CAPITAL MARKETS

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Capital markets are the organized processes by which funds for long-term investment (or capital formation) are raised, securitized, distributed, traded, and—perhaps most important of all—valued. Historically, the major instruments of finance created and traded in capital markets have consisted of long-term government and corporate bonds, which are certificates of indebtedness, and corporate stocks, which represent ownership equity. Mortgages and other long-term loans made by banks and other lenders also qualify as capital market instruments, but in this essay we deal mainly with the traditional stock and bond securities as well as with those institutional banking functions that are involved in the creation and distribution of these securities. In any case, the distinction is of diminishing importance: modern capital markets have blurred it through the development of hybrid securities as well as securitized mortgages and other forms of loans, which, by pooling nontradable loans and then issuing tradable securities against them, increase the liquidity and negotiability of the original loans.

THE ROLE OF CAPITAL MARKETS

Capital markets are divided into primary (issuing) markets and secondary (trading) markets. Primary markets are those in which securities originate as borrowers (typically corporations and governments) contract with lenders and investors to issue securities and exchange them for money. When the contract stipulates that the borrower issuing securities will receive a specified sum from the lenders/investors, the sale of the securities is said to be underwritten—that is, guaranteed. Secondary markets are those in which securities are traded among investors after their origination. These markets, often referred to generically as the bond market and the stock market, continually value and revalue stocks and bonds and provide them with liquidity. Specific examples are the New York Stock Exchange, the over-the-counter dealer markets in corporate stocks and bonds, and the markets for government securities—specifically U.S. Treasury bills, notes, and bonds.

How important are the capital markets in the overall scheme of economic life? Despite the great attention they receive from the broadcast and print media, their influence in the modern economy can be exaggerated. From the 1960s through the 1980s, American corporations have generated most of their capital (60 to 80 percent) from retained earnings and depreciation allowances (cash flow) and the rest from borrowing (only part of which took the form of bond issues), with little capital raised by new stock issues. Governments, moreover, despite all the talk of deficits, finance most of their activities by means of taxation rather than by issuing bonds. Academic economists are often asked for their opinions on the stock market, and most of them are puzzled by the lay interest: they consider it an economic sideshow in which old securities are merely shuffled among owners. The securities industry proper, recent government reports have noted, employs less than 1 percent of the U.S. labor force (although financial services as a whole employs a considerably larger percentage).

The capital markets might thus first appear to be a marginal affair, generating a few more dollars for corporations and governments and a few more jobs for the economy. Yet it is precisely because the capital markets are "marginal" in another, purely economic sense of the term, that they are so important. The prices of goods and services, of productive resources, and of real and financial assets are all determined at the margin—where suppliers meet demanders to determine the marginal benefits of each additional good, service, or asset as compared to its marginal costs. The results of these determinations are valuations that are indispensable to modern economic life. In the capital markets, it is the securities representing the accumulated assets and liabilities of the past—all of them, not just the fraction traded on a given day—that are valued. This, then, becomes key information for judging the performance of corporate managements as well as of those who manage government affairs. For example, the stock market values a corporation such as General Motors every day. The bond market values General Motors' outstanding debt, as well as that of the U.S. government, in like fashion. The capital markets also enable the rate of exchange between present and future values to be determined so that investors can make reasonable decisions whether to buy, sell or hold on to corporate or government assets, and at what price.

To put it another way, capital markets are markets in financial information. Financial information is both an input into and a product of the decisions that are made in capital markets. How such information is generated, interpreted, and controlled matters greatly to the society at large. Thus the changing patterns of generating and managing financial information—including who has it or controls it, how it is processed, and who uses it—are central to understanding the historical development and regulation of capital markets.

But capital markets cannot be defined adequately in simple, static terms. Their characteristics, like those of all social processes, are contextual and dynamic. Thus if we want to know more about the nature and function of capital markets in the United States, we must address the relevant historical questions. When and why did capital markets emerge, and what were their distinctive attributes? How did the nation's capital markets come to be centered in New York, given longstanding opposition to any concentration of financial power? What was the role of the financiers who served as conduits in the capital markets in the shaping of American enterprise? More specifically, how do we account for the rise, the eclipse, and then the recent resurgence of the influence of financial capitalism over corporations? And finally, why were capital markets subject to government regulation, and what were the effects of that regulation?

In considering these questions, there are four key elements that form the thematic basis of our story. One element is largely ideological: the age-old American mistrust of concentrated financial power, a sentiment that threads through the entire fabric of American history. Related to that mistrust is a second element: the political process of regulation, which has been used, abused, and circumvented with results that were often unanticipated and unintended. The regulation of capital markets has waxed and waned over time in its effectiveness and intensity. As the twentieth century draws to a close, however, the results of regulation are uncertain. In the United States, regulation of the capital markets has served to enhance the quality and quantity of information available to investors. Regulations have also served to perpetuate a uniquely American fragmentation of power in the financial services industry. Yet, insofar as regulations have in any way influenced prices, they have, in effect, distorted the informational role of the price mechanism itself, as it is ideally supposed to work in a free market. Thus the reasons for regulation have to be carefully justified, if not morally or rationally, at least historically.

A third element of our story is information. Capital markets are fundamentally arenas in which information—a scarce good—is created, processed, and exchanged through the mechanisms of bids, offers, orders, and prices. Information is an element of capital markets that has developed in relatively linear fashion; it has spread and improved in quality over time. This has occurred in large part because of regulation, especially during and after the 1930s, but also because of improvements in information technologies.

Finally, in the twentieth century, there has been a progressive democratization of the capital markets. Participation in the markets has broadened to include wide segments of the population, the result, in large part, of the growth of such institutions as mutual and pension funds. It is true that even today, sophisticated investors or institutional participants can gain competitive advantages through superior knowledge or market power in particular investment arenas. But, on balance, anyone who is interested can enjoy timely access to the kind of high-quality information that had once been available only to small groups of wealthy bankers and their major clients.

All four elements—ideology, regulation, information, and democratization—are historically interrelated, and their interplay in the peculiar contexts of American life has resulted in an institutional arrangement that is remarkably fragmented, and yet robust, by world standards.

It is worth noting that in some ways the Wall Street institutions and markets of today seem to be exhibiting a tendency to return to the commanding positions they reached nearly a century ago. Parallels can be drawn to show that now, as then, financiers use the large pools of capital at their disposal to reshape the U.S. economic landscape; to buy, sell, and control corporations; to oversee the international flow of capital to and from the United States; and, in the process, to enrich themselves. But the road from J. P. Morgan and Kuhn, Loeb, at the turn of the century, to Drexel, Burnham, Lambert and Kohlberg, Kravis, Roberts toward its end, has gone through many twists and turns, as well as ups and downs. And while some contemporary observers argue that it has emerged rather close to where it started, the facts lead to a more complex set of conclusions. Superficial resemblances between early-century financial capitalism and more modern manifestations of financial control mask deeper changes in the basic structure of the capital markets—changes that are examined in the following pages.

THE NINETEENTH-CENTURY BACKGROUND

The basic elements of the modern American capital markets were in place at the turn of the twentieth century. The capital markets—and the institutions, organizations, and individuals that formed them—discharged large-scale and sophisticated economic functions in mobilizing, distributing, valuing, and revaluing capital. Centered then, as they are now, in New York City's Wall Street, the American capital markets operated on behalf of businesses, governments, and, for the most part, wealthy individuals. But the reach of the capital markets extended far beyond a few city blocks at the lower tip of the island of Manhattan; they extended throughout the United States and the entire world. In response to unusual or unexpected developments, the capital markets could become unglued, with prices fluctuating wildly upward and downward, the former movements generating financial euphoria and the latter sometimes culminating in worldwide financial distress and even panic.

To appreciate this state of affairs, we must review the earlier history of capital markets, which began to take shape in the United States in an economic setting vastly different from that of the industrial society of the early twentieth century. At its inception, the United States was a scattered collection of agrarian communities peopled mainly by self-sufficient farmers. Commerce engaged less than 10 percent of the population and was concentrated mainly in a few coastal cities, where there was as yet little demand for long-term capital investment. Businesses were small and proprietary. Governments at all levels of jurisdiction, except when they needed funds for emergencies or public works construction, managed most of their modest operations through current receipts from taxes and licenses. It was only later, as industrialization began to produce large-scale enterprises requiring massed capital, and as state and federal demands increased for long-term funds to support infrastructure projects (and, in times of war, large-scale military procurement) that there evolved more specialized functions for raising capital through the issuing and sale of securities.

Although sporadic and small in volume, secondary markets for securities formed to trade primarily in debt securities. With the ratification of the Constitution, the nascent federal government's assumption and refunding of the states' and national Revolutionary War debts whetted speculative interest. By the 1790s, brokers conducted daily auctions of government bonds and bills of exchange from newly emerging state banks and the First Bank of the United States, as well as of other obligations that had the potential to rise in value. By 1792, rudimentary stock and bond exchanges were operating in New York and Philadelphia, and in 1817, the New York Stock & Exchange Board opened for business on Wall Street as a self-regulating group of traders in reputable securities. Securities that fell outside their purview were traded outdoors, "on the curbstone," the forerunner, by tradition, of the American Stock Exchange.

The establishment of the predecessors of the New York and American stock exchanges, several prestigious commercial and private banks, and such major buyers of securities as life insurance and trust companies, all in close proximity in lower Manhattan, made Wall Street the symbol of the nation's capital markets. In popular parlance, "the Street" came to represent New York's financial community as early as the 1830s, when it still competed with Boston and Philadelphia for primacy in the field.

After independence, such institutions as publicly chartered and private banking houses gradually assumed the less formal credit functions of colonial merchants. The first American banks accepted deposits, dealt in foreign and domestic exchange, issued notes that circulated as currency, made short-term loans (of less than a year's duration) to businesses for working capital, and invested in securities (long-term loans). Antebellum businesses, including commercial agricultural operations, could normally meet annual demands for working capital through the equity investments of wealthy individuals supplemented by rolling short-term credits via merchants or other unspecialized intermediaries. Such loans were secured by promissory notes or collateral in the form of claims on crops, real estate, and, only occasionally, securities.

By the mid 1830s, the American banking system—if it could be called that—was highly fragmented and uncoordinated. The antebellum United States was less a nation than a confederation of sovereign republics, or states, each jealously guarding its right to control the establishment of banks, each precluding the entry of "foreign" banks into its territory. Thus banks could not branch across state lines, and in some states they could not branch at all. Hundreds of banks not only accepted deposits and granted credit, but also issued bank notes that circulated, at varying discounts, as money. The nation as a whole had no policy or mechanism for regulating the supply of money or credit in the economy or for establishing and maintaining uniform standards for solvency and sound banking practices. On the other hand, as the nation's economy began to diversify around regional comparative advantages, the fragmented nature of the banking system served to stimulate capital market development in the larger cities, especially the major seaports, where regional banks deposited money to finance interregional trade.

The fragmented banking system rested on a substrate of libertarian sentiments, the accretion of more than a century and a half of Anglo-American ideological and political development. The sovereignty of ordinary citizens had gradually displaced the traditional claims of aristocrats, oligarchs, and theocrats. Notwithstanding the exclusion of slaves and women from the full rights of citizenship, colonial American males with different social statuses and interests—seacoast merchants, southern plantation owners, urban artisans, and the mass of yeomen farmers—were radical levelers by world standards.

The new nation's inhabitants, moreover, were a remarkably diverse people for the time. Ethnic and religious diversity and geographic sectionalism appealed to political theorists like James Madison, who argued in *The Federalist* 10 that it was precisely the factional contentiousness of American society that would prevent its political institutions from descending into tyranny. In a marketplace of contending ideas and interests, Americans could at least agree on certain fundamentals. They were united by their love of political freedom and their desire to claim their shares of the material abundance that the new nation's vast resources offered them. They were united in their hostility to anything that might hamper their individual pursuit of happiness. They were especially suspicious of centralized government and executive power, the twin evils of the ancien régime, and reinforced the factional nature of the young Republic.

The new national order reflected the continuing fear of concentrated power. It was a well-articulated, philosophically justified tendency of mind that spilled over into every organized realm of American society. As the new nation began to industrialize, and as it hastened to integrate interregional trade, it proved politically difficult to create the kind of large, interregional financial institutions that might have made economic development more efficient than it was. Three antebellum attempts to establish a permanent central bank all foundered on the shoals of republican ideology and interest-group rivalries. Toward the end of the Revolutionary War and then later, from 1791 to 1811 and from 1816 to 1836, the central government experimented with national banks. The failures, in turn, of each of these institutions to secure rechartering as a federal central banking institution resulted from persistent worries about concentrated financial power.

Consider what happened when the nation's very first bank, the Philadelphia-based Bank of North America, was chartered by the Continental Congress in 1781. Capitalized at $400,000, the Bank's public purpose was to mobilize private credit for government needs. Although hardly a financial powerhouse, the Bank of North America was a monopoly grant, and as such it seemed to fly in the face of the spirit of egalitarianism and decentralization that suffused the new political order. Then in 1791, Congress incorporated the Bank of the United States, the purpose of which was to act as fiscal agent for the government and to stimulate private enterprise. Again, because the bank was controlled and managed by private investors, it was roundly condemned by noncommercial and agrarian interests as a rank monopoly privilege. When the bank's twenty-year charter came up for renewal in 1811, Congress failed by one vote to pass the necessary legislation.

The Second Bank of the United States was established in 1816, after war (1812–1815), rampant inflation, and the mushrooming of state-chartered banks (the number had increased from 88 to 246 in five years) created monetary chaos and a crisis in the public and private markets for credit. The Second Bank operated some sixteen branches around the country and came to perform many useful central banking functions: assisting in the management of government financial transactions, creating money through the issue of bank notes, holding international monetary reserves, and making both short- and long-term loans. Also, the Second Bank, like the first, served as a constraint on the propensity of state banks to expand credit. But bowing to political pressures from a coalition of state bankers (who could not branch across state lines), populist farmers and tradesmen (who wanted easier credit), New York bankers (who wanted their city to be the nation's financial center), and strict constructionists, Andrew Jackson vetoed Congress's renewal of the Second Bank's charter in 1832. He did so with a ringing populist indictment of what he saw as an invidious concentration of financial power in the hands of a small wealthy class that was, to make matters worse, in alliance with foreign capital. On more philosophical grounds, he argued that the bank was an unconstitutional "invasion . . . of the rights and powers of the Several States." His veto message was read widely then and thereafter to generations of schoolchildren to come, and it conferred even greater legitimacy on popular hostility against institutions of size and power. Fears of moneyed monopoly and the concentration of financial power into the hands of a few wealthy men would smolder on into the future, flaming up from time to time whenever the activities of powerful financiers were widely publicized.

