

## CHAPTER 13

# DEVELOPMENTS IN COMMUNICATIONS AND FINANCE, 1950 TO THE PRESENT

### Communications

The communications industry underwent profound changes in the postwar era. The development of microwave communications reduced the costs of long distance communications while opening it up to competition. Computers allowed the quick transfer of huge amounts of information, allowing firms to more closely monitor and direct decentralized production. The growth of FM radio and television brought national news and entertainment into nearly every living room and altered the leisure habits of Americans.

#### *Mass Communications*

*Newspapers* Mass communications media—of which newspapers are the oldest form—are directed at the population in general and, for the most part, provide news and entertainment. The decline in the number of newspapers, which began before the First World War, continued after the Second World War. Daily and Sunday newspaper circulation has grown but not as fast as population grew. The number of cities with competing daily newspapers has declined.<sup>1</sup> Big-city afternoon daily newspapers, in particular, continue to vanish—victims of the changing economy. Manufacturing employees go to work earlier and get home earlier than urban office and other service workers. The typical office worker is more likely to read a paper in the morning before leaving for work. In the afternoon, TV news and new suburban, community-oriented newspapers compete with the big-city afternoon daily. Early deadlines and the higher cost of trucking papers for delivery during the afternoon rush hours has also hurt the afternoon daily.<sup>2</sup> The Newspaper Preservation Act of 1970 authorized joint operating arrangements to allow weak newspapers to combine with stronger ones to reduce printing and business office expenses but this did not always cure the financial problems.<sup>3</sup> Another trend in the postwar period was the strong growth of newspaper groups or chains. By 1977 the five largest groups controlled 25 percent of the nation's newspapers.<sup>4</sup>

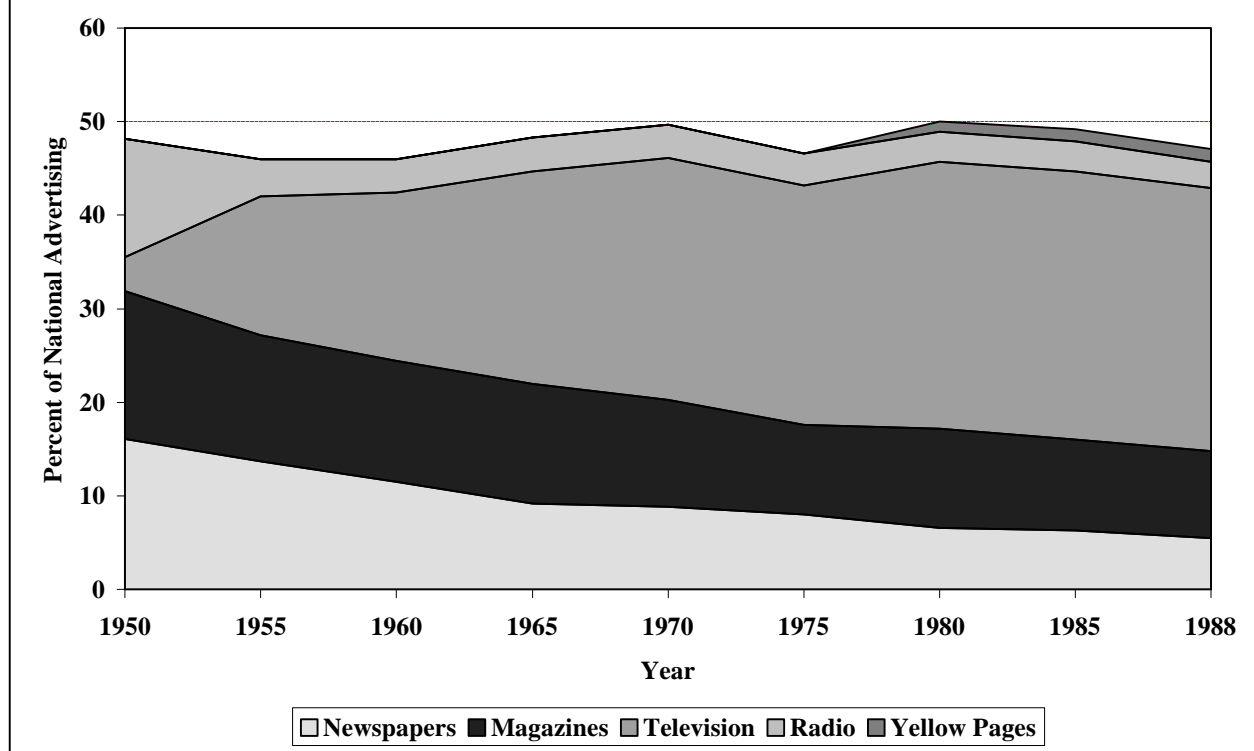
Newspapers, generally seeing no growth in circulation, faced increasing cost pressures as real newsprint and labor costs continued to rise. Computerization allowed newspapers to abandon the labor-intensive setting of hot type for news and ads in favor of swift and easy computer technologies.

