Sociology* 14:319-40.
Lewis, Jimmy R. 1990. *Mortgaging the Thrift Industry: A History of Savings and Loans.* Sacramento, CA: Assembly Office of Research.
MacLeod, William C. and Robert A. Rogowsky. 1989. "Consumer Protection at the FTC During the Reagan Administration." Pp. 71-88 in *Regulation and the Reagan Era: Bureaucracy and the Public Interest,* edited by R. E. Meiners and B. Yandle, New York: Holmes and Meier.
Magenheim, Ellen B. and Dennis Mueller. 1988. "Are Acquiring-Firm Shareholders Better Off After an Acquisition?" Pp. 171-93 in *Knights, Raiders, and Targets: the Impact of the Hostile Takeover,* edited by J. C. Coffee, Jr., L. Lowenstein, and S. Rose-Ackerman. New York: Oxford University Press.
Malatesta, Paul H. 1983. "The Wealth Effect of Merger Activity and the Objective Functions of Merging Fírms." *Journal of Financial Economics* 11:155-81.
Mandelker, Gershon. 1974. "Risk and Return: The Case of Merging Firms." *Journal of Financial Economics* 1:303-35.
Manne, Henry G. 1965. "Mergers and the Market for Corporate Control." *Journal of Political Economy* 73:110-20.
McAdam. Doug. 1982. *Political Process and the Development of Black Insurgency 1930- 1970,* Chicago, IL: University of Chicago Press.
Melicher, Ronald W., Johannes Ledolter, and Louis J. D'Antonio. 1983. "A Time Series Analysis of Aggregate Merger Activity." *Review of Economics and Statistics* 65:423-30.
Merton, Robert K. 1968. *Social Theory and Social Structure*. New York: Free Press.
Meyer, John W. and Brian Rowan. 1977. "Institutionalized Organizations: Formal Structure as Myth and Ceremony." *American Journal of Sociology* 83:340-63.
Mintz, Beth and Michael Schwartz. 1985. *The Power Structure of American Business.* Chicago, IL: University of Chicago Press.
Mueller, Dennis C. 1985. "Mergers and Market Share." *Review of Economics and Statistics* 67:259-67.
———. 1992. "Mergers." Pp. 700-707 in *The New Palgrave Dictionary of Money and Finance,* vol. 2, edited by P. Newman, M. Mil- gate, and J. Eatwell. New York: Macmillan.
Navin, Thomas R. and Marian V. Sears. 1955. "The Rise of a Market for Industrial Securities, 1887-1902." *The Business History Review* 29:105-38.
Nelson. Ralph L. 1959. *Merger Movements in American Industry: 1895-1956.* Princeton, NJ: Princeton University Press.
Palmer, Donald A., Brad Barber, Xueguang Zhou, and Yasemin Soysal. 1995a. "The Friendly and Predatory Acquisition of Large U.S. Corporations in the 1960s: The Other Contested Terrain." *American Sociological Review* 60:469-99.