There would be no central bank in the United States until the establishment, in 1913, of the Federal Reserve System. By the mid-nineteenth century, the institutional landscape of American finance featured a hodgepodge of state-chartered commercial and savings banks, as well as unchartered private banks. Only after the Civil War did the National Currency and Banking Acts of 1863–1864, along with prohibitive taxes on state bank notes (which made possible the establishment of a homogeneous paper currency), ease the financial development of a national economy. The fragmented structure of American banking, meanwhile, prolonged and reinforced the traditional flow of funds from the hinterlands to the great cities, of which New York became the most important. New York's size, its seaport, its stock exchange and call-loan markets, and its substantial number of insurance and trust companies all enhanced its position as a great "money center." The largest of the New York banks became the nation's most important agencies of credit, positioned as they were at the top of a kind of pyramided system of money reserves.

In the meantime, creative entrepreneurs began to take on capital market functions in response to growing public and private demands. Following the lapse of its federal charter, in 1836, the Second Bank of the United States pioneered private institutional investment banking functions. It marketed both government and corporate (mainly railroad) securities overseas on a commission basis. Antecedents of the modern investment banking function were also found in opportunistic middlemen, who on an occasional basis mobilized capital for canals, other internal improvements, and extraordinary government needs. In 1813, for example, the Treasury Department asked a small group of wealthy merchants to distribute bonds to raise $10 million toward the war against Great Britain. By the 1840s, commercial banks were performing investment banking functions for both public and private enterprise, albeit still on an occasional basis, alongside auctioneers, brokers, and unincorporated private bankers. Thereafter, private bankers and leading commercial bankers who could promote and engineer long-term investments became increasingly valued for their abilities to address the ad hoc complexities of particular business problems.

By the end of the Civil War, the potential scope of the capital markets had suddenly widened. A big increase in government debt (which, in the absence of taxes, had to be funded and refunded with private capital) and the development of techniques for marketing securities to large masses of people were direct consequences of the war. The application of government budget surpluses to pay down the debt put large amounts of funds in the capital markets for reinvestment in railroads—the one truly big business of the era—and other private enterprises. Even before the Civil War, the needs of railroads had already led to some widening and deepening of capital markets. No one could expect to build, let alone operate and maintain, a rail line without pooling substantial investments.

It was indeed the rapid increase in railroad construction after 1850 that called forth a new breed of investment bankers (though they were not known by the term until three decades later). Between the Civil War and the end of the century, small partnerships of private bankers in the northeastern commercial centers floated and distributed various types of railroad securities, including mortgage, equipment, and income bonds, as well as equities. They also channeled foreign investment into the United States for both railroad and government issues. (Between 1870 and 1900, foreign investment in the United States increased from $1.4 billion to $3.3 billion.) Commercial banks in New York also dealt in long-term securities. In Chicago and around the rest of the country, local commercial banks served as investment bankers for regional railroads and public projects and provided venture capital for other fledgling enterprises.

The most prominent of the new breed of private investment bankers was Jay Cooke, whose greatest coup was the sale of more than $500 million in federal bonds during the Civil War. This he accomplished through a well-coordinated network of Wall Street brokerage houses and a national sales force of some

2,500 subagents. He continued to handle most of the government's refinancing operations after the war, forging close connections with leading European firms. Cooke was the first to demonstrate the possibilities of mass marketing securities to thousands of people who had never before invested in anything. Cooke, however, went bankrupt when he found too few takers for an issue of less-than-pristine-quality railroad bonds he had promoted and then underwritten in 1873, thereby triggering one of the frequent financial panics of the nineteenth century. His undoing temporarily stalled progress toward broad public participation in the capital markets. Small investors would not be a sustaining factor in the capital markets until the 1920s.

Cooke was superseded in preeminence by John Pierpont Morgan, who vowed in the aftermath of the Cooke debacle to deal only in high-grade securities. J. P. Morgan & Company became by far the most important of a group of investment intermediaries known as the Yankee Bankers. This group of generally patrician, Anglo-Saxon, Protestant gentlemen emerged from the old Anglo-Saxon merchant communities of Boston, Philadelphia, and New York, giving rise to such firms as Kidder, Drexel, and the predecessor to J. P. Morgan, George Peabody & Company. (Peabody had migrated from Boston to London in 1835, where he played a vital role in establishing American credit abroad.) These bankers mobilized the surplus funds of foreign capitalists, particularly in England, for investment in the New World. The great Yankee Bankers typically dealt directly with only a small, elite circle of institutions and wealthy individuals.

Another distinctive group of private investment bankers emerged among well-connected German-Jewish immigrants. A few, like August Belmont, Rothschild's representative to America, arrived as bankers. Most started out as peddlers or wholesale merchants whose close international family and business ties and access to European capital enabled them to build investment houses of durable strength. In addition to Kuhn, Loeb, such firms as Seligman; Goldman, Sachs; and Lehman Brothers were in full flower in New York by the 1880s. Like the Yankee Bankers, their primary business relations seemed to operate as closed communities.

The ethnic and religious differences between the Yankee and Jewish bankers, and occasional tensions that developed around them, became an important part of the cultural milieu of Wall Street. Although these differences only rarely distorted the financial logic of syndicate-financing participation, they certainly affected hiring patterns and divided the nation's leading financiers into ethnically distinct tribes, with the Yankees erecting barricades of discrimination around their exclusive clubs and closed residential communities. To people outside the industry, the internal division of Wall Street was less problematic than the apparent coalescence of high finance around distinct tribal groups, which served only to increase the sense of the ordinary citizen's distance from the centers of economic power. The fact that one of those tribes was Jewish exacerbated the fear (among a largely anti-Semitic population) of those who had control over large sums of money—the movements of which seemed arcane and information about which was remote, if not altogether inaccessible.

THE RISE OF FINANCIAL CAPITALISM

At the turn of the century, investment bankers were still few in number, and like secular priests, they dealt in the mysteries of securities—their origination, their distribution, and their valuation. Although there had developed a common body of basic financial instruments and techniques, it was the uniqueness of each financing that made the investment banking business more of an art than a science, more an arena for highly talented craftsmen than for technicians. Entry into and survival in the inner circles of high finance required mutual confidence in the skills and reliability not just of the institutions but of the individuals who represented and sold securities. Indeed, it was the sophisticated, specialized, and personal nature of investment banking that endowed its rare practitioners with so much authority and gave them the power to exact large fees for their services. From the 1890s to 1912, the greatest of the investment bankers capitalized on their key positions in the financial affairs of the nation to exercise active control over the institutions they financed.

Before 1890, the main activity in the capital markets was in government and railroad securities, as the consolidation of the nation's proliferating railways into larger administrative systems moved apace. The railroads were the schools of high finance. Their scale and complexity brought forth modern techniques in pricing, underwriting, and syndicating securities as well as in methods for effecting corporate acquisitions and consolidations, bankruptcy rescues, and refinancings.

As bankers became more actively engaged as advisers to, and board members of, the railroads, their close relationship with the companies they financed was reassuring to the buyers of securities. Through their reputation for expertise and integrity, and their willingness to exercise ongoing fiduciary responsibility, bankers became proxies for the soundness and safety of the investments they had placed. Jacob Schiff argued that by the turn of the century, investment bankers had become more "honest in their respect for the moral obligation assumed toward those who entrusted their financial affairs to them," which in turn obliged them as a matter of professional self-interest to help nourish and protect their clients' investments over the long term. Except for the rankest short-term speculators, future deals depended on the reputation for past success, and past success meant taking care of one's security-holding clients.

In an early example of this trend, Francis Peabody of Kidder, Peabody & Company joined the board of the Santa Fe Railroad in 1871 and became chairman of its finance committee. As the Santa Fe expanded from a regional to a national organization, Kidder, Peabody floated its securities (usually in cooperation with other Boston-based banks and Baring Brothers in London), served as its transfer agent and bank of deposit, and provided financial advice to the railroad's management. When, in 1887, the Santa Fe found itself in dire straits from overexpansion, Kidder, Peabody stepped in to restructure the company's debt. The bankers imposed rigorous financial and accounting controls, reformed the company's administrative organization, and reorganized its financial structure by consolidating its outstanding bonds in such a way as to reduce its fixed charges without hurting its bondholders over the longer term. Kidder, Peabody also designed a program by which it would hold the company's stock in trust for a period of years to ensure that the reforms would be honored, while at the same time protecting the railroad from potential corporate raiders. J. P. Morgan would carry such intervention to even greater lengths in his "Morganizations" of distressed railroads over the next fifteen years. Through his conversion of bondholders to stockholders, whose interests were then protected by banker-dominated "voting trusts," Morgan brought railroad executives to heel in the service of their creditors and owners. He once found it necessary to admonish a railroad president with the curt reminder that "your roads belong to my clients." Thus did the great railroad bankers distinguish themselves from mere speculators, men like the raider and proto-greenmailer Jay Gould, who made money by manipulating securities prices and churning investments without regard for the long-term health of the underlying enterprises.

Industrial—manufacturing, processing and merchandising—companies of any size were few before the 1890s. But with the consolidation of transregional railroad and telecommunications systems arose the potential to exploit a national market for goods and services. Entrepreneurs went to work after 1873 to match the national market with the technological potential for mass production and distribution. They often did so by combining the assets of several producers, which not only reduced competition, but also made it possible to achieve lower costs through economies of scale. They then integrated forward into product distribution and backward into resource acquisition in order to achieve and protect the economies that could be realized through high-volume operations. Andrew Carnegie was rare in his desire to build his steel empire through partnership investments and retained earnings. The creation and expansion of most large corporations usually outstripped the ability of families and small groups of owner-managers to finance them, and so it became necessary to establish a market for industrial securities.

In the 1880s, a few companies in the processing industries, led by Standard Oil, devised trust arrangements to evade barriers in state law that limited one company's ability to own and control another. Formerly competing producers submitted their ownership rights to a governing trustee in exchange for trust certificates. The passage of the New Jersey Holding Company Act in 1889 effectively removed the barriers that had prevented companies from controlling other companies across state lines. Then the Sherman Antitrust Act of 1890 proscribed cartels and, by implication, the kind of trust arrangements that had developed in the oil and other processing industries in the 1880s. The political intent of the act, which was largely directed against big business, had the ironic effect of encouraging legal mergers, where trusts and less formal associational arrangements had once served. After the sharp depression of 1893–1895, all the elements were in place for a boom in the formation of ever larger industrial combinations.

Yet the market for industrial securities was regarded as extremely risky, and at the turn of the century, debt was still the preferred mode of investment. Bonds, usually mortgaged by real estate, plant, and equipment, were the primary source of capitalization among railroads, but obligations to meet the fixed charges of bonds could often lead to difficulties in hard times. This was thought, perhaps erroneously, to be even more true of industrial companies, thus driving up the cost of their debt. The alternative of industrial common equities was even more suspect.

Unlike debt, which was normally backed by liens on tangible assets, the ownership of common stock offered the less palpable promise of capital gains and uncertain dividends. In other words, common stock carried the "water" in the capitalization. To many contemporaries, this made the value of stock simply too variable and indeterminate to trust.

Corporate owners and managers, too, had motives that contributed, at least indirectly, to the relative unpopularity of industrial stock. The sale of equity threatened to dilute the control of owners, who, even if they floated stock, were seldom eager to provide the public with the kinds of information that would have made their equities seem less speculative. Professional managers did not yet see what by the 1930s would be a widely accepted fact of corporate life: that as a class, it was they who would benefit by increasing their independence from the traditional constraints of ownership.

To some extent, investment bankers were able to overcome some of the market resistance to industrial equities (and in the process allay managers' fears of dilution) by the innovative deployment of preferred stock. This financial instrument, a hybrid of equity and debt, had come into favor in railroads in the 1870s. Like bonds, preferred stock offered a predictable source of current income, paying fixed dividends; yet unlike most bonds, it could not be called in by the issuer. Sometimes preferred stock came with voting rights (the Mellons used this technique with Alcoa), but usually not. More important to investors was that the claims of preferred stockholders superseded those of common equity holders in bankruptcies, and preferred dividends were cumulative. At the turn of the century, preferred stocks typically yielded 7 percent dividends, which made their returns more attractive than government bonds at 2 percent, railroad bonds at 3 to 4 percent, and New York City mortgages at 5 percent or so. Other creative applications of financial instruments, after 1901, included the development of debentures (bonds unbacked by tangible collateral) and the increasing use of convertible bonds. Convertibles, instead of being based on mortgaged collateral, offered investors the possibility of becoming equity holders in a successful enterprise, thus enabling already indebted industrial companies to expand without reconciling prior liens.

The financial power of the most creative and expert bankers concentrated at the pinnacle of big business. The market structure of the new capital-intensive industries was moving rapidly toward oligopoly, and this was reflected in and abetted by the tendency for a relatively small group of investment bankers to control securities issues. Consider the structure of the major underwriting syndicates. Underwriting, once a simple guarantee to buy a portion of a securities issue that found no immediate market, had elaborated into a more complex sequence of functions. In their mature form, underwriting syndicates were responsible for the origination of securities (which involved determining the types, amounts, and terms), the purchase of securities from the issuer, the funding of securities (between purchase and sale), and the placement of the securities with brokers, dealers, and ultimate investors. The first three functions were the responsibility of the originating house, which for large issues was usually one of a small number of investment banks, described by Fritz Redlich as "the apex of [a] pyramid" of intermediaries that was "supported by chains of middlemen."

There was a common perception that being asked to participate in a syndicate was an offer no firm could refuse, lest it be excluded from future participations. The effect, according to no less an authority than Jacob Schiff, was to cement an alliance among a "small circle of friends" who lived by an implicit "bankers' code." In practice, the code was anticompetitive in many respects. The vaunted efficiency of the market was undercut by the degree to which bankers felt compelled to participate in what they sometimes thought were bad deals. The code also reduced competition for originations (rarely did major bankers go after one another's clients) and promoted the concentration of securities underwritings. In 1913, George F. Baker of New York's First National Bank explained to congressional investigators that for the preceding decade, every issue of corporate securities greater than $10 million was floated by syndicates led by a small group of apex firms. Mostly located in New York, these firms included J. P. Morgan; Kuhn, Loeb; the First National Bank; the National City Bank; Kidder, Peabody; and Lee, Higginson. They varied somewhat in function: Morgan and Kuhn, Loeb, the great "wholesalers," focused exclusively on underwriting, whereas Kidder, Peabody and Lee, Higginson (both Boston firms) established branch offices and retailing services. First National and National City were primarily commercial banks. Collectively and pejoratively, these alliances came to be known as the "Money Trust."