Critics commonly claimed that newspapers failed to raise their advertising rates—from which they receive the bulk of their revenues—enough to cover rising production costs.<sup>5</sup> However, this complaint relies upon the common fallacy that costs determine prices. Rather, it is demand that determines prices. With the rise in competing advertising mediums, such as television, FM radio, the Yellow Pages, and suburban and shopper newspapers, the daily and Sunday newspapers were constrained in raising advertising rates because of the possibility of increased substitution to competing advertising mediums. Figures 13.1 through 13.2 provide some statistics on advertising expenditures. Newspapers' share of national advertising dropped from 16.4 percent to 5.5 percent as television's share grew, while their share of local advertising has been reduced by over 10 percentage points.

*AM Radio* Although both FM radio and television were developed prior to the Second World War, disputes about frequency allocations and the war itself delayed their appearance allowing AM radio to remain the principal broadcast medium into the late 1940s. Immediately after the war national networks dominated broadcasting time on AM radio, contributing 40 percent or more of advertising time sales.<sup>6</sup> With the introduction of television network broadcasting in 1947, national advertisers began to move to television. Radio network advertising time sales declined rapidly after 1951. AM radio stations had been so dependent on the networks that many felt that the future of AM radio was threatened. However, AM radio underwent a remarkable transformation, and the number of AM radio stations continued to grow. Though radio's share of local advertising declined between 1950 and 1955, it then rose to 1975, where it has remained.

To adjust to the reduction in revenues from network broadcasts, AM radio stations cut costs. Live programs gave way to recorded ones using magnetic tape, the new long-playing 33 and 45 rpm records, and the older 78 rpm records. New, more reliable equipment allowed announcers to play recordings, put announcements on the air, and adjust signal levels, which obviated the need for large, highly paid staffs. With the virtual cessation of live programs, the large broadcast halls were no longer needed, and stations moved into smaller broadcasting facilities. Stations also began to specialize in programming such as country, classical, or rock music, agricultural

**Fig. 13.1. Estimated Shares of National Advertising**



and weather news, and so on. FCC reports showed that the average annual operating costs of an AM radio station dropped from \$1,230,769 (in 1982-84 dollars) in 1946 to \$533,088 in 1956.<sup>7</sup>

**FM Radio** Immediately prior to the Second World War, FM radio had appeared to have a bright future. FM radio transmissions could eliminate static, had a broader frequency range for higher fidelity sound, and could have higher quality reception at greater distances from the transmitter.<sup>8</sup> Initially the FCC gave FM 35 wide-band channels in the 43-to-58 MHz range, enough for about 1,500 to 2,000 stations in the United States. By 1941, 58 stations were on the air, and 400,000 sets had been produced.<sup>9</sup>