———. 1995b. "Innovation in the Market for Corporate Control: Acquisition Strategies in Large U.S. Corporation in the 1960s." Paper presented at the annual meeting of the American Sociological Association, August, Washington, DC.
Palmer, Donald, P. Devereaux Jennings, and Xueguong Zhou. 1993. "Late Adoption of the Multidivisional Form by Large U.S. Corporations: Institutional, Political, and Economic Accounts." *Administrative Science Quarterly* 38:100-131.
Ravenscraft, David J. and F. M. Scherer. 1987. *Mergers, Sell-offs, and Economic Efficiency*. Washington: Brookings Institution.
Reagan, Ronald. 1981 "President Reagan's Inaugural Address." *Congressional Quarterly Weekly Report*, January 24, pp. 186-88.
Reid, Samuel Richardson. 1968. *Mergers, Managers, and the Economy*. New York: McGraw- Hill Book Company.
Rogers, Everett M. 1983. *Diffusion of Innovations*. New York: Free Press.
Scherer, F. M. 1988. "Corporate Takeovers: The Efficiency Arguments." *Journal of Economic Perspectives* 2:69-82.
———. 1989. "Merger Policy in the 1970's and 1980's." Pp. 83-102 in *Economics and Antitrust Policy*, edited by R. J. Lamer and J. W. Meehan, Jr. New York: Quorum Books.
Schumpeter, Joseph. [1926] 1934. *The Theory of Economic Development*. 2d ed. Translated by R. Opie. Cambridge, MA: Harvard University Press.
Shughart, William F.. II, 1989. "Antitrust Policy in the Reagan Administration: Pyrrhic Victories?" Pp. 89-103 in *Regulation and the Reagan Era: Politics, Bureaucracy and the Public Interest*, edited by R. E. Meiners and B. Yandle. New York: Holmes and Meier.
Slater, Robert. 1987. *The Titans of Takeover*. Englewood Cliffs, NJ: Prentice-Hall.
Smelser, Neil .1. and Richard Swedberg. 1994. "The Sociological Perspective of the Economy." Pp. 3-26 in *the Handbook of Economic Sociology*, edited by N. J. Smelser and R. Swedberg. Princeton, NJ: Princeton University Press.
Stearns, Linda Brewster. 1986. "Capital Market Effects on External Control of Corporations." *Theory and Society* 15:47-75.
———. 1995. "How Markets Get Made: The institutionalization of the U.S. Merger Market," Paper presented at the annual meeting of the American Sociological Association, August, Washington, DC.
Stearns, Linda Brewster and Ronda Priest, 1995. "Political Ideologies, Antitrust Enforcement and Merger Waves." Paper presented at annual meeting of the Society for the Advancement of Socio-Economics, April, Washington, DC.
Steiner, Peter 0.1975. *Mergers: Motives, Effects, Policies*. Ann Arbor, MI: University of Michigan Press.
Stewart, James B. 1991. *The Den of Thieves*. New York: Simon and Schuster.
Stinchcombe, Arthur. 1965. "Social Structure and Organizations." Pp. 142-93 in *Handbook of Organizations*, edited by J. G. March. Chicago, IL: Rand-McNally.
Taggart. Robert A., Jr. 1988. "The Growth of the 'Junk' Bond Market and Its Role in Financing Takeovers." Pp. 5-24 in *Mergers & Acquisitions*, edited by A. J. Auerbach. Chicago, IL: University of Chicago Press.
Thornton, Patricia H. 1995. "Does History Repeat Itself? The Influence of Global Management Discourse and Local Industry Context on Acquisition Activity." Paper presented at the annual meeting of the American Sociological Association, August, Washington, DC.
Thorp, Willard L. 1941. "The Merger Movement." Pp. 231-24 in *The Structure of Industry*, Monograph No. 2T, Part 3. Temporary National Economic Committee. 76th Cong. Washington, DC: U.S. Government Printing Office.
Turner, Donald. 1965. "Conglomerate Mergers and Section T of the Clayton Act." *Harvard Law Review* 78:1313-95,
U.S. Department of Commerce. 1975. *Historical Statistics of the United States: Colonial Times to 1970.* Washington, DC: U.S. Department of Commerce.
U.S. House. 1989. House Committee on Banking, Finance, and Urban Affairs. *Issues Concerning Investing in High-Yield Bonds by FSLIC Insured Depository Institutions*. 101st Cong., 1st sess. Pamphlet.

Useem, Michael. 1983. *The Inner Circle: Large Corporations and Business Politics in the U.S. and U.K*. New York: Oxford University Press.
———. 1993. *Executive Defense: Shareholder Power and Corporate Reorganization*. Cambridge, MA: Harvard Press.
Winslow. John F. 1973. *Conglomerates Unlimited: The Failure of Regulation*. Bloomington, IN: Indiana University Press.
Yago, Glenn. 1991. *Junk Bonds: How High Yield Securities Restructured Corporate America*. New York: Oxford University Press.
Zey, Mary. 1993. *Banking on Fraud: Drexel, Junk Bonds, and Buyouts*. Hawthorne, NY: Aldine de Gruyter.

Notes:

1. The term merger as used in this paper includes mergers (i.e.. the combination of two or more enterprises) and acquisitions (i.e., the purchase of one firm by another).
2. Also several studies have examined the effect of interest rates on the number of mergers. The results were mixed. For example, Steiner (19T5) found a positive association, while Becketti (1986) found a negative association. One explanation might he the difference in the years sampled; another might be the latter study used real (i.e., controlled for inflation) interest rates while the former did not.
3. Our distinction between challengers and members is borrowed from Gamson (1975).
4. The Sherman Antitrust Act of 1890 was the law of the land prior to the first merger wave; the Federal Trade Commission Act of 1914 and the Clayton Act of 1914 prior to the second merger wave; and the Celler Kefauver Act of 1950 prior to the third merger wave. What has differed over time is the degree to which these laws are enforced.
5. One may argue that in a capitalist society the state always encourages corporate actors to act in their own interests. Few would deny, however, the existence of variations in the state's posturing and actions over time. Such variations do make a difference. It is worth noting that the greatest increases in merger activity occurred during the three waves (1890s, 1920s, and 1980s) when the state espoused a zealous laissez-faire ideology.
6. Euromarkets consist primarily of two markets: Eurocurrency and Eurobonds. Eurocurrencies are deposits made in banks outside the country whose currency is being deposited (for example, dollars deposited in London or pounds sterling deposited in Paris). Eurobonds are longterm debt instruments that are issued and sold outside the country of the currency in which they are denominated (Baughn and Mandich 1983).
7. In particular, federal regulations changed to allow federally chartered thrifts to invest up to 11 percent of their assets in high-yield bonds (junk bonds). Six states (California, Connecticut, Florida, Louisiana, Ohio, and Utah) passed laws that allowed state-chartered thrifts to invest even higher percentages of their assets in high-yield bonds, generally between 15 and 30 percent (U.S. House 1989).
8. For example, Ivan Boesky owned the Bank of Santa Barbara. Ron Perelman owned San Antonio Savings, and Carl Linder owned American S&L. All three belong to Milken's junk bond network, and Perelman and Linder had reputations as corporate raiders.
9. In its most popular form, an LBO occurs when a small group of investors, usually including the management of a company, buys out its public shareholders by borrowing against the assets of the company being bought, and then repays the debt with cash from the acquired company or, more often, by selling some of the company's assets.
10. Junk bonds (also called high-yield bonds) are unsecured bonds, whose payment of interest and repayment of principal are potentially in doubt. As a result, interest rates are higher than those of investment grade bonds. The ratings on investment grade bonds range from a high of Aaa to a low of Baa by Moody's and from AAA to BBB by Standard & Poor's; ratings for junk bonds ranged from a high of Ba down through C by Moody's and from BB to D by Standard & Poor's.
11. Mark Shenkman of Lehman Brothers gave the following explanation of why DBL and not Lehman became the market leader in junk bonds: "[T]he big concern at Lehman was, 'What will General Foods say [about its investment banking firm peddling such declasse merchandize]?' All the establishment

firms were slow coming into this business because they wanted to protect their franchise with the blue-chip companies. Drexel had no franchise to protect" (Bruck 1988:48).

12. Not only did Milken and DBL have a substantial stake in many of these companies, often owning both their debt and their equity, but DBL's corporate executives would typically sit on their boards (Baker 1990).
13. We limited our data set to the top 50 mergers because the amount of missing data increases rapidly as the size of the merger decreases.
14. The categories of member and challenger were assigned by the tier location of the investment bank arranging the merger. An investment hank was coded as a member if it ranked as one of the top 15 investment banks in 1980. In 1977 first-tier investment banks averaged 52 Fortune 500 clients each, as compared to 5 Fortune 500 clients for second-tier banks (CDE Handbook 1980). All second-tier investment banks were coded as challengers. DBL and KKR accounted for 40 percent of all mergers in the challenger category.
15. These need not be mutually exclusive categories. Our sample includes 83 LBOs (of which 33 were not junk bond financed) and 91 junk bond—financed mergers (of which 27 were not LBOs).
16. The average size of an LBO among the top 50 mergers grew from $340 million in 1982 to 1983 to $L3 billion in 1984 to 1986, then to $2.2 billion in 1987 to 1989.
17. The average size of the top 50 mergers involving junk bond financing grew from $213 million in 1982 to 1983 to $L5 billion in 1984 to 1986. then to $2.5 billion in 1987 to 1989.
18. In 1989, there were at least 10 hearings on LBOs alone.
19. Bruck (1989) suggests that the Administration's action might also be seen as a backlash by excluded members to the growing strength of DBL. Before becoming Treasury Secretary, Brady was head of Dillon, Read. In 1977, Dillon, Read ranked 11th among investment banks: by 1989 it ranked 32nd. John Gutfreund, chairman of Salomon Brothers told Bruck, "Brady is a patrician. . . . The style of investment bank that Dillon, Read excelled at seems almost anachronistic on Wall Street today.... [Such] banking relationships ... were predicated on good advice. some family connections, and reliably honorable service. . . . [B]ankers got paid a fee but never got extraordinarily rich " (p. 82).
20. Milken agreed to plead guilty to six felonies and pay $600 million in April 1990. He was barred from any future dealings in the securities markets and sentenced to 10 years in prison. He was released in January 1993 after serving less than three years.
21. For example, during the first merger wave (1892-1902), the role of challenger was played by four independent promoters: John R. Dos Passos, Charles R. Flint. James H. and William H. Moore, and Moore & Schley, a small brokerage firm. To raise the funds needed to expedite their mergers, these challengers came up with the innovation of offering the public the same preferential treatment formerly tendered only to private stockholders. That is, an investor who subscribed to a share of preferred stock also received a certain (usually equal) amount of common stock. So successful were these promoters with their innovation that they executed nearly one-third of all the large mergers during the wave. Well-established investment banks (i.e., the members) first dismissed and then slowly adopted the challengers' financing methods. Although the investment hank J. P. Morgan and Company managed some of the largest industrial mergers during this wave (and thus did much in the popular mind to link investment banking with this merger wave), member investment banks were responsible for handling only one-fourth of all the large mergers between 1898 and 1902 (Navin and Sears 1955: 129-38).