The influence of the apex firms was felt directly in the boardrooms of many of the nation's most important enterprises. In 1912, officers from just five New York banks (First National, Banker's Trust, Guaranty Trust, J. P. Morgan, and National City) were shown to hold 341 directorships in 112 companies—in banks, insurance, transportation, public utilities, manufacturing, and trading. First National's Baker, alone, held 58 seats; the Morgan partners, 72. The presence of so few bankers on so many boards, including those of competing companies, gave rise to very real conflicts of interest. Bankers on boards were at once fiduciaries to securities holders as well as fee-taking intermediaries. The result was that corporations, consumers, and securities buyers alike might be subjected to "taxes" in the form of higher securities prices and higher product prices. On the other hand, bankers had an important disciplinary role to play in the large-scale industrialization of capitalist societies. Historians have long noted that the cooperative role of the great banks of Germany and Japan in corporate governance had generally positive effects on the development of capital-intensive industries in those countries. Despite the fragmentation of the American banking system and the small-scale nature of American investment banking institutions, there is ample evidence that the few great bankers who specialized in high finance performed valuable services as directors of major U.S. corporations during their critical stages of growth at the turn of the century. If the bankers who mobilized and channeled capital to corporations could warrant to outside investors the value and quality of their investments, they could also monitor managers far more effectively and respond to a company's administrative and financial crises far more quickly than dispersed owners of securities could themselves ever hope to do.

The intervention of financiers into the corporate governance of nineteenth-century railroads extended quite naturally to the new industrial corporations of the twentieth century. This was an important development because, left to their own devices, the new class of professional managers of large industrial corporations had a general preference to retain earnings, and so they would try to shield themselves from pressures from outside equity investors who were apt to be impatient about receiving their dividends. But managers could not so easily stave off the influence of bankers, who in the formative years of big business sought not only to enforce the covenants of debt obligations but also to serve as active fiduciaries for public shareholders. Bankers might agree with managers to keep the details of corporate finances under wraps. Bankers were also likely to take a nurturing, long-term view of investments and were sympathetic to the proclivities of progressive managers for plowing back earnings for developmental projects and capital improvements. But bankers might also act to enforce the interests of owners—whose risks they represented and often shared—when managers' plans went awry. At most they could direct managers into particular paths of behavior. There is econometric evidence to support the view of pre–World War I Morgan directors that the benefits of their boardroom activities more than offset the costs of their lavish fees. According to a study by Bradford DeLong, Morgan-influenced companies "sold at higher multiples of book value than other companies, and they did so not [simply] because of the advertising value of the Morgan name, but because they earned higher returns on capital."

In other words, bankers, as active monitors of corporate enterprise, filled the breach between the increasingly dispersed owners of large-scale enterprise and the professional managers who were nominally (and legally) still the agents of the stockholders. Honest bankers, moreover, staked their names (and prospects for future business) on the soundness of the assets they represented to the public. Thus the reputations—the "character," as J. P. Morgan put it—of the great investment bankers became proxies for the soundness of investments they managed in an otherwise mysterious, changing, and volatile economy in which great corporations were becoming established as the central institutions of the new industrial order.

MATURE FINANCIAL CAPITALISM: THE U.S. STEEL CORPORATION

Consider what happened at the dawn of the "American Century." In 1901, a series of dramatic business events occurred, many of which centered on the activities of Wall Street. Railroad consolidation moved apace as J. P. Morgan & Company, Wall Street's preeminent firm, completed the merger of the Pennsylvania Coal Company with the Erie Railroad and acquired the Central Railroad of New Jersey for the Reading. Widespread market speculation in other rail securities culminated on 9 May, when two railroad-banker alliances, struggling for control of the Northern Pacific Railroad, touched off one of history's more bizarre stock market panics. The Harriman–Kuhn, Loeb group and the Hill-Morgan group had secretly purchased nearly all the shares of the Northern Pacific, cornering numerous shortsellers who had sold into a rising market blissfully ignorant of the battle for corporate control that was behind the stock's rise. As the shorts scrambled to buy Northern Pacific shares, selling other companies' shares to finance the scramble, prices plummeted. Embarrassed by the unintended consequences of their battle, the contending groups reached accommodations with their panicked victims and, later in the year, with each other, when they formed a jointly owned holding company, Northern Securities.

Mergers were underway in virtually every sector of the rapidly industrializing economy, with mixed effects. Major examples of such activity can be seen in communications, transportation, and oil. AT&T relocated its parent company from Boston to New York where it could increase its capitalization and more effectively mount an offensive against smaller, more poorly financed rivals. In April, the House of Morgan purchased a steamship company (Leyland) in Europe, in an attempt to reduce competition in that industry. On the other hand, oil was discovered in Texas, which reestablished competition that had almost been eliminated in the industry by the great Standard Oil monopoly. Such events also set off heady rounds of speculation, and on the last day of April, the New York Stock Exchange posted a record daily volume of 3.3 million shares traded.

The financial markets then, even more than now, were highly sensitive to shocks, and they suffered numerous blows. Labor strikes were rampant, as workers in the new industrial order pressed for collective bargaining power. In September 1901, the assassination of President William McKinley ushered into office a regime more actively concerned with promoting the role of government in the affairs of business. In one of his first acts as president, Theodore Roosevelt launched an antitrust suit against the newly formed Northern Securities combine. Despite the inevitable volatility in the markets resulting from these occurrences, the general trend remained bullish. Over time, the federal government had also learned to make use of the capital markets and, in modest ways, to shape them in the public interest. Stimulating effects resulted from ongoing participation in the markets by the U.S. Treasury, which deployed funds accumulated from federal budget surpluses to buy back government debt. Such actions placed increasing amounts of money at Wall Street's disposal.

And yet, for the student of finance, none of the foregoing was the most remarkable news of the year. That came in February 1901 with the birth of the United States Steel Corporation. To this day, the financing of U.S. Steel ranks arguably as the deal of the century, if only because of the scale of its economic impact in the context of its time.

At the time, the U.S. economy, already the world's largest, had a gross national product of some $20 billion (about $300 billion in early 1990s purchasing power). The $1.4 billion merger that created U.S. Steel (more than $20 billion in early 1990s equivalents) was the capstone of the first great merger wave in history. Between 1897 and 1904, some 4,277 American companies consolidated into 257 corporations. But compared to all the others, the size of U.S. Steel was daunting. Its capitalization, including $550 million of 7 percent convertible preferred stock, $550 million of common stock, and $304 million of 5 percent gold bonds, was equivalent to 7 percent of the year's gross national product (a percentage that would amount to about $400 billion now, vastly larger than any 1980s merger or buyout). The valuation put on the new corporation by its promoters was astonishing; much of it seemed to consist of nothing more than "blue sky and water." It was more than twice the tangible asset valuation of the constituent properties and more than $600 million in excess of the market value of the constituent companies. So astonishing was the scale of transaction that even a well-seasoned investment banker like Isaac Seligman was moved to exclaim, "I confess it is enough to take one's breath away."

The combination of eight giant steel companies (and purchase of several more), complete with ore deposits, iron smelters, steel furnaces, fabricating plants, and connecting railways and shipping lines, demanded an unprecedented placement effort for the new corporation's securities. A large underwriting syndicate undertook the placement, in which three hundred participants agreed to guarantee $200 million of the securities. The lead bankers were J. P. Morgan & Company, whose namesake was the titan of American finance, the "Jupiter of Wall Street." Indeed, John Pierpont Morgan, the country's greatest private banker, the exemplar of sound financial judgment, and the pillar of integrity, was one of the few men in the world who could command the confidence required to pull off such an enormous scheme.

The principal seller in the deal was the great steel magnate, Andrew Carnegie, who, reflecting the views of his generation, was deeply suspicious of the entire affair. He saw little more than water in the value of U.S. Steel's stock when it was floated. Prudent and conservative to excess, he had insisted on taking his payment, all $225.6 million of it, entirely in bonds. If the combine failed, as Carnegie believed it would, he could then recover his properties, "and Pierpont and his friends will lose all their paper profits."

But Carnegie had too little faith. The new securities were placed with alacrity, so great was the investing public's confidence in a Morgan deal. When the smoke cleared, the syndicate had realized $50 million in profits (about $750 million today), fully 25 percent of the amount underwritten (a 5 to 6 percent gross spread is considered quite good for an initial public offering today). The fees, high even by "robber baron" standards, were deemed "greatly in excess of a reasonable compensation" by the new Federal Bureau of Corporations.

The House of Morgan then placed its representatives on U.S. Steel's board of directors, where the financiers would outnumber the steel executives and would therefore have a continuing influence on the giant corporation's policies, strategies, and programs.

The Morgan-led deal that created U.S. Steel was a turning point in the history of industrial securities and in the maturing of techniques in syndicate financing. Morgan and other Wall Street bankers became intimately involved with not only the creation but also the shaping and governance of big business enterprise. Indeed, for historians, the U.S. Steel episode marks the high tide of financial capitalism, a period spanning the 1890s to World War I, when bankers responsible for financing large corporations exercised extraordinary influence over corporate strategy and policy. To contemporary supporters of the transaction, the creation of U.S. Steel was just another, albeit huge, rationalization of yet another disorderly, overly competitive, underperforming industry. Its price, which anticipated a rapid and healthy stream of future earnings, reflected real gains expected from economies of scale and the elimination of "wasteful competition." To contemporary critics, the entire process—the absorption of already large companies into a mammoth combine, the seemingly inflated price of the securities, the huge profits taken by the underwriters, and the apparent influence of Wall Street on corporate governance—portended a dangerous future for American enterprise. Growing fears of the power of a financial monopoly, a Money Trust, on Wall Street led to calls for government regulation of the securities markets and financial institutions.

Government answered these calls. First the states and then, on a greater scale, the federal government would investigate, legislate, regulate, and attempt to reform the capital markets and thereby reduce Wall Street's influence on American economic life.

As a result, the aftermath of the U.S. Steel merger proved to be more than merely ironic. U.S. Steel never achieved the power its supporters had hoped for and its rivals had feared. The industry was already mature; its years of very rapid growth had subsided coincidentally with the great Carnegie's departure from the scene. Although it would remain the world's largest industrial firm for decades to come, U.S. Steel soon resorted to cartel-like techniques for setting prices, simply to sustain "reasonable" profits. The Justice Department charged U.S. Steel with monopoly practices, but the Supreme Court found, in 1920, that the company did not pose a threat to the public welfare on the ground that it lacked sufficient market power to be deemed a monopoly under the Sherman Act. By then U.S. Steel's market share had slipped to less than half and would continue to erode. By the mid-1930s the company controlled only about a third of the nation's output.

And yet the very creation of U.S. Steel ignited the smoldering resentment and fear of large institutions that had been an abiding characteristic of the American psyche since colonial times. U.S. Steel stimulated enough concern about the size and power of business corporations and enough worry about the influence of financiers over the nation's productive capacity that nothing like it would ever occur again. By the time Woodrow Wilson was sworn in as president of the United States in March 1913, the great combines of Standard Oil and American Tobacco had been sued by probusiness Republican administrations and were then broken up by the Supreme Court. J. P. Morgan died within the month, and his successors on Wall Street would never again exert the measure of control he and his partners had exercised over the nation's corporate affairs. Congressional hearings, relentless public pressure, and the looming threat of capital market regulation combined to force investment bankers to the sidelines of corporate management. The Morgan partners and other great Wall Street financiers quietly withdrew from the nation's boardrooms, sacrificing influence for a quieter, less conspicuous role in the nation's economy.

But the fact remains that the representational and oversight functions of early-twentieth-century American bankers were necessitated by the scarcity of public information on corporate performance, a condition to which the bankers themselves contributed. Corporate operating and financial data were enveloped in a shroud of secrecy that outside, or "public," investors could not penetrate. Neither formal annual reports nor independent audits were mandated by law. Reports to shareholders did not just obfuscate; they simply did not report. Such financial data as appeared publicly was flimsy at best, and almost always useless for analysis. When asked in

1899 what he thought of the stockholders' right to know about the affairs of public companies in which they invested, sugar magnate H. O. Havemeyer's reply was the very essence of a Social Darwinist's approach to investing: "Let the buyer beware; that covers the whole business. You cannot wet-nurse people. . . . They have got to wade in and get stuck and that is the way men are educated and cultivated."

PUJO AND THE MONEY TRUST

The growing presence of bankers on the boards of directors of the nation's leading firms and the apparent concentration of securities offerings among a few investment houses fanned widespread fears that Wall Street had seized control of the nation's businesses. These fears coalesced into a vigorous public debate in 1912 when Congress established the Pujo committee—so-called after its chairman, the populist Louisiana congressman Arsene Pujo—to investigate Wall Street. It was a sweeping inquiry into the affairs of money center bankers in which the committee's chief counsel, Samuel Untermyer managed to paint a vivid, albeit distorted, tableau of the Money Trust in which he conjured up the grim specter of monopoly power in the capital market and its alleged death grip on the nation's business. The elderly J. P. Morgan himself was called before the committee not long before his passing to endure nettlesome (some thought, literally deadly) interrogation. When Morgan explained the nature of competition among bankers, Untermyer saw conspiracy. When Morgan argued that character was the most important commodity in finance, the committee worried more about chicanery and stock manipulations. When Morgan and other bankers claimed that they had a duty to sit on corporate boards, members of the committee found conflicts of interest and abuses of power.

Concern about the activities of investment bankers merged with a parallel debate over the structure of the banking industry as a whole. The Pujo investigation served only to confirm the popular view that there was an inordinate concentration of financial authority on Wall Street, where what had become the nation's large money-center banks exercised substantial influence over the nation's supply of credit. It was true that New York City was the mecca of investment banking (see table 1), and so it was assumed that Wall Street also somehow controlled the nation's monetary assets. How could it be explained that, despite all the traditional ideological and legal

Table 1. CONCENTRATION OF U.S. INVESTMENT BANKS (INCLUDING BRANCH OFFICES) OF MEMBERS OF THE INVESTMENT BANKERS ASSOCIATION OF AMERICA, BY CITY, 1912

City	Number
New York	108
Chicago	65
Philadelphia	31
Boston	23
Baltimore	22
St. Louis	15
Cincinnati	14
33 other cities	93
TOTAL	371

SOURCE: Vincent Carosso, *Investment Banking in America* (1971).

constraints on the power of bankers, a few New York banks had achieved so much size and power?

J. P. Morgan & Company offered a simple historical explanation of this situation. It was, they claimed, "not due to the purposes and activities of men, but primarily to the operation of our antiquated banking system which automatically compels interior banks to concentrate in New York hundreds of millions of dollars of reserve funds." It was, moreover, quite natural for "every country [to] create some one city as the great financial center." On the other hand, concerns about the concentration of funds in New York were overblown if one looked at the trend. The banking resources of New York City as a proportion of those of the United States had been declining since the turn of the century, from 23.2 percent in 1900 to 18.9 percent in 1912. Moreover, New York's largest banks were "far inferior in size to banks in the commercial capitals of much smaller countries," especially those in England, France, and Germany.