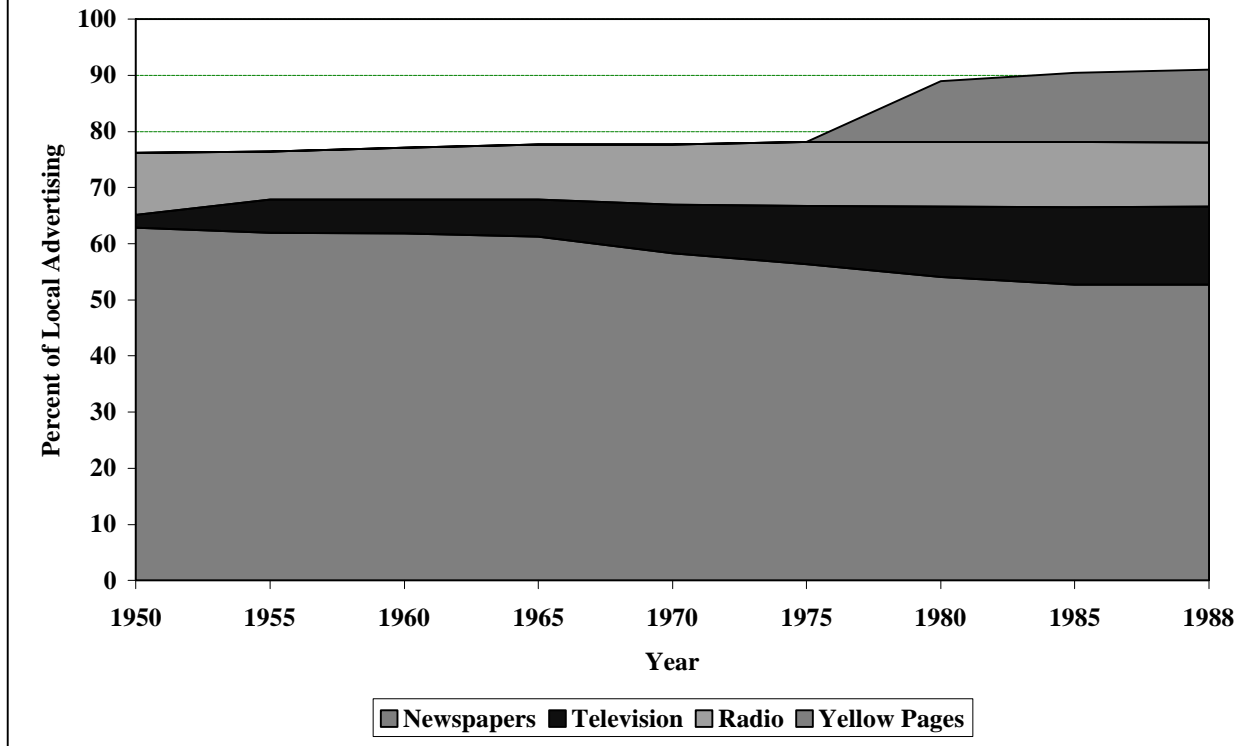
However, work during the war had led the FCC to calculate that there would be too much cochannel interference in the 43-to-58 MHz FM band, and with the war's end they moved quickly on June 27, 1945, before commercial receiver production was to resume, to shift the FM band to 88 to 108 MHz.<sup>10</sup> This occurred despite opposition from "FM equipment and FM station owners,...from the Commission's own panel of industry experts...and RCA."<sup>11</sup> Vincent Mosco believes that the spectrum shift may have been motivated by a desire to protect AM radio stations and that it did harm FM radio's development. The FCC intended FM to be supplementary to AM and in 1945 also reduced the

maximum station power and lowered antenna heights, thus reducing the effective coverage from a radius of 150 miles to 45 miles.<sup>12</sup> AM stations were encouraged to take over FM stations and duplicate programming.

The number of FM stations declined from 1951 to 1957. By the beginning of the 1950s there were few receivers sold and few listeners. Part of this was due to technical problems. Multipath distortion in hilly terrain distorted the signal. Until 1957 FM radio receivers were likely to drift slowly off the chosen station. Although FM signals had less distortion and a wider frequency range than AM signals, FM receivers were generally no better than their AM counterparts. Thus, the sound of FM was not noticeably superior to that of AM. Radio was still tied to network programming, which was too expensive for FM stations, and network signals were of low quality with a limited frequency range and therefore unable to use FM's superior features. Finally, few autos had FM radios.

After 1957 a number of changes came together to cause FM to begin growing again. The near disappearance of network radio, improved equipment, cost-cutting changes, and the moves toward music programming began to boost FM. The development of Automatic Frequency Control (AFC) eliminated FM drift, and the rise of high-fidelity

**Fig. 13.2. Estimated Shares of Local Advertising**



components and rock music, which generally required truer reproduction, also increased its popularity. Stereo broadcasting was authorized in 1961, which gave a strong impetus to further FM development. As a group FM-only stations first became profitable in 1976 and have become increasingly profitable in the following years.<sup>13</sup>

**Television** After the war the National Television System Committee's standards were instated, and 13 VHF channels were assigned to television. Channel 1 was later reallocated to FM broadcasting leaving, 12 VHF channels for television. Initial license applications were slow to arrive due to the much larger costs of beginning broadcasting; one television camera cost as much as all of the equipment for a small radio station. In 1949 operating costs for a television station were roughly six times as much as for a radio station. Television required new and unfamiliar programming and production techniques. Finally, given the small number of television sets in existence, there was uncertainty over the commercial future of television.

Development was also slowed by CBS's support of a color television system, which was not compatible with the RCA monochrome broadcasting system that had been adopted.<sup>14</sup> When CBS's petition for its color system on UHF channels was denied in 1947, new applications for VHF licenses poured in

faster than the FCC could handle them, and it soon became evident that there were insufficient channels in the larger markets. Complaints of cochannel interference also began rising.<sup>15</sup> Having been criticized for channel assignments that allowed cochannel interference in AM radio, the FCC was not eager to be subjected to this again. Its response was to impose a "freeze" on all station assignments on September 24, 1948, and at the end of the freeze in April, 1952, only 108 stations were broadcasting.<sup>16</sup>

The FCC severely limited the number of VHF channels in each city to ensure that no VHF cochannel interference arose, and reserved one VHF channel in every city for educational or public broadcasting.<sup>17</sup> Channels 14 to 83 were assigned to the UHF spectrum of 470 to 890 MHz, but UHF broadcast signals were inferior to VHF signals, and until 1964 few television sets included UHF receivers. The FCC refused to adopt the principle of deintermixture—that is, "the assignment of VHF-only or UHF-only channels to each city."<sup>18</sup> If this had been adopted, competition between VHF and UHF would have been avoided, and UHF would have found much more ready acceptance. The FCC virtually ensured that VHF would dominate UHF, created longstanding monopoly rents for VHF licensees, and, as we shall see, effectively limited the number of national television networks.<sup>19</sup>

In February, 1948, when AT&T was authorized to begin providing network television transmissions, seven companies—NBC, CBS, ABC, Mutual, DuMont, Philco, and Paramount—were ready or planning to enter into network television broadcasting.<sup>20</sup> Because the FCC limited the networks to outright ownership of five television stations, they had to develop by affiliation with existing television stations. NBC and CBS's already well developed networks of affiliated radio stations gave them an advantage in this. Early in 1948 both Mutual and Philco dropped their television network plans. Paramount did little more than operate two television stations, leaving four national television networks: NBC, CBS, ABC, and DuMont.

The freeze placed ABC and DuMont at a disadvantage compared to NBC and CBS because they did not have affiliates in all of the major cities. In 1949 DuMont formally proposed to the FCC that it institute a policy of deintermixture so that each network could get an affiliate in each major city.<sup>21</sup> The FCC refused and, with the lifting of the freeze and severe reduction of VHF channels in most cities, virtually guaranteed that ABC and/or DuMont would fail.<sup>22</sup>

AT&T's interconnection charges also placed ABC and DuMont at a disadvantage. Networks that contracted for service eight hours a day, seven days a week—NBC and CBS—were charged \$39.50 per month per mile. Occasional-use networks—ABC and DuMont—were charged \$69 per month per mile for two hours each day in a month. The FCC turned a deaf ear to ABC's and DuMont's protests.<sup>23</sup> The competitive disadvantages retarded ABC and DuMont's development and after DuMont gave up in 1955, ABC picked up many of its former affiliates and "was able finally to begin a rise toward parity with CBS and NBC in the television broadcasting industry."<sup>24</sup>