Debates over the existence of a Money Trust and its implications for the nation's banking system raged on through 1912. A year earlier, the *Wall Street Journal* had wryly suggested that if no Money Trust could be proven to exist, then one should be established right away, if only to provide an even stronger central monetary authority over the fragmented banking system of the United States. Pointing toward "the community of interest among banks" in European countries, the *Journal* echoed the sentiments of those who longed for greater rationality in the management of credit across the twenty thousand or so banks that dotted the U.S. countryside. (This was an astonishing number to Europeans, whose banking systems were far more centralized around a few large institutions.)

left to their own devices, unregulated banks would be reckless with their credit, drive themselves into insolvency, and disrupt the efficient workings of the business economy. What was needed was more, not less, coordination in the industry.

Even the most benign explanations of how the great banks functioned and how New York had emerged as a center of finance were offensive to the traditionally power-averse sensibilities of the decentralized American body politic. Perhaps nothing so irritated ordinary citizens and populist members of Congress as the huge fees the great bankers took for their trouble. The percentages that investment bankers, in particular, plucked from the stream of corporate deals and government underwritings translated into immense personal incomes. Bankers, then as now, defended their fees as adequate compensation for the underwriting risks they assumed (even in routine cases where little risk was apparent). High fees were justified, too, by the need to attract, hold, and compensate the talents required to execute complex financial transactions (even when those talents were recruited entirely on the basis of blood and friendship). The best of the talent pool were the rare bankers who were probably worth every penny they made, persons who could not only execute sound financial deals but also provide the warranty of their worth. Speaking of his senior partner, George W. Perkins offered the Pujo committee a compelling explanation of why Morgan's seemingly privileged control of information was both right and good. Morgan had earned his position by dint of hard work, having "lived an earnest and tremendously strenuous life in the study of these questions for half a century." Thus, "if J. Pierpont Morgan should make a bond issue from the desert of Sahara and put his name on it, it would be subscribed . . . and the people [who] have bought and bought securities that his name has been put to . . . have believed that they have come out all right."

That investors in securities should come out all right was indeed a matter of the confidence one could place in men like Morgan. Investors of any kind had to rely on their trust in men who controlled virtually all the information about assets and liabilities. When grilled by Untermyer during the Pujo hearings, George F. Baker was adamant that even banks should not be forced to disclose details about their assets and liabilities. Under such conditions, he said, "business would come to a standstill." When asked why the public should "do business on confidence when it can get the facts," Baker simply responded that "the fundamental principle of banking . . . is credit," which in his thinking was a moral, not a legal or regulatory matter.

To the Pujo committee, the fundamental principle—and problem—was power. Published in 1913, the committee's majority report identified "an established and well-defined community of interest between a few leaders of finance, created and held together through stock ownership, interlocking directorates, partnership and joint account transactions, and other forms of domination over banks, trust companies, railroads, and public service and industrial corporations, which has resulted in great and rapidly growing concentration of the control of money and credit in the hands of these few men." Louis Brandeis, himself a powerful corporate attorney and adviser to President Woodrow Wilson, followed with the publication of "Other People's Money." It appeared as a series of magazine installments (later gathered into a book), which condemned the nation's moneyed oligarchy and warned the public of the perils of big business, the evils of interlocking directorates, and the crass spectacle of greedy financiers who operated in secrecy and who took large underwriting fees while contributing little to the welfare of society. Such sentiments would reverberate throughout the twentieth century. Indeed, Brandeis's choice of title would become a staple of the popular, ironic jargon of Wall Street and was eventually coopted by the author of a popular play (later movie) that dramatized the excesses of Wall Street in the 1980s.

SECURITIES INDUSTRY STRUCTURE FROM PUJO TO THE DEPRESSION

By the time "Other People's Money" hit the newsstands in the summer of 1913, the apparent power of the then leading investment houses over corporate governance was already diminishing. In the glare of the Pujo hearings, the great bankers decided that it was the better part of valor to reduce their participation on corporate boards and to forgo attempts to take equity control of the businesses they financed. Thereafter, bankers on the boards of directors of major, complex corporations were fewer in number and, as outside directors, were increasingly less able to shape the decisions of professional managers. Other trends contributed to this outcome. As corporations grew larger and more complex, bankers could do little but acquiesce in the administrative and technical expertise of the more expert managers. Once established, moreover, well-run corporations were able to generate relatively more of the capital funds they required from retained earnings, which further reduced the bankers' leverage.

Thus after 1912, management enjoyed increasing freedom not only from owners but from bankers, as well. For better or worse, financial capitalism ceased to be a major factor in corporate governance. For decades to come, investment houses would forgo many opportunities for major equity participation in large companies, reflecting their lack of desire to absorb public criticism for a governing role they could not in any case play all that effectively.

At the same time, the apparent grip that the few great banking houses at the pinnacle of the capital markets had on the largest securities transactions was also proving to be tenuous. The reasons for this have to do with the inherently dynamic and unstable nature of the institutions that perform capital market functions.

At every stage of its history, the securities industry has been organized like a pyramid, with a few major underwriters at the top of a broadening base of both general and specialized service providers. Yet at no time has the structure of the industry or the position of firms in the competitive hierarchy been static. Particular institutions have waxed and waned in importance. Over the years, many have disappeared through mergers, others have changed their names and services, and still others have fallen into ruin, sometimes with sudden speed. Because so much of the securities business relied on particular personalities with highly specialized connections for generating business or specialized skills for executing business, the departure of key personnel could often drastically weaken a once prominent firm. Even during the brief span of the Pujo hearings, the particular group of firms at the top could not even begin to control competition in every market. The mass of small manufacturers and retailers, for example, along with municipalities and public utilities, relied mostly on regional securities underwriters and distributors, which were increasing rapidly in their numbers during this period.

In addition, the larger structural configuration within which the capital markets operated was changing profoundly. By 1913, commercial banks were insinuating themselves more aggressively into the flotation of new securities, setting up bond departments and investment banking affiliates through which they recycled corporate and individual deposits into the capital markets. This trend accelerated after World War I, when, as business profits took off, corporations turned increasingly to the securities markets for short-term as well as long-term investments, thus reducing their traditional dependency on short-term bank loans and their use of demand deposits. Even trust companies joined the fray. There emerged "full-service banks," the best model of which was the National City Bank of New York, which by the late 1920s had joined its commercial banking with the provision of trust services and the underwriting and distribution of securities on a mass scale. By 1930, almost half the new securities issues in the United States were originated by commercial banks or their affiliates, and they had become the most important factors in distribution.

Another stimulus to these institutional developments was a broadening of the demographic base of investors. Industrialization had led to rising prosperity at all levels of society. After World War I, wealth in the United States was distributed broadly, and even ordinary wage earners were able to generate savings. More people than ever were investing in stocks and bonds, their access to such instruments facilitated by new vehicles for tapping even small-scale savings. The government bond drives of World War I, an echo of Jay Cooke's campaign of half a century earlier, introduced multitudes of wage earners to the possibility of increasing their wealth through direct financial investment. When the war was over and the government reduced its debt, Wall Street institutions, some of which began to tout themselves, tellingly, as "financial department stores," developed new methods of attracting savings and financial business. During the prosperous 1920s, finance was progressively democratized in all major arenas, all the way from stock and bond investment to consumer credit. Individual investors entered the market in unprecedented numbers, with a growing desire, whetted by broadly successful issues of wartime industries, to get rich via securities, including common stocks. In the decade following the war, total corporate securities issues tripled, reaching $9.4 billion in 1929, the year when the New York Stock Exchange enjoyed its first billion-share year in trading. One year earlier, the total value of stock issues in the United States exceeded that of debt for the first time.

Thus by the 1920s, the securities markets were no longer arenas in which only the elite, moneyed classes of society risked their capital. The swelling appetite of ever larger numbers of investors for securities was fed by the rapid growth in investment firms around the country; by 1929, at least thirty-three cities had fifteen or more investment firms. Particularly important in spurring demand were the mass marketing activities of the investment affiliates of commercial banks and the growth of two other vehicles that became widely popular channels for investment in the Roaring Twenties: investment trusts and public utility holding companies. Investment trusts were sponsored by investment banks, commercial banks, investment consultants and trustees, and professional managers. Investors bought securities of the trust increasingly on credit through call loans, the risks of which were presumably reduced by the diversified basket of stocks and bonds in which the trust was invested. By 1929, there were 770 investment trusts with more than $7 billion in assets. They could make money by underwriting and distributing their own securities and also by managing their investment portfolios. And they became important receptacles for the new flotations of investment bankers.

Some public utility holding companies were organized as affiliates of engineering and electrical firms, but most, after 1920, were organized by profit-seeking investment promoters. These holding companies were largely responsible for the nation's second merger wave, which was driven by the consolidation of electrical utilities between 1923 and 1930, as the prices of utility stocks, once considered extremely risky, surpassed those of railroads. Like investment trusts, they had pyramiding features, and in some hands they were used to organize complicated, interlocking networks of ownership. Samuel Insull of Chicago created a far-flung, albeit shaky, nationwide empire of utilities that had an astonishing $2.5 billion in assets by 1930.

Inevitably, the growth of financial markets during the 1920s drew in new financiers who disregarded (if they ever knew) the codes of conduct and lacked the sense of responsibility of the great financiers of the era of financial capitalism before the war. The new, popular investment vehicles were subject to enormous abuses, through intra-holding company underwritings, through the flotation of excessively large securities issues, and through outright self-dealing, manipulation, and fraud. The general tendency of bank affiliates, utility holding companies, and investment trusts to promote and float securities without the kind of close, critical scrutiny that had been the hallmark of the great prewar investment bankers, boded ill for the country.

THE ONSET OF REGULATION

It was inevitable under such conditions that third-party—in this case, government—regulation would emerge. An institution such as National City Bank might bring the various functions of commercial and investment banking under one corporate roof, but the industry as a whole was becoming ever more fragmented, both functionally and geographically. The differentiation of investment vehicles and the broadening of participation in them by the general public posed an even more fundamental problem. It was no longer just the concentration of financial power but also its potential for widespread abuse on an ever larger scale that was important. The remedy was to establish conditions for making available more and better information so that investors could make informed decisions. J. P. Morgan saw it coming. Shortly before he died in 1913, he warned of the day "when all business will have to be done with glass pockets." At the time, there was no federal regulation of the securities market beyond the fraud provisions of the postal laws (which, to this day, remain a potent weapon in litigating securities cases). It would take another twenty years before anything like uniform standards of disclosure would be legislated into the capital markets, but regulation was aborning, nonetheless.

As noted, the Pujo hearings had important effects, but they had little immediate impact on the legal or formal regulatory framework within which the capital markets operated. The committee's recommendations to place the stock exchanges under tighter controls and to bring full disclosure standards to securities offerings came to naught, as did proposals to have the Interstate Commerce Commission supervise securities issues of railroads and to prevent interstate corporations from appointing sole agents for securities issues and from depositing their funds in private banks. Congress also ignored a recommendation that national banks be prohibited from underwriting and selling securities and that their officers be barred from participating in syndicates along with a host of other restrictions. The one arguably direct effect of Pujo on federal law was the Clayton Antitrust Act of 1914, which made it illegal for corporations to acquire stock in companies to the "substantial" detriment of competition. The act prohibited common carriers from having securities dealings with financial institutions with which they had interlocking officers or directors, and it outlawed the interlocking directorates of banks and trust companies. The atmosphere surrounding the Pujo hearings influenced the final outcome of legislation that established the Federal Reserve System. Fears of the Money Trust were partly rooted in the memory of the banking panic of 1907, a crisis resolved by the joint action of J. P. Morgan and the other money center bankers of New York, who had calmed the panic through carefully calculated shifts of pooled reserve funds to vulnerable institutions. That the nation would have to rely on the good graces of a few bankers to resolve such emergencies was enough to overcome generations of resistance to the alternative of lodging monetary authority in a central bank. But the new Federal Reserve System was itself shaped by the durable principle of federalism and the undying hostility toward private monopoly power. Congress established the system in 1913 as a decentralized organization of twelve regional banks. The intent was to prevent any further concentration of financial power in the Northeast. Unlike its early-nineteenth-century ancestors, the Federal Reserve System was constituted far more as a public than a private institution. The regional Federal Reserve banks were nominally owned by the institutions they regulated, but their oversight was effectively controlled by the government. So also was the income they earned.

The effects of the decentralized structure were as ironic as they were unintended. One immediate consequence was to help liberate the major commercial banks from their traditional conservatism. The system would have only a limited effect on the stability of most of the banks in the country, until reforms in the 1930s established a centralized board with more explicit authority over the regional branches. In the meantime, the New York branch inevitably became the most powerful and did much to advance the private interests of the money center bankers. Providing the money center banks with a lender of last resort lowered the risks of entering into the more speculative investment activities of the capital markets. A parallel consequence was that the great Wall Street financiers, stung by the attentions and allegations of the Pujo investigation, could simply retreat to lower-profile positions in public affairs. They could justifiably abdicate their responsibility for overall financial stability to the publicly controlled Federal Reserve System.

Until the Great Depression, the federal government made little attempt to involve itself in the regulation of the nation's financial markets. Government intervention came first at the state level, where attempts to penetrate the fortress of secrecy that had long surrounded the sale of securities made some headway. Perhaps inspired by the English Companies Act of 1900, which had been designed to foil those who "would sell building lots in the blue sky in fee simple," American states began crafting notification legislation to compel better disclosure of assets underlying the issue and sale of stocks and bonds. The various acts passed to this end became known collectively as blue-sky laws. In 1911, Kansas enacted a comprehensive system for registering securities and licensing investment bankers, brokers, and dealers and established an agency to enforce the laws requiring issuers of securities to file detailed financial statements on their businesses. The Kansas bank commissioner's power to approve or deny securities issues at his discretion was a radical principle, unprecedented in Anglo-American law.

Despite some early rulings by federal courts that such laws unduly interfered with individual freedoms and overburdened interstate commerce, the Supreme Court ruled, in 1917, that the states possessed the police power to enact legislation "to prevent fraud and imposition" in the securities markets within their borders. The Kansas law set in motion a series of like legislation, so that by 1933, only Nevada lacked a blue-sky law. The laws generally sought to prevent fraud at the time securities were issued by establishing registration and licensing procedures for securities and for the people dealing in them, and by setting penalties for violations. In 1921, New York made such penalties enforceable when the legislature empowered the attorney general to issue subpoenas and to seek injunctions against persons suspected of fraudulent dealings in securities.