Television turned out to be a financial bonanza for VHF license holders; the industry became profitable in 1951 and saw its revenues grow on average 15 percent per year from 1950 to 1980.<sup>25</sup> Television became the dominant national advertising medium as early as 1960, with an 18 percent share. By 1970, 25.8 percent of national advertising was directed to television, a share that has not grown much since. Television's share of local advertising grew steadily to the late 1980s, though remaining a distant second to newspapers. In contrast, UHF stations struggled even after the 1963 amendment to the 1934 Communications Act required televisions to receive both VHF and UHF signals. As a group, they became profitable in 1976.<sup>26</sup>

Due to rising competition from cable television systems, the profits of local stations and

national networks stopped growing in the mid-1980s. Cable television began in 1948 as subscriber systems to bring in signals to areas that normally could not pick them up.<sup>27</sup> The rise of satellite program distribution opened the market to the development of "superstations" and cable networks; subscribers had to pay for some, and other were included as part of the basic cable subscription.<sup>28</sup> UHF stations were given new life by the development of cable, which made access to their signal as easy as for the local VHF network stations. In the late 1980s a new national network, Fox Broadcasting, began by affiliating with local UHF stations, most of which could easily reach the viewing audience via cable systems.

In the early 1980s a wave of cable construction swept across the United States. By 1984 it was felt that policies covering cable systems were necessary, and the 1934 Communications Act was amended to provide for cable systems. The act covered franchising and franchise fees; requirements for channels with public access and public, governmental, and educational use; copyright fees; and duplicate programming of locally broadcast programs. It also required that all rates were to be deregulated by 1987 in communities that the FCC judged to have effective competition.

Court tests of the monopoly franchises of local cable companies yielded contradictory decisions. Meanwhile, when local control of subscription fees was removed in 1987, cable companies began exercising their monopoly power as rates quickly rose. By 1989 charges of excessive rate increases were commonplace, and critics were proposing congressional action to reregulate cable TV rates.<sup>29</sup> Late in 1991, preliminary approval was given to telephone companies to develop proposals to install fiber-optic cables that could carry not only telephone signals but also all of the programs currently transmitted through cable lines. If allowed, this would likely provide effective competition for the local cable TV monopolies.

### *Interpersonal and Business Communications*

*Postal Services* In contrast to mass communications, interpersonal and business communications are between individuals and/or firms, and there is a charge for each communication. The U.S. Postal Service is the oldest such communications medium, and it is an enormous organization.<sup>30</sup> It is the largest single user of floor space in the United States, and is exceeded only by the military as a purchaser of transport equipment. Overall it handles about half of the world's mail. If we assume that the Postal Service's contribution to GNP can be measured by its expenditures, then on

average from 1950 through 1988, it has contributed 0.75 percent of GNP. The Postal Service is extremely labor-intensive, with 80 to 85 percent of its budget in payroll.<sup>31</sup>

The Post Office had never been known as a model of efficiency. In 1966 the 13 story Chicago Post Office essentially ground to a halt stopping mail movement through it and slowing mail delivery across large areas of the United States. By the 1960s the patronage system of appointing postmasters and rural letter carriers was drawing criticism.<sup>32</sup> President Johnson directed that the Kappel Commission undertake a study of postal affairs. The commission's report recommended that the U.S. Post Office be reorganized into the U.S. Postal Service, a quasi-independent body which was approved in 1970, and began operations on July 1, 1971. The patronage system was replaced with civil service career employees to make the Postal Service more professional, and the new organization was supposed to make the Postal Service more efficient and reduce the government subsidies. The federal government's appropriations as a percent of revenues have fallen since 1970.

The arguments supporting the legal monopoly of first-class letter delivery services have generally involved economies of scale and "cream-skimming." However, few studies have found the economies of scale that would justify a legal monopoly, and, of course, the Postal Service does not have a monopoly on other classes of mail. "Cream skimming" is the practice of delivering higher profit mail, such as letters within a city, and not delivering lower profit mail, say, letters between states. Such a practice can only occur when the Postal Service practices price discrimination, which is what a uniform rate per ounce of first-class mail amounts to.<sup>33</sup> Because of the legal monopoly on first-class mail delivery, first-class mail also effectively subsidizes other types of mail handled by the Postal Service. In fact, the U.S. Postal Service has a clear advantage over private mail and parcel post delivery services because of its legal monopoly on first-class letters; complete exemptions from all corporate, property, and business taxes; and the subsidies from Congress. The Postal Service has vigorously defended its monopoly by prosecuting firms that have attempted to move into the delivery of first-class mail.

Even with these advantages the Postal Service's performance has been dismal. Lacking incentives to be efficient, it has been extremely slow to adopt labor-saving machinery and has allowed wage rates to rise well above market levels.<sup>34</sup> To cover the growing inefficiency, real first-class letter rates rose substantially between 1950 and 1975,

though they have declined somewhat since then because of competition from falling long distance telephone rates, the growing use of FAX technology, and electronic mail through computers (E-mail). (See Figure 13.3.) The Postal Service's share of the courier/overnight mail business has plummeted to 12 percent since the early 1980s, as private firms such as Federal Express now handle most of this business. The Postal Service's share of the fourth-class parcel business is now down to 6 to 8 percent as United Parcel Service, a private company, now handles the bulk of this business.

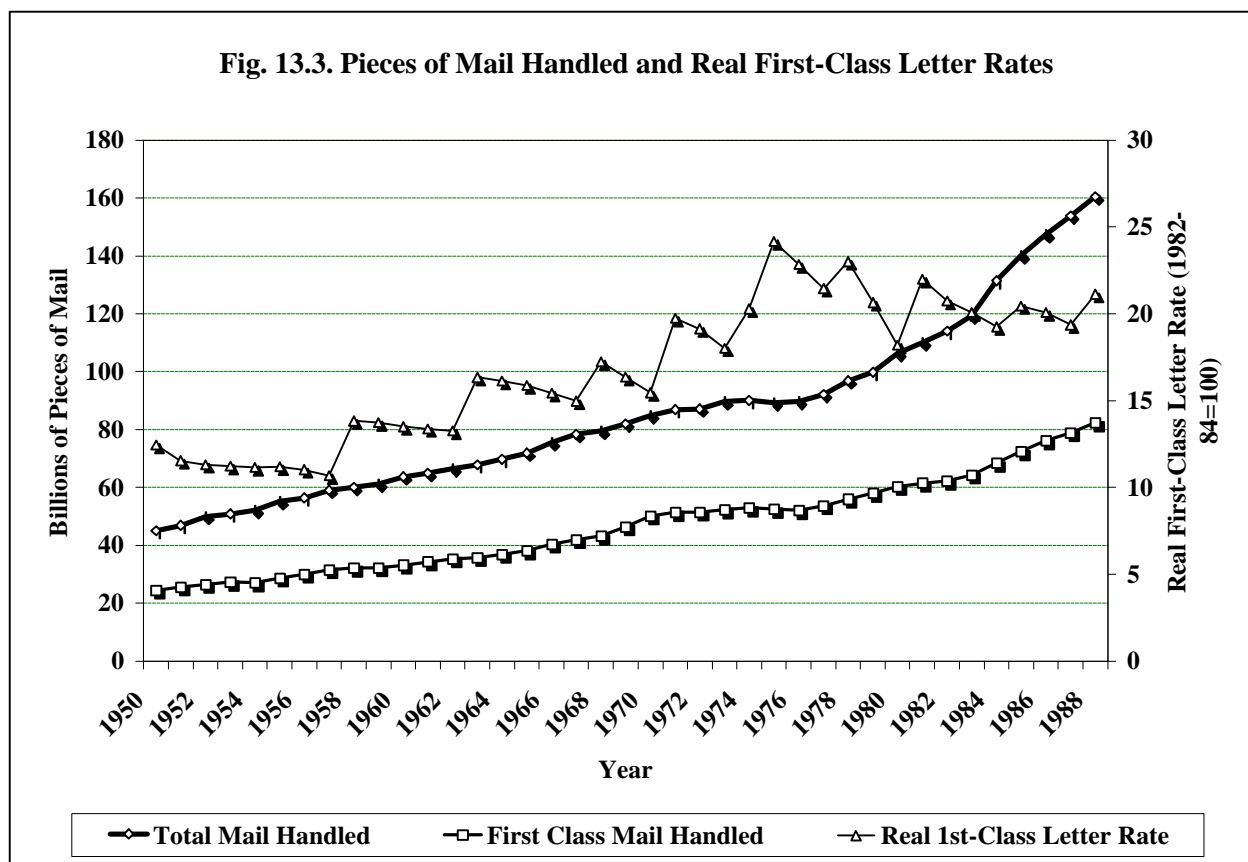
Rather than improving, Postal Service delivery has been growing worse. By 1991 it took 22 percent longer on average for a first-class letter to reach its destination than in 1969.<sup>35</sup> This deteriorating performance led to a number of calls to either privatize the U.S. Postal Service or eliminate its legal monopoly to open up the delivery of first-class mail to competing firms. As of 1991 no move had been made in this direction.