Yet such state regulation had little impact on the basic structural characteristics of the capital markets with one notable exception: in 1905, the New York legislature's Armstrong committee investigation had revealed serious conflicts of interest among investment banks, their affiliated trust companies, and insurance companies, on whose boards investment bankers sat. Legislation was then enacted that prohibited life insurance companies from underwriting securities and from investing in corporate stock and collateral trust bonds. Seventeen states followed suit in 1908.

The blue-sky laws were basically flawed by their lack of uniformity from state to state—they varied greatly in provisions, effectiveness, and reach. Internal borders, after all, did not bound the nation's capital markets. The Investment Bankers Association (IBA), organized in 1912 to promote the ethical standards as well as the political and economic interests of the profession, lobbied for some form of national securities regulation that would bring order out of the apparent chaos created by state laws. This movement reflected a broader trend in which professionals in all walks of life promoted legal and bureaucratic solutions to national problems through "progressive" government, particularly at the federal level. The public's preference for decentralized federalism over nationalism, however, made the imposition of uniform standards from the top politically infeasible. The IBA, which represented the one interest group with the least political credibility in the matter of securities fraud, thus failed in its effort.

Other sectors of business certainly did not manifest support for national securities regulation. The executives of large corporations, in particular, had little to gain by inviting closer scrutiny of their companies' finances. As they became less powerful in the boardroom, bankers became ever more dependent upon good relations with their clients for business, relations that were based on a gentlemen's code of confidence. Corporate financial information thus continued to be jealously guarded by corporate managers and bankers alike. It was not until the Great Depression brought such overwhelming discredit to the workings of the capital markets that it became possible to establish a political consensus for national securities regulation. Only then would solid information on which valuations of the country's major corporations could be reasonably based be liberated from the executive suite.

NEW DEAL FINANCIAL REFORMS

Although Congress had been studying the country's banking problems as they developed during the first years of the 1930s, it was Herbert Hoover who launched the process of capital market reform in 1932. It was the worst year of the Great Depression, which was inseparably, if tenuously, linked to the trauma of the 1929 stock market crash, the lingering symbol of both the previous excesses and the subsequent failures of America's financial system. Warned by conservative colleagues that financiers friendly to the Democrats might try to embarrass him and damage his 1932 reelection prospects by means of short-selling bear raids on Wall Street, the Republican president issued a preemptive call for a Senate investigation of stock market practices. The Gray-Pecora investigation, so called for two of the Senate subcommittee counsels who led it, lasted for two years. Its most damaging revelations came under counsel Ferdinand Pecora during 1933 and 1934, after Hoover had already been soundly defeated for reelection by Franklin D. Roosevelt.

The Senate investigation documented what were taken to be numerous cases of financial incompetence, manipulation, fraud, and self-dealing on the part of leading financiers and financial institutions. The Gray-Pecora hearings were rife with stories about how Wall Street bankers were either duped by or had swindled their clients. In reality, the investigation uncovered little in the way of substantively illegal transgressions, but the effect of the hearings on public opinion was enormous. The nation's leading financiers began to look as inept as they were imagined to be corrupt. Charles Mitchell, head of National City Bank (then the world's largest bank) and its affiliate, National City Company, resigned during the hearings shortly after his testimony fostered allegations of his and his companies' numerous ethical transgressions, some of which appeared to border on criminality. Mitchell, humiliated, became a popular personification of financial irresponsibility, a dubious distinction he would share with many others as the decade wore on. The nation's leading financial men were rightly or wrongly scapegoated for the nation's economic ills. Great trials were held following indictments of such luminaries as the former president of the New York Stock Exchange, Richard Whitney, and the former secretary of the treasury, Andrew Mellon. Mellon escaped conviction on flimsy tax-evasion charges, but Whitney was another matter. He was convicted and jailed for having systematically embezzled from his own clients, from his yacht club, and even from the emergency gratuity fund of members of the exchange.

It was all too much for even those who had profited from the system that had fallen into disrepute. The rout of the financiers spilled over to help discredit the entire leadership of the business community. As Joseph P. Kennedy, the first chairman of the Securities and Exchange Commission, reflected on the debacle: "The belief that those in control of the corporate life of America were motivated by honesty and ideals of honorable conduct was completely shattered."

The growing litany of disclosures about corruption on Wall Street led to a renewed attempt at securities market reform on a broad front. Average citizens who had gone into the markets only to lose their money were infuriated. They had in increasing numbers committed their capital to now discredited financial fiduciaries based on scant information. What Gray-Pecora seemed to say to them was that those who controlled the information had been abusing their privileged access to it, and now everyone was paying a terrible and protracted price. Thus, amid the general banking and financial collapse and the political realignment symbolized by Roosevelt's election, it became politically feasible for the first time in history to enact securities market laws at the federal level. Under the new regime, the public could no longer be left to suffer what had once been represented to it as ordinary risk.

The New Deal would take a more paternalistic view of securities regulation and of finance in general. Most of the thinking about how to constrain the activities of financial institutions was directed toward solving the time-worn problem of the control of information. During the New Deal's first "hundred days" of legislative frenzy came the Securities Act and the Banking (Glass-Steagall) Act of 1933. The first of these required new securities offerings to be registered with the Federal Trade Commission (after 1934, with the new Securities and Exchange Commission). Issuers of new securities were required to provide prospectuses containing sufficient information from registration statements to allow potential investors to judge the value of the offerings. Issuers also had to complete registration and disclosure of new securities twenty days before they could be sold. Failure to comply entailed substantial civil liabilities.

This "truth-in-securities" act was essentially a federalization of the more stringent state blue-sky laws. It was both a response to and, in time, a promoter of the democratization of capital markets. During the 1920s, more and more bankers pursued mass marketing strategies with none of the sense of fiduciary responsibility that the elite bankers had once provided to a limited number of wealthy clients. The New Deal securities laws, by making underwriters as liable as issuing corporations for providing information to would-be investors, shifted the traditional favor of the law from issuer to shareholder and creditor interests.

To prevent conflicts of interest that might arise from combining different financial functions under one roof, the Glass-Steagall Act legislated a full separation of commercial from investment banking, and prohibited affiliations and interlocking directorships between commercial and investment banks. Banks could now either take deposits and make loans or engage in the origination and distribution of corporate securities, but not both. Commercial banks simply divested themselves of their securities affiliates, which then either went out of existence or reorganized as separate securities firms. As for the private banks, most chose to remain in the securities business. J. P. Morgan & Company, which had been the explicit political target of what was actually a "surprise last-minute insertion in the bill," opted for commercial banking, prompting some of its partners to resign and form the Morgan Stanley investment bank.

Other provisions of Glass-Steagall provided for federal deposit insurance—which for years was regarded by economists as the most significant contribution of the law—and for federal regulation of the maximum interest rates that banks could pay on deposits (zero in the case of demand deposits). President Roosevelt had been opposed to deposit insurance, thinking that it would do little more than prop up inefficient small banks. Senator Carter Glass was opposed to it as well; his alternative was more branch banking. But unit (one-office) bankers, championed by Congressman Henry Steagall, regarded deposit insurance as a way of protecting themselves against the loosening of restrictions on branch banking, which they loathed. In the end, Glass achieved his main objective, the separation of commercial and investment banking, as well as a slight relaxation of restrictions on branch banking. And Steagall achieved his goal of near-universal deposit insurance. As for the ceilings on interest rates, they were intended to curb a supposed tendency of banks to take excessive lending risks under more competitive pricing conditions. (Curbing rates also served to reduce bankers' costs, which helped offset the increased costs of deposit insurance.)

Its supporters touted Glass-Steagall as a measure that would cure the most "obvious" financial transgressions of the time: the overspeculation and excessive risk taking that led to the Great Crash and subsequent bank failures, the apparent conflicts of interest between commercial and investment banking functions, and the flagrant abuses of fiduciary responsibilities by financiers. But the sentiments underpinning Glass-Steagall ran deeper than that. By further fragmenting financial institutions and functions, Glass-Steagall harked back to the banking controversies of the earliest decades of the American Republic. It was an echo of the continuing suspicion of concentrated financial and economic power that was manifest from those decades right down through the Pujo investigation. The specific legislative intent of the act reflected this strain of American ideology far more than any sense of newfound pragmatism about structural reform.

A year later, in 1934, the Securities Exchange Act extended the registration and full disclosure requirements to all securities already listed on stock exchanges. Those corporations whose securities were traded on exchanges were now required to register and to file annual financial reports on their operations and quarterly earnings statements. This caused a quantum improvement in the quantity and quality of information made available to the investing public, and established a need for what would become a thickly populated profession of independent corporate auditors. Information on pending shifts of corporate control was also to become public in more

Table 2. KEY TWENTIETH-CENTURY SECURITIES-INDUSTRY REGULATORY LEGISLATION

Title	Year	Description
Kansas Blue-Sky Law	1911	The first blue-sky law: Kansas enacts a comprehensive system of licensing for the registration of securities salesmen.
Martin Act (New York)	1921	Empowered state attorney general to investigate fraudulent securities practices and to issue subpoenas and seek injunctions against suspects.
Securities Act	1933	The first federal government regulation of the securities market. Required registration of securities offerings with the Federal Trade Commission and detailed public disclosure of material financial information about issuers.
Glass-Steagall Act	1933	Required separation of investment banking (securities underwriting) from commercial banking (acceptance of deposits and lending) functions.
Securities Exchange Act	1934	Established the Securities and Exchange Commission (SEC) and required exchanges to submit rules for SEC approval. Also required companies with existing securities to disclose detailed financial information to the public.
Public Utility Holding Company Act	1935	Enabled SEC to supervise dissolutions, breakups, integrations, and capital restructurings of public utilities.
Maloney Act	1938	Authorized formation of National Association of Securities Dealers under the auspices of the SEC to oversee activities of broker-dealers in the over-the-counter market.
Trust Indenture Act	1939	Required obligers of bonds to register with SEC.
Investment Company Act	1940	Authorized SEC to oversee investment company activities.
Securities Act Amendments	1964	Required SEC registration of widely held securities and raised certification requirements for brokers.
Williams Act	1968	Required purchasers of equity to announce holdings and intentions within ten days from time accumulations reached 5 percent of a company's stock and to abide by a minimum twenty-business-day period, during which time tender offers would be open for tendering by shareholders.
Securities Investor Protection Act	1970	Established Securities Investor Protection Corporation (SIPC) to insure deposits with brokerage firms.
Employee Retirement Income Security Act	1974	Established Employee Benefit Guaranty Corporation (EBGC) to insure plan beneficiaries against loss from plan termination.
Securities Reform Act	1975	Enabled SEC to establish a national market system and strengthened authority of SEC over exchanges. Ended the practice of fixed commissions by exchanges.

SOURCES: James Burk, *Values in the Marketplace* (1988) (the table closely follow's Burk's format); Thomas McCraw, *Prophets of Regulation* (1984); Roy Smith, *The Money Wars* (1990).

timely fashion. Individuals owning more than 10 percent of a corporation's securities also had to disclose that fact as well as any subsequent transactions in those securities. All these reports and disclosures were to be made to the newly established Securities and Exchange Commission (SEC), which was also empowered to register and monitor the stock exchanges and to enforce a new ban on some manipulative trading practices as well as the regulation of others, such as short-selling.

These three laws, which were enacted within just fifteen months of each other, were the major American capital market reforms of the twentieth century (see table 2). They were soon followed by still more. The Banking Act of 1935 increased the monetary and bank regulatory powers of the Federal Reserve System and extended the Fed's power to regulate margin requirements on loans made to purchase securities. The 1935 Public Utility Holding Company Act, another of the laws directed at fragmenting private financial power, specified that a utility holding company could control only one integrated utility system. Under it, utilities were also subjected to more stringent SEC regulation than nonutilities. The Maloney Act of 1938 established rules for the over-the-counter market, leading to self-regulation by a new National Association of Securities Dealers (NASD) under SEC oversight. In the same year, an amendment to the federal bankruptcy law restricted the role of investment bankers in reorganizations of publicly held companies, an activity in which those bankers had formerly been the leading players.

The power of investment bankers was weakened further in 1939 when the Trust Indenture Act precluded them from serving as trustees for any debt securities they originated. In an earlier era, bankers had felt that it was both their duty and sound business strategy to monitor the securities they had placed. Bondholders would thereby be reassured, the reasoning went, by the bankers' ongoing involvement. But investors had long since become too suspicious of bankers for the latter to continue in that traditional role.

Finally, it was just a matter of time before investment companies (or investment trusts) would fall under regulation. In 1940 the Investment Company Act applied SEC registration and disclosure requirements to investment companies, made their investment policy changes subject to shareholder approval, and placed numerous restrictions on the participation of investment banking houses in investment company affairs. The act also restricted a mutual fund from placing more than 5 percent of its assets in the securities of any one issuer or purchasing more than 10 percent of a corporation's shares. The former provision helped ensure that the investment company would achieve portfolio diversification, and the latter prevented the investment company from having anything close to a controlling position in a corporation whose securities it had purchased. A long-term consequence of this further attenuation of the monitoring function of financial institutions over corporate managers was to diminish the affinity between the small shareholder and the ultimate object of his or her investment.

Taken as a whole, the financial reforms of 1933 to 1940 were the regulatory manifestation of the longstanding ideology opposed to concentrated power. Recall that when the Pujo investigators had pointed, in 1912–1913, to many of the same suspicious practices that would be aired again two decades later and prescribed specific legislative and structural forms of redress, little was done to implement the recommendations. During the financial collapse and Great Depression of the 1930s, however, when forced to choose between the "evils" of high finance and big government, Americans opted for the latter. That this would be the case was evident in many statements made at the time, perhaps none so telling as that of Franklin Roosevelt, writing in 1933. "The real truth," he said, "is . . . that a financial element in the larger centers has owned the Government ever since the days of Andrew Jackson. . . . The country is going through a repetition of Jackson's fight with the Bank of the United States—only on a far bigger and broader basis." The problems addressed by the New Deal reformers, in other words, were old, familiar ones, rooted in the folklore of American politics. What had changed as a result of the economic and financial debacle of the Depression and of the exposure of fiduciary abuses in high places was the prospect of using the government to do something about them.

Thus in the 1930s, the lingering impulses of Pujo were finally translated into formal regulation in ways that exceeded anything contemplated up to that time by serious politicians. By the time the New Dealers were through, the institutions and markets of the nation's major private financial powers were embarrassed, divided up, controlled, and fundamentally altered. In the process of regulatory reform, however, the informational basis of capital market decision making was enlarged and made increasingly available to all investors by means of public disclosure of what had formerly been the privileged intelligence of corporate managers, bankers, and others to whom the managers and bankers had granted access. Two New Deal legacies—more fragmentation of finance and more information for investors—would pose new sets of problems for the capital markets and corporate boardrooms over the next half century.