**Telecommunications Services** The demand for telephone service continued to rise after the Second World War and telephone use grew rapidly, especially toll calls as long distance rates fell.<sup>36</sup> (See Figure 13.4.) Until the 1970s AT&T provided the only long distance connection between the local exchanges. Eighty percent of the population received their local phone service from an AT&T local company. Long distance service was regulated by the FCC whereas the local exchanges were regulated by various state public utility commissions. AT&T supplied end-to-end service, including the ownership of all equipment—it leased phones to customers.<sup>37</sup>

The postwar period saw a number of developments. As AT&T began to switch from systems with a central operator to direct dial automatic connection, the share of customers on private lines rather than party lines rose from 25 percent in 1950 to 73 percent in 1965.<sup>38</sup> By 1960, 97 percent of Bell customers had local-direct dial service, and by 1963, 80 percent of Bell customers had long distance direct dialing.<sup>39</sup>

By the late 1960s AT&T was failing to keep up with the growing use of the telephone. In New York City overloaded circuits began resulting in waits of two to three minutes for a dial tone, false busy signals, dead lines, crosstalk, false rings, and incorrect phone bills. On July 8, 1969 there was a near total failure of a key New York City exchange, incapacitating phones for several days. Outages struck other parts of the city later in 1969 and 1970. In 1970 Boston had telephone snarls that were even worse than those in New York City. Denver and Houston also experienced telephone problems that year.<sup>40</sup>

**Fig. 13.3. Pieces of Mail Handled and Real First-Class Letter Rates**



In the 1970s, under new leadership, AT&T recovered.<sup>41</sup> By the beginning of the 1980s, AT&T was the largest corporation in the United States.<sup>42</sup> However, legal and competitive pressures that had been building for two and a half decades came to a head on January 8, 1982, when AT&T signed a consent decree to restructure itself. On January 1, 1984, AT&T divested itself of all of its local operating companies and emerged as a much smaller corporation facing a competitive long distance telephone market.

The roots of these changes lie in FCC decisions initially made during the Second World War. As long distance calls increased and the Long Lines Division's profits rose early in the war, the FCC directed AT&T to replace its board-to-board accounting with station-to-station accounting.<sup>43</sup> This shifted costs from the local operating companies to the Long Lines Division and required that revenues be transferred from the Long Lines Division to the local operating companies. These shifts allowed the FCC and state regulators to lower local rates and move closer to universal local service, a goal the FCC and state regulators desired.

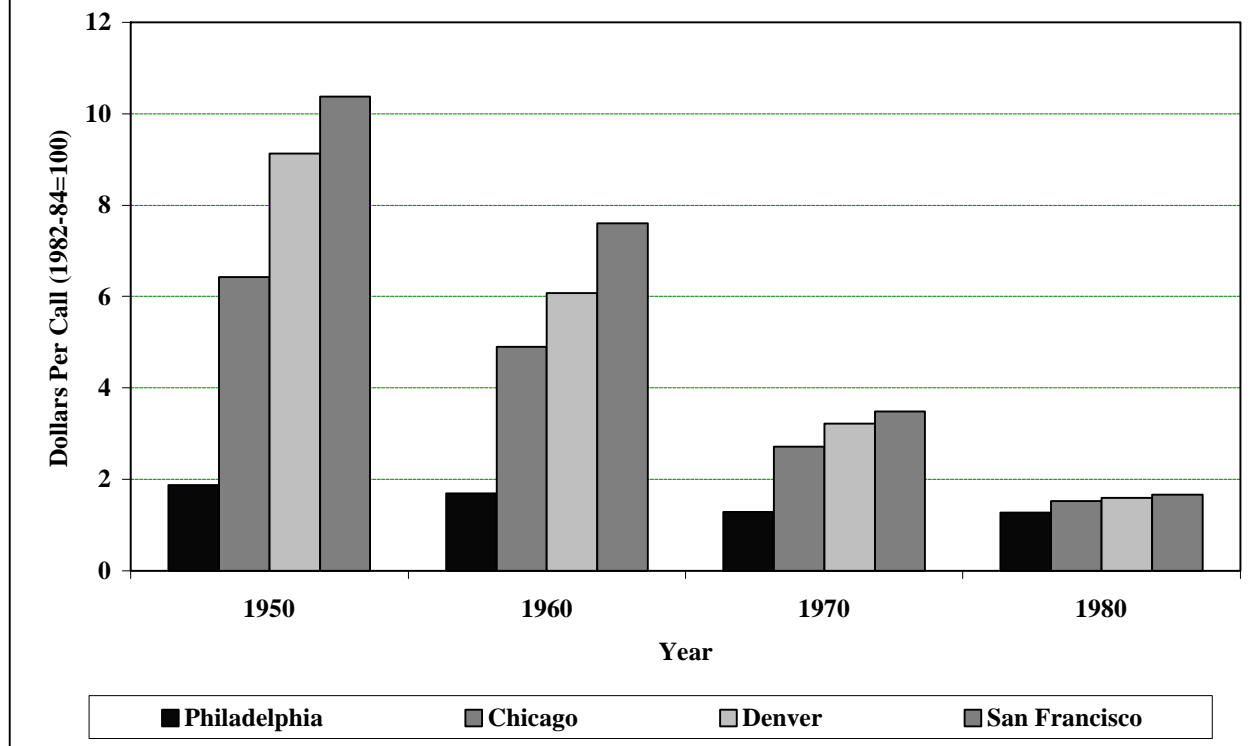
Because this separation of costs and revenues was arbitrary, it could be changed. In 1947 about 2.5 percent of the local exchange plant was allocated to interstate service, but by 1980 about 25

percent was so allocated. These local charges against long distance revenues—access charges—were 35 percent (\$7 billion) of total interstate revenues in 1981.<sup>44</sup> As a result, even though technological developments lowered the costs of providing long distance service, long distance rates did not fall commensurately.<sup>45</sup>

In the mid-1950s AT&T began developing a microwave transmission network to thwart the television networks that were proposing building their own microwave networks.<sup>46</sup> The 1959 the *Above 890* decision allowed private microwave networks above 890 MHz. In 1963 Microwave Communications, Inc.—MCI—requested permission to provide private-line network service between Chicago and St. Louis, and in 1969 this was granted. With the competitive door opened, by the middle of 1970 the FCC was inundated by 2,000 applications to provide private line service. The FCC's *Specialized Common Carriers* decision of 1971 developed general rules for such carriers. As the competitive invasion accelerated, AT&T introduced its "Hi-Lo" tariff in 1974 which lowered rates for its private-line circuits.<sup>47</sup>

In November of 1974, the Justice Department filed an antitrust suit against AT&T. Meanwhile the competitive invasion continued. In 1976 firms were allowed to create value-added

**Fig. 13.4. Real Telephone Rates from New York City to Selected Cities**



networks by simply leasing private-line circuits to add some functions and then reselling them to the general public.<sup>48</sup> The competitive invasion that the FCC had created now went beyond its control when MCI began offering its own ordinary long-distance telephone service in 1974—the Circuit Court of Appeals approved this in 1977.<sup>49</sup>

The whole problem, of course, had been created by the FCC's insistence on long distance rates reflecting station-to-station costs and the growing gulf between station-to-station and board-to-board costs. If MCI's