TNEC AND ANTITRUST: WANING OF THE NEW DEAL FERVOR

In the wake of the New Deal reforms, the practices of investment bankers and big business in general continued to be subjected to governmental scrutiny. Political considerations were paramount in the continuing debate over the size and power of institutions in the private sector of the economy. In 1937–1938, a steep recession interrupted the economic recovery of Franklin Roosevelt's first term in office. Although later analyses of the 1937–1938 contraction established that government policies, especially the monetary policies of the Federal Reserve and the U.S. Treasury, were largely responsible for the decline, New Dealers laid the problem at the feet of big business and finance. It was they who had allegedly abused their monopoly powers to engineer the recession as a way to discredit the New Deal reforms and embarrass the administration. The president requested yet another investigation aimed at the "problem" of concentrated economic power. Congress established the Temporary National Economic Committee (TNEC), which for two years heard volumes of testimony on the structure and competitive practices of the nation's major industries.

Wall Street, possibly because it already had been thoroughly investigated and legislated into reform, received only a small part of the TNEC's attention. The brief investigation of investment banking rehashed old complaints about too much concentration in the field and debated the pros and cons of bankers serving on the boards of corporations whose securities they sold. On the other hand, the hearings devoted some discussion to what was now seen as a weakening of Wall Street's power, a consequence in part of the growing importance of "private placements" of security issues, by which a corporation could directly issue a security to insurance companies or other institutional buyers without going through the intermediation of investment bankers. Bankers argued that this development had resulted from inconveniences and risks created by SEC registration requirements; others deemed it to be evidence of the maturing of corporations who simply no longer needed banker sponsorship of their issues.

One issue aired during the TNEC investigation was that of the role of the "traditional" or "relationship" banker, the individual or institutional financier who had a longstanding relationship with a corporation, who served as its financial adviser, and who marketed the corporation's securities. This last function was normally carried out at negotiated rather than bid prices. New Deal critics viewed negotiated prices as just more evidence of abiding banker domination of corporations, of Wall Street's intractable hold over the nation's economic life. When critics argued that bankers were simply using their financial power to carve out spheres of influence by fixing prices, bankers reasoned that their relationships with their clients were the logical outcome of competition, reflecting their corporate customers' desire for stability, continuity, and responsibility. The traditional bankers, in other words, viewed their relationships with companies in much the same way a doctor might view the relationship with a patient, or an attorney with a client.

The TNEC did not settle the issue of negotiated versus competitive bids. The issue was to be debated until the Justice Department tried to settle it after World War II, when it instituted an antitrust suit against seventeen leading investment banks on charges of monopolization and conspiracy to restrain trade. The case, which was launched in 1947, droned on for six years, when Judge Harold Medina dismissed the government's charges for lack of evidence. The dismissal decisively "shattered the old myth of a Wall Street monopoly," as Vincent Carosso noted, and helped to transform the image of the investment banker into a more benign figure of authority. The entire case, moreover, had been remarkably irrelevant. By the 1950s, the investment banker wielded far less power in the nation's finances and economy than had been the case a generation earlier.

And yet, ancient and enduring suspicions about the power and privilege of Wall Street financiers would continue to hover in the ether of American ideology, only to manifest themselves again and again in the courts and in the political arena.

THE RISE OF INSTITUTIONAL INVESTORS

Public disclosure requirements vastly increased the amount of information available to capital market participants. Consider, again, the matter from the perspective of the heyday of financial capitalism, when managers and financiers kept tight control over financial information for business-strategic as well as self-interested reasons. In the more ruthlessly Darwinian business environment of the turn of the century, tight control of information could be seen to confer and protect crucial life-and-death advantages. On the other hand, who would buy the securities that corporations and bankers desired to sell if there was little or no basis for judging their worth? We have noted that financial capitalism's solution to the problem of asymmetric information—when the issuer and underwriter of securities knew much more about their worth than did the ultimate purchaser—was the integrity, the credibility, and the reputation of the intermediary. Why else were the senior Morgan partners, Jacob Schiff of Kuhn, Loeb, George F. Baker of First National, James Stillman of National City, and others like them around the turn of the century, the acknowledged titans of American finance? It was because they possessed and controlled the information relevant to their businesses. They used it, in most cases, according to the doctrine that they were working for the benefit of their clients, whether the clients were corporations issuing securities or investors who bought them.

The history of financial capitalism has in recent years inspired serious reevaluations of, as well as nostalgic longings for, the days of such paternalistic banking. It must be made clear, however, that Wall Street in the age of J. P. Morgan was hardly a democracy of money, and this is what so deeply disturbed basic American assumptions about power. Although the capital markets already had many more participants than the small group of financial titans and their usually well-to-do corporate and individual clients, small investors were left to speculate without much information. They could only try to figure out what those who controlled the information were planning or attempting to do, and then observe after the fact what the informed operators had done. This was at best second-order information, and most speculative information was of an even lower order. One might try, for example, to guess from what some speculators were doing the information they must have obtained or thought they had obtained from those who really controlled it.

Rising prosperity generated more interest and participation among ordinary citizens in the Wall Street markets. Still, most Americans saved and invested in simpler ways closer to home, for example in bank and thrift institution deposits.

Those investors who did enter the markets developed certain precepts or rules of investment applicable to a world of limited information on corporate affairs and in the absence of what later would be called security analysis. Government securities were the safest of all, because governments had powers to tax, as well as political and economic incentives, to maintain their credit. Corporate security values were best based, it was thought in the wisdom of that era, on tangible property values standing behind the securities. That is why the safest corporate securities were mortgage bonds secured by specific properties as collateral. Next came debentures based on the general credit of the enterprise. Then came preferred stocks with their set dividends and senior claims to common stock future net earnings if those dividends could not be paid. Lowest in the pecking order of investment values were common stocks, pure speculations on whatever residual earnings might be left to pay dividends or to be reinvested in the enterprise after bond, debenture, and preferred shareholders received their promised payments. This sort of analysis of common stock values inevitably led to charges of stock watering when bankers and promoters merged and recapitalized corporations around the turn of the century.

In the 1920s, a more modern approach to investment values—one that looked more at earnings than assets—began to take firm root in the minds of investors. What had been grasped intuitively by some bankers was now being established more firmly in the literature. For example, after analyzing the limited historical records of stock prices, dividends, and corporate earnings that existed at the time, Edgar L. Smith, in a 1923 book and related articles, demonstrated that common stocks had generated greater long-term investment returns than bonds. This finding attracted considerable interest in the later 1920s, when it became clearer that corporate earnings indeed had the predicted strong relationship to dividends and stock prices.

During the 1930s the insight linking corporate earnings, dividends, and stock prices was refined to the theory, which remains generally accepted today, that a stock is worth the present discounted value of its future dividends (including its value when liquidated). Current and past earnings and dividends might therefore be relevant for estimates of future earnings and dividends, and offer some basis for the elusive problem of valuing common stocks. But, in the 1920s, as these ideas were first formulated and tested in limited ways, corporations still did not normally release information on their financial results. These informational shortcomings could foster fiduciary abuses, as the events of the later 1920s and early 1930s demonstrated.

It was only with the securities acts of the 1930s that the informational situation in capital markets was decisively altered, opening the door to a true democratization of the markets. By making more financial information available to everyone, a fundamental change occurred in the capital markets. Although far from perfect in application, the new reigning principle was that financial information, as it reflected the performance of public corporations, was no longer the domain of a small circle of bankers and their corporate clients. It was no longer reasonable to argue that bankers and corporations had a right to guard closely and control information pertinent to investment values based on Darwinian notions of competition and earned privilege.

Standardization in reporting also contributed to the democratization of information. Since the information to be made public was prescribed by the New Deal securities laws, monitored by a third-party regulatory agency (the SEC), and subjected to increasing regularization through standard accounting procedures, it could be made reliable and comparable across corporations. In response to the regulatory demand for increased information, the accounting profession mushroomed. In response to its availability, a new profession of securities analysis appeared. Retail brokerage firms—Merrill Lynch was the pioneer—employed securities analysts to prepare research reports on companies and security values for distribution at no charge to investors. Greater availability and reliability of information also led to the rating of securities by various criteria; such firms as Moody, and Standard and Poor were leaders in this field.

More important, institutional investors—insurance, investment, and trust companies as well as the newly emerging pension funds, which had diversification and economies-of-scale advantages in gathering and acting on information compared to individual investors—began to employ security analysts. And as the availability of information led institutions to increase their interest in common stock investments, the techniques for gathering information that their analysts employed over time became known generally. Scholarly and popular books on securities analysis and investment principles proliferated, as did formal and informal courses of study on these subjects. All of this reinforced the broader tendency toward democratization of the capital markets that was already underway.

Institutional investors, however, had to overcome restrictions that had been placed on their participation in the capital markets. Some were self-imposed. Traditionally, various types of banks, trust and insurance companies, pension funds (a relatively new institution in the 1930s), and investment companies had specialized in "safe and secure" bonds. This preference was often reinforced by the charters and laws under which they operated. For example, there were legal precepts and provisions preventing institutional investors from investing in stocks. For decades, state governments had been issuing legal investment lists for trustees and prohibiting certain kinds of stock investments by certain kinds of institutions, such as insurance companies. Such precepts and prohibitions were not controversial at the time they were developed. Given the limited information available and the obvious risks of investing in stocks as compared to bonds, no prudent investor of other people's money could justify putting very much of it into stocks. That, too, changed during and after the 1930s when more information on corporate finances and historical stock returns became available, when abusive stock exchange trading practices had been banned, and when interest rates and bond yields had sunk to all-time lows in American history, making stock investments relatively more attractive. By the early 1950s, trustees and institutions in state after state had sought, successfully in most instances, to broaden their allowable investments to include common stocks. By the 1960s, as stock market values continued to advance, the idea grew that it was imprudent for institutional and individual investors not to have at least some stocks in their asset portfolios.

During the prosperous post–World War II years the assets of financial institutions grew rapidly, and increasing proportions of these assets found their way into the stock market. The institutionalization of the market can be measured in different ways. Because of Glass-Steagall and other banking regulations, depository institutions have had a minimal role in the market; these institutions were and still are precluded from owning much, if any, corporate stock. The institutions that transformed U.S. equity markets after mid-century were nonbank, nondepository financial enterprises: life and general insurance companies, and especially private and public pension funds and open-end investment companies (mutual funds). Around 1950, these institutions held less than 20 percent of corporate equity, with the rest in the hands of U.S. households (mainly) and foreign owners. The institutional percentage rose to about 25 percent in the 1950s and remained around that level during the 1960s and 1970s, a period when soaring interest rates depressed stock prices. During the 1980s, the institutional percentage rose rapidly, reaching 37 percent in 1989. Preliminary estimates indicate that in the early 1990s the institutions, continuing the rapid pace of the 1980s, became the holders of roughly half of all corporate equity.

Within the main institutional categories, the changes in the portion of all corporate equity held from the start of the 1950s to the end of the 1980s were spectacular (see table 3). The greatest increase in institutional participation was in the pension funds, private and public, which owned only about 1 percent of all corporate equity in 1951 but about 25 percent of it in 1989. Next came the open-end mutual funds. The insurance companies over the four decades increased their share of total equity least; legal and regulatory restrictions on their stock investments, although somewhat relaxed, held back the insurance companies in comparison to the pension and mutual funds.

The increase in the institutional share of corporate equity in the 1950s and 1960s, from just under

Table 3. SHARE OF ALL CORPORATE EQUITY HELD BY MAJOR TYPES OF FINANCIAL INSTITUTIONS

Year	Private Pension Funds	State and Local Government Pension Funds	Open-end Investment Companies	Life Insurance Companies	Other Insurance Companies	Totals
1951	0.8	0.0	1.7	1.3	2.3	6.1
1953	5.6	0.4	4.8	1.3	1.7	13.8
1989	17.4	7.4	6.2	3.2	2.6	36.8

SOURCES: Raymond W. Goldsmith, ed., *Institutional Investors and Corporate Stock* (1973); Board of Governors of the Federal Reserve System, *Annual Statistical Digest, 1989* (1991).

20 percent to about 25 percent, was not large compared to what happened after 1980. At the time, however, it began to strain the operating mechanisms of the stock exchanges. As can be seen in table 4, average daily trading volume on the New York Stock Exchange in 1960 was no greater than it had been in 1930, and in the interim it typically had been even lower. Between 1960 and 1965, average daily volume doubled, but even then the average trade was for only a little more than two round lots (100 shares). Then the impact of institutions became apparent. Between 1965 and 1970, the average trade almost doubled in size. More important was the increase in large-block trades, the mark of institutional participation, which soared from 3 percent of volume in 1965 to 15 percent in 1970.

By the late 1960s, these soaring trading volumes and the large-block trades of institutions swamped the capacity of even so august an institution as the New York Stock Exchange. At the time, the structure, rules, and operating procedures of the securities exchanges were throwbacks to an earlier era when individual rather than institutional trading dominated. For example, exchanges still relied on "paper" trades—that is, orders were entered, filled, and cleared by means of slips of paper. By the late 1960s, brokers were failing to settle on trades they had executed, and a number of them went bankrupt.

Congress came to the rescue in 1970 with legislation creating the Securities Investor Protection Corporation (SIPC), in order to insure customer funds placed with brokers in much the way that federal deposit insurance insured funds placed with banks. The SEC, in the meantime, was preparing its *Institutional Investor Study.* Completed in 1971, the study pointed out that many market difficulties were the result of the clash of increased institutional investment with anticompetitive exchange rules and practices, and it called for eliminating the latter.

The most conspicuous anticompetitive practice was the fixed-rate commission structure that the exchanges enforced on stock trading, which became

Table 4. VOLUME OF TRADING ON THE NEW YORK STOCK EXCHANGE, 1900–1990

Year	Average Daily Share Volume, Millions	Average Shares Per Trade, Shares	Share of Large Block Trades, Percent
1900	0.5		
1910	0.6		
1920	0.8		
1930	3.0		
1940	4.0		
1950	2.0		
1960	3.0		
1965	6.2	224	3.1
1970	11.6	388	15.4
1975	18.6	495	16.6
1980	44.9	872	29.2
1985	109.2	1,878	51.7
1990	156.8	2,082	49.6

SOURCE: New York Stock Exchange, *Fact Book, 1991* (1991).

egregiously costly in the new world of institutional investment. Everyone knew that an order for 10,000 shares of a stock was not 100 times as costly to execute as a round lot of 100 shares, but the exchanges resisted changing the age-old fixed-commission arrangement until 1975 when the SEC, acting under pressure from the institutional investors, forced them to abandon the practice in favor of negotiated commissions driven by market forces. Congress endorsed the SEC's action in the Securities Reform Act of the same year, a measure that called for eliminating other anticompetitive practices and for moving toward a national market system of securities trading. These actions were highly stimulating to stock trading, and along with the replacement of paper trading by electronic trading they contributed directly to the huge equity trading volumes after 1975 in securities markets that were increasingly dominated by institutional investors and institutional trades.

AGENCY PROBLEMS IN MANAGERIAL CONTROL

In 1932, a lawyer, Adolf Berle, and an economist, Gardiner Means, collaborated on a seminal book, *The Modern Corporation and Private Property.* In it, the authors considered the implications of the progressive separation of ownership and control in large corporations. They observed that when the owners of an enterprise also managed and controlled it, their interest in maximizing their personal wealth and income was identical to the efficient management of the enterprise. But when ownership was separated from control, this identity of personal and business interests could easily disappear. "If we are to assume that the desire for *personal profit* is the prime force motivating control," Berle and Means wrote, "we must conclude that the interests of control are different from and often radically opposed to those of ownership; that the owners most emphatically will not be served by a profit-seeking controlling group. In the operation of the corporation, the controlling group even if they own a large block of stock, can serve their own pockets better by profiting at the expense of the company than by making profits for it." In short, the modern corporation presented what has come to be known as a principal-agent problem: the agents (the managers) may well have incentives to manage corporations opportunistically in their personal interests rather than in the interests of the principals (the owners). In the bygone world of financial capitalism, the solution to the principal-agent problem was to have bankers ensure that corporate managers were acting in the interests of the creditors and the shareholders to whom the bankers had sold the corporation's securities. But by the 1970s, the bankers had long been in retreat and were unlikely to reassert their power.

The chief beneficiaries of this political reallocation of economic power, aside from the new bureaucrats in government who were charged with carrying out the reforms, were the corporate managers. They benefited from the resolution of a longstanding issue—a gray area in law and practice—concerning whether commercial banks could own corporate stock and possibly exercise some control over the corporations that issued it. The New Deal reforms decided the matter; they could not. Moreover, managerial power was enhanced by the legal fragmentation of banks and other financial institutions and by the fragmentation of the portfolios of institutional investors through explicit restrictions on how much and what kinds of corporate securities the institutions could own. There was a less explicit implication of the reforms that would be continually reiterated: financial institutions were not to gather, and certainly not to exercise, controlling interests in the corporations whose securities they might own.

The result of these written and unwritten rules in the post–World War II era was to free corporate managers from a traditional and potential source of monitoring and discipline—namely, large financial institutions that owned their securities. This created a wide berth for managerial opportunism. The countervailing forces that existed (including those of the revivified and newly organized mass labor movement) were certainly less focused and weaker than control based on financial power. And even within the corporate governance structure, where a board of directors in principle might exercise control by proxy, managers could coopt the process. Managers frequently made themselves directors and for all practical purposes appointed and compensated "outside" directors who often owned relatively little stock in the companies they were directing. Moreover, the size of modern corporations and the wide distribution of their stock militated against the formation of effective disgruntled stockholder coalitions and proxy wars. When such a contest did occur—the 1955 Montgomery Ward proxy war pitting chairman Sewell Avery against outsider Louis Wolfson, for example—it attracted attention mainly because it was an exception rather than the rule. Under such circumstances, stockholders of large corporations were left to express their dissatisfaction with management by selling their shares. Only if large numbers of them

Table 5. INDIVIDUAL SHAREHOLDERS, 1930–1985

Year	Number, Millions	Percent of Population
1930	9–11	7.3–8.9
1947	5.4	3.7
1965	20.1	10.3
1975	25.3	11.9
1985	47.0	20.2

SOURCE: James Burk, *Values in the Marketplace* (1988).

did so in concert would the share price be likely to fall to the point where outside investors would have incentives to take over a corporation and install more effective managers. But even this simple mechanism had been blunted by the New Deal reforms that had further fragmented financial institutions and then restricted them from taking controlling positions in corporations.

Despite the restrictions, financial institutions began to grow by leaps and bounds during the post–World War II era, all the while increasing their holdings of corporate stock. Increased disclosure of corporate information had made stock ownership more attractive to institutions as well as to individuals. Individual participation in the equity markets nearly trebled between World War II and the mid-1960s and more than doubled again in the next twenty years (see table 5). And in any case, during the first two postwar decades (roughly 1945 to 1965), there was little concern in the markets about corporate mismanagement and little notice of the potential for self-aggrandizing behavior by corporate executives. The robust performance of the American economy, which was reflected in the rapidly rising value of corporate equity, redounded to the favor of corporate managers, who were held in high public esteem. This was the era of the Organization Man triumphant, the quiet hero of the "Golden Age" of American corporate enterprise. Other leading industrial economies, those of America's allies as well as its former enemies, had been crippled for so long by depression and war that to get back on their feet they needed what the United States alone had in abundance: capital, technology, and managerial expertise. But as their economies—particularly those of Western Europe and Japan—gradually recovered, chinks in the armor of seemingly invincible American corporations became all too evident.

Serious problems of managerial opportunism became glaringly obvious in the "conglomerate" movement of the 1960s—the third merger wave in American history. A new hybrid strain of corporate financial manager made end runs around antitrust regulations by engineering mergers and acquisitions of companies in unrelated industries. Such mergers were justified on grounds of diversification, synergy, and economies of scope, and some did achieve results in accordance with those precepts. But too much of the activity involved little more than attempts to realize profits through tax loopholes and accounting games. The exploitation of cash flows to build corporate empires that often made no structural sense also "justified" larger managerial salaries and perquisites. This, in turn, helped fuel a long spiral of increases in executive compensation throughout the corporate economy. When many of the more spectacular diversified corporate combines that were created between 1968 and 1972 went awry, because they were either overleveraged or impossible to administer efficiently, they had to be undone piecemeal or wholesale in later years. The problems created by all the restructuring (which often diverted funds from more productive uses) would look even worse when the managers of the nation's "center corporations" were challenged by more efficient global competitors in the late 1970s and 1980s. By the 1980s, American executives came under fire for having underinvested in new technologies, for having failed to address needed labor reforms, and for having ignored their customers' concerns about the cost and quality of goods and services.

In the wake of—and not altogether unrelated to—problems arising from corporate merger activity, the federal government moved to protect the pension rights of corporate employees. Not all the growing pension obligations of corporations were fully funded, and if a corporation were to become bankrupt, the unfunded liabilities—or at least part of them—might never be paid. Responding to this concern, Congress enacted the Employee Retirement Income Security Act (ERISA) of 1974. Under ERISA's terms, the government established the Pension Benefit Guaranty Corporation as an insurer of unfunded pension liabilities in corporate-sponsored plans. In return for assuming this obligation, ERISA laid down precepts for pension fund management that called for wide diversification of portfolios to preserve principal and minimize the risks of large losses.

In responding to problems, actual and potential, arising from the increasing importance of private pension funds, ERISA provided a firmer foundation for their continued growth, which turned out to be spectacular. But the investment precepts that came with ERISA reflected the durable American ideology of financial fragmentation, the belief that financial institutions should not be allowed to exert control over nonfinancial businesses. Yet even without ERISA's provisions, this would not have been much of a threat so long as corporate executives continued to oversee the managers of their pension funds. These executives naturally took a dim view of any pension fund activism that exerted pressure on corporate managers in the name of stockholders' rights.

Two basic trends that flowed out of the New Deal reforms were by now on a collision course. Regulatory reinforcement of the fragmentation of American financial institutions had served, on the one hand, to enhance the independence of corporate management. At the same time, regulations that had required corporations and intermediaries to provide more financial and operating information for anyone who was interested had promoted a progressively broader participation in the equity markets. This occurred both through more direct investments by individuals and, increasingly, through indirect individual participation in such institutional stockholders as pension and mutual funds. Nonbank financial institutions, which possessed comparative advantages in gathering, processing, and using this information, were the prime beneficiaries. The tension between these two legacies of the New Deal reforms—the enhancement of corporate managerial independence and the increased powers of institutionalized finance (which now represented the interests of ever growing numbers of Americans)—was moving toward the breaking point.

FINANCIAL CAPITALISM RESURGENT?

At the start of the 1980s, indices of American stock prices were at levels not much different from those of the mid 1960s. Many factors contributed to this dismal performance. On the macroeconomic level, the cumulative social and economic costs of the Great Society and the Vietnam War were enormous, furnishing evidence that the reach of American policymakers greatly exceeded their grasp. By the mid 1970s, the nation was beset by rampant inflation, soaring interest rates, the political scandals of Watergate, and the first of two oil price shocks. Governmental finances were complicated by a rising national debt, as defense and social welfare expenditures outpaced even inflation-driven increases in tax revenues. Americans demanded ever more services from government, but also opposed its growth and the tax increases to support it. After the Bretton Woods international fixed-exchange-rate monetary system put in place at the end of World War II collapsed in 1971, the international value of the dollar fell. To make matters worse, government policies toward business, which had been largely dictated by the geopolitical requirements of the Cold War, ignored or in some cases badly distorted the progress of investment and innovation in the economy's center industries.

At the microeconomic level, increasing competition from abroad for American domestic as well as overseas markets had dislocating effects on the country's major manufacturing industries, in which many corporations suffered from chronic mismanagement. The cumulative effects of executive timidity, underinvestment in innovation, wasteful empire-building, and inefficient administration severely damaged such key American industries as autos, steel, and consumer electronics. Market shares eroded—in some cases vanished—under the onslaught of better-managed foreign firms. Institutional investors—banks, insurance companies, mutual and pension funds, and other pools of capital—likewise suffered from the lower returns that reflected the problems of American industry. Although these institutions, representing ever more people, collectively financed and owned a growing proportion of corporate America, they remained so fragmented by regulatory legacies that few thought they could do much directly to influence or discipline underperforming managers.

Or could they? The long-depressed stock markets of the early 1980s featured many bargains in corporate assets. Once exposed, gaps between actual and potential corporate values provided incentives for financial entrepreneurs to find ways of closing them. Recognition of such gaps also gave ambitious corporate managers incentives to buy up all or parts of their firms from the absentee owner-shareholders. With greater ownership stakes, the managers could then strive to improve returns on these assets and hence improve their market value. In too many cases, however, managers simply used excess cash to build empires through acquisitions that were often ill-conceived or unrelated to their ability to manage them, instead of investing in new productive facilities or paying out more dividends to shareholders.

The result of all this activity was a new merger wave—the fourth in American history. This one involved a remarkable variety of transactions, ranging from cross-company acquisitions to internal management buyouts, to a variety of deals, both friendly and hostile, led by third parties. What generally characterized the 1980s merger wave was its extraordinary use of debt financing to acquire, restructure, and often dismantle corporate assets. Over the course of the decade, the number of mergers and acquisitions approached 30,000, with a total value well in excess of $1 trillion. The annual number of deals peaked at more than 4,000 in 1986, and 1988 was the peak year in total value—$227 billion. Between 1980 and 1988, 178 deals of more than $1 billion each were consummated, peaking at 42 such deals in 1988. That was the year of the largest single transaction in modern corporate history. The $24.7 billion leveraged buyout of RJR–Nabisco by an investor group organized by Kohlberg Kravis Roberts & Company (KKR) upset the conventional wisdom that some companies, no matter how poorly valued, were simply too big to be taken over.

Perhaps the single most important financial innovation in this period was the leveraged buyout (LBO), perfected by specialized financial firms such as KKR, Forstmann-Little, Clayton & Dubilier, and Gibbons, Green, and van Amerongen. A typical LBO operation was made up of (1) a general partner who sponsored and supervised the LBO (these, firms such as KKR, were the entrepreneurs of the process); (2) the limited partners who provided the equity capital to finance the LBO transaction (typically a group of institutional investors); and (3) the LBO management team, persons who might or might not have been managers of the bought-out properties, but who usually held large equity stakes in them after the restructuring. By borrowing most of the money to finance buyouts, these three parties to the LBO operation stood to make handsome returns on their highly leveraged equity investments. Most of the buyout firms were new to Wall Street—KKR, for instance, was organized in 1976 after its founding partners had first pioneered in LBO financings at the Wall Street firm of Bear, Stearns. Their important entrepreneurial achievement was to mobilize the huge but fragmented pools of capital held by institutional investors to accomplish what these institutions themselves were precluded from doing on their own by laws and regulations.

In addition to new organizations, new methods of financing also emerged. In the 1970s, at the investment house of Drexel, Burnham, Lambert, a young bond trader named Michael Milken pioneered new applications for low-rated, high-yield securities. A Wharton MBA, Milken had discovered what others in the financial community had overlooked in the academic literature, particularly in W. Braddock Hickman's 1958 study *Corporate Bond Quality and Investor Experience*. Hickman's findings were simply that investors who bought "low-quality," high-yielding bonds during the first half of the century had earned returns that more than compensated for the higher risks they assumed when they bought such securities in preference to higher-rated issues. To sell these so-called junk bonds, which he had first used to finance poorly rated entrepreneurial firms, Milken assembled what would become a powerful distribution network. He accomplished this by convincing others of the validity of Hickman's conclusions while picking good targets for investment. Soon he established a loyal following of smaller insurance companies and mutual funds that were hungry for alternatives to the low stock market returns of the 1970s. He later brought in some savings and loan institutions (S&Ls), whose fundraising and investment options had been widened by deregulation in 1980 and 1982. As a result of rising interest rates and heavy losses of savings deposits to the new money-market funds, many of the S&Ls jumped at this newly available opportunity to earn higher investment returns than their mortgage portfolios allowed.

By the mid-1980s, Milken had shifted his strategy from one of primarily financing undercapitalized firms to one that provided junk bond leveraging for larger-scale corporate takeovers. Other firms—including such established houses as the giant brokerage house of Merrill Lynch and the bond-trading house of Salomon Brothers—set up their own junk-bond operations, so that corporate raiders, ambitious managers, and LBO firms alike could now mobilize debt capital quickly and on an unprecedented scale.

In the meantime, the corporate raider had become a fixture in the American economy. Raiders such as T. Boone Pickens, Carl Icahn, and James Goldsmith were initially little-known, self-made, financial opportunists who ferreted out "undervalued" target companies, lined up debt financing, and then made tender offers that existing shareholders found difficult to refuse. They themselves were not managers and perhaps had no desire even to be owners. Their game was often no more than to accumulate threatening positions in a target company's stock in order to extract "greenmail" from terrified executives who would surely lose their jobs in a successful takeover. This happened when boards of directors that were captive to sitting managers agreed to buy back raiders' shares at premiums thinly disguised as "fees for services."

Corporate executives and their captive boards soon devised new methods for fending off hostile takeovers. The most famous was the "poison pill," a generic term for any plan under which a company threatened by a takeover could increase its outstanding shares and sell them to "old" shareholders at a "concessionary price." Raiders were intentionally excluded from these ownership-diluting bargains. The poison pill reversed the discrimination in the pricing of stock that the raiders had been seeking, and accordingly it raised the costs of a takeover bid. Key executives also persuaded their boards to grant them "golden parachutes," handsome payments should they be unseated in a takeover. The justification was that golden parachutes would make managers more objective in their consideration of tender offers, which would work to the benefit of the shareholders. Others, however, saw nothing more in these schemes than artificial increases in the costs of buying and selling companies. As more management time and corporate resources went into devising ways to fend off hostile takeovers, the raiders countered by arguing that their activities rendered society a service. One of them, Carl Icahn, wrote in the Sunday *New York Times Magazine* in January 1989 that takeovers were the cure "for a disease that is destroying American productivity: gross and widespread incompetent management." The role of the raider, he said, was "to unseat corporate bureaucracies, control runaway costs and make America competitive again."

By the early 1990s, academicians and stock analysts agreed that the changes of the 1980s in many cases did create more efficient companies and did prod managers to higher performance in virtually every sector of the private economy. It is nonetheless difficult to sort out the degree to which better corporate performance was caused or inspired by the management buyouts and hostile takeovers of that decade. Other factors, such as foreign competition, new technology transfer, and generational changes in management, also played a part. Numerous studies, including those done at the Federal Reserve, supported the view that the restructurings of the takeover boom were beneficial to the economy, but the extent of the gain was still not clear. In a 1991 study, Michael Jensen, an academic proponent of the restructurings, estimated the value they created for bought-out shareholders, from 1976 to 1990, at $650 billion, or more than a third of the $1.8 trillion value of the transactions. On the other hand, the general level of stock prices roughly tripled over the same period, so perhaps only an undetermined fraction of these gains could be attributed to restructuring activities. Since not all of the restructurings were successful, the gains of bought-out shareholders were offset to an extent—perhaps 5 to 10 percent—by losses from high-yield bond defaults and those of other creditors.

In purely financial terms, many of the corporate restructurings were spectacular in recouping corporate values that had been lost by inefficient management and in creating new shareholder wealth. The 1985 LBO of the unwieldy conglomerate Beatrice, for instance, recouped about $1 billion of shareholder value after KKR took over the company and broke it up into operations that could stand better on their own. The gigantic 1988 LBO of RJR–Nabisco was estimated just three years later to have added $17 billion to the wealth of the investors who both sold and bought it, while improving the overall operating performance of the company. Prebuyout shareholders alone reaped capital gains of more than $13 billion from the deal.

Key to the long-term success of buyout firms was their ability to make positive contributions to corporate policies, strategies, and operations. Their rewards came not only from the fees and capital gains generated by the deals themselves but also from the further, long-term gains realized from improved performance of the restructured companies. These gains came when the buyout partners got to know their businesses well enough to make sound resource allocation decisions, to install and promote better executive managers, and then to keep a watchful eye on their performance. Gains would also arise if the buyout specialists ensured that executive managers themselves held enough equity in the businesses to have a direct financial stake in improved performance. This meant, among other things, that managers of mature businesses would have to demonstrate their ability to take the sometimes counterintuitive step of shrinking, rather than growing, their companies into better health. They would often have to be willing to abandon comfortable strategies and methods that had served American business in the past in order to compete in a radically changing environment. At least one buyout firm, Kelso & Company, which pioneered the Employee Stock Ownership Plan (ESOP) in the 1970s, subsequently established an investment partnership that actually imposed a new operating regimen, "demand flow manufacturing," on many of the companies it financed. In these ways, LBO restructurings served to restore in many corporations a mode of financial capitalism the likes of which had not been seen since Morgan's era before World War I.

Still, as in all merger waves, there were the inevitable problems and abuses that went far beyond the dubious greenmail tactics of the corporate raiders. Many companies saw their stock prices manipulated by outright fraud. And the leveraging of corporate capital ran on to excess. Good firms had their businesses disrupted, even destroyed, in the wake of overpriced buyouts that served only to enrich existing stockholders and those who arranged the deals. Not all buyout firms were as skilled as KKR at packaging deals and then reforming companies. Not all junk-bond financiers proved as deft at identifying good investment prospects as Milken's Drexel operation, which enjoyed fantastic success but also slipped into some bad errors of judgment and integrity as time went on. The employees and community stakeholders of bought-out companies that later went into default on their bonds—as happened with the buyouts of the drug chain Revco, the convenience-store franchiser Southland, and the trucking firm Fruehauf—were certainly worse off after the deals than they had been before. And raider Carl Icahn eventually proved that he could not manage an airline any better than his predecessors at TWA, once he had taken over that company. In 1989, Gibbons, Green, and its financier, First Boston, failed to find takers for bonds on a \$450 million bridge loan after a successful but overpriced bid for the sprawling empire of the Ohio Mattress Company. Robert Campeau's miscalculated purchases of retailers Federated Department Stores and Allied Stores slipped into bankruptcy when operating performance was insufficient to service the debt interest. And UAL's (United Airlines) \$6.75 billion employee-led buyout failed to win backing, after poor structuring of the deal by its banks. By the end of 1989, Milken had been indicted and the once-soaring junk-bond market slipped into depression. The takeover boom had come to an end.

By then, even the more successful deals were coming under widespread criticism. The dislocations caused by takeovers and restructurings, along with mounting evidence of fraud in the financial markets, brought politics roaring back into the financial arena and reignited old ideological passions. Even earlier, a political outcome was that corporate managers who felt threatened by the prospects of takeover activity were able successfully to lobby state legislatures to enact more stringent antitakeover laws than those that dated back to the Williams Act of 1968 (see table 2). Deeply rooted American suspicions of Wall Street's financial power made such appeals plausible and even welcome.

The American public in the meantime was deluged by an outpouring of newspaper and magazine articles, books, movies, television documentaries, even plays that depicted financiers as money-grubbing, antisocial brats. A new generation of muckraking best-sellers—with titles such as *The Predators' Ball*, *Barbarians at the Gate*, *The Money Machine*, and *Den of Thieves*—reflected the prevailing attitude. Such fictional characters as novelist Tom Wolfe's rich but feckless bond trader, Sherman McCoy, who proved that he could not function in the "real world" of common people, and the manipulative financier, Gordon Gekko, who announced "Greed is good" in the movie *Wall Street*, gave sharp definition to the images that financiers evoked in the minds of most Americans.

Life imitated art, as federal court dockets were filled with cases charging greed and corruption by investment bankers and their clients. A Wall Street icon, Ivan Boesky, and a rising star, Martin Siegel, were convicted of insider trading, and the spectacular career of Michael Milken was cut short after his conviction on charges of securities fraud and stock manipulation. It all seemed to prove that even the wealthiest financiers could not be trusted. Enhanced by modern mass media technologies, the real and fictional exposés revealed the 1980s to be a "Bonfire of the Vanities," to use Tom Wolfe's title for the era. But this was just a reprise of an old song. The vilification of financiers and Wall Street embodied historically familiar themes, echoed and reechoed from the time of the American Revolution through the eras of Biddle and Jackson, Morgan and Pujo, and Mitchell and Roosevelt.

Doubts about the soundness of the financial system were abetted by the spectacular crash of stock prices in October 1987 and by the minicrash two years later. Massive losses incurred by federally insured S&Ls during the 1980s added fuel to the bonfire, leaving taxpayers to cover the government-insured losses at the end of the decade. To be sure, any ill effects of corporate restructurings and the "S&L debacle" were only dimly related. The S&L problem was mostly one of real-estate loan defaults, largely the result of mismatched assets and liabilities in the inflationary environment of the 1970s and then exacerbated by badly planned deregulation in the 1980s. But a number of S&Ls had bought junk bonds, so their problems and Wall Street's were linked in the public mind.

Once again, the government applied the brakes to what had been an accelerating trend toward deregulation in the capital markets. Since the 1970s, major commercial banking institutions, Citicorp and Chase Manhattan Bank, for example, had made some progress in obtaining relaxations of Glass-Steagall's rigid barriers between investment and commercial banking. In 1991, the U.S. Treasury unveiled a plan for "Modernizing the Financial System" along lines that would encourage the developing attempts of large banks and other financial firms to re-create the pre-1930s-style full-service, "financial department stores." These efforts got nowhere that year in Congress. Attempts by Salomon Brothers to rig bids in the U.S. government bond market also helped to shelve plans for further liberalization of banking and securities market regulations. For Wall Street, however, none of these developments, adverse though they were, came anywhere close to the debacle it had suffered during the 1930s. Events suggested, if anything, that the power of financial capitalism was on the increase. Consider the dramatic change that took place in the first three years of the 1990s. Throughout the 1980s, there were few attempts by institutional investors to exercise influence over the policies of corporate managers. Those great intermediary institutions—the pension and mutual funds—did little to represent the interests of the owners of corporate stocks. They did not debate management decisions or seek seats on corporate boards, and they refrained from actively monitoring corporate managers' performance. By 1993, however, institutional activism was directly responsible for instigating reforms in the nation's largest companies. Pressure from institutional shareholders led to the ousters of chief executives at General Motors, IBM, and American Express, each one a company in need of reform, each one a traditional bastion of managerial control. Corporate boards began to take more seriously the concerns of their institutional investors, who in turn found it profitable, over the long run, to behave more like owners than mere holders of stock. Without threats of corporate raids or buyouts, institutional shareholders finally began to show corporate managements that they could exercise the latent prerogatives of dissatisfied owners who wanted to keep, not sell, their companies. An overriding lesson of the 1980s merger wave was that the owners of capital through their representatives, financial intermediaries, could once again have a positive, disciplinary role to play in corporate performance.

THE FUTURE

Financial capitalism, once thought to be dead, reasserted itself in the American corporate economy of the 1980s and 1990s. Whether this development will prove to be more than a temporary aberration is uncertain. Will the central capital market community identified with Wall Street be forced again to retreat, as after Pujo, or be beaten down and reined in, as during the New Deal? Will there be another passage of decades until a new opportunity arises for it to reassert the creative-destructive powers of finance in economic affairs? Will American financial history continue to repeat itself, or at least continue, in Mark Twain's words, to rhyme?

Clearly the issues raised by this historical survey merit more study and debate. A lingering hostility to concentrated financial power has been present in the United States from the outset, suggesting that more repetition, more rhyming, lies ahead. But there are also reasons to doubt that this pattern will continue, or at least that it should continue. Looking back, we can see that the role and impact of American financiers and financial institutions evolved substantially from their primitive beginnings after the Revolution to the time of J. P. Morgan and the high tide of financial capitalism. They changed even more rapidly by the time of Charles Mitchell and the New Deal and transformed themselves even more radically from the 1930s to the modern era of Michael Milken, KKR, and Salomon Brothers. Putting it that way might suggest that capital markets have changed for the worse, but in more fundamental ways they have clearly changed for the better.

Today more financial information is available more readily than ever to all capital market participants. Computer and telecommunications technologies provide open and speedy access to the capital markets, liberating trading in securities from traditional constraints of time and place. Methods of interpreting and using financial information have improved so much that some of the methodologists have even won Nobel Prizes for their work. There has, in other words, been a distinct trend favoring increased dissemination of financial information and a broadening sophistication in its use by masses of investors. This has happened because of the more general trend toward democratization of finance and financial institutions. As a result of these developments there is a stark contrast between J. Pierpont Morgan's financial world at the turn of the century and that of the present day. Although Morgan evokes considerable nostalgia among historians and practitioners of finance alike, it is important to remember that he (and others like him) wielded great financial power by virtue of privileged access to information. By keeping the information to himself and his partners, Morgan used it in sometimes stupendous and mystifying ways for the benefit of a limited number of large corporations and wealthy investors. How suspicious it all must have seemed to the mass of people and their representatives in political life!

Thanks to increasingly strict disclosure rules, modern institutional as well as individual investors have relatively free access to the sorts of financial and corporate information that were once considered privileged data by privileged bankers. No longer, for instance, can even acquisitions of more than 5 percent of a corporation's stock be made without full public disclosure. Thanks to disclosure and other rules regulating their businesses, institutional investors have to keep both their clients and the regulators well informed about their activities, investment policies, and financial results.

And who, after all, are the clients of these institutions, the banks and trust companies, the insurance companies, the mutual funds, and the pension funds? Thanks to the growth and wider distribution of wealth, and to the progressive democratization of finance, the clients are now proportionally more people than ever before. And the financial institutions that intermediate individual and household investments are also more diverse and numerous than before. Indeed, political and social presumptions about finance have been so altered since the turn of the century that everyone is now entitled, at least in law and in theory, to equal access to financial information. Any attempt to "corner information," any privileged use of information on an "insider" basis, is necessarily illegal or unethical, or both. The implications of these changes are historically profound.

These new circumstances challenge the ideological presumption that financial institutions should be fragmented. They likewise challenge the presumption that financiers—now institutions more than individuals—should be prevented from exerting control over the managements of corporations whose securities they hold and manage in the interests of their client-investors. The laws and regulations that implement these presumptions foster the tendency of corporate executives to deploy assets belonging to others for their own personal goals. If financial capitalism has now evolved toward what has been called "pension fund socialism," in which the masses are coming to own the means of production, should financial regulation continue to advance the separation of ownership and control in the corporate sector? Or should it be altered in the direction of bringing ownership and control closer together? In an increasingly global economy should American capital markets continue to operate under regulatory controls that enforce fragmentation of institutional structures while most major industrial countries operate under lesser constraints? If the informational practices of other countries—which are now generally less open than American standards—begin to converge with those of the United States, a likely result would be that U.S. financial institutions would lose global and even domestic market shares. By failing to adjust old ideologies and regulations to new realities of a global marketplace, the United States could be in danger of converting one of its historical competitive advantages—efficient capital markets of great breadth and depth—into a competitive liability.

However the questions may be answered in time, one thing is certain for the near-term future. The abiding influences of American culture, as they are reflected in power-averse ideologies and fragmented political structures, will continue to influence the course of development of domestic and, by extension, global capital markets for some time to come.

See Also Taxation; Economic Policies; Economic Performance (all in this volume).

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Histories of particular institutions that place the firms in their broader contexts are Ronald Chernow's expansive *The House of Morgan* (1991), which includes excellent biographical material on George Peabody and three generations of Morgans from Junius to J. P., Jr.; Robert Sobel's lively histories, *The Big Board: A History of the New York Stock Market* (1965) and *The Life and Times of Dillon Read* (1991); Vincent P. Carosso, *More than a Century of Investment Banking: The Kidder, Peabody & Co. Story* (1974); and Harold van B. Cleveland and Thomas Huertas, *Citibank, 1812–1970* (1985).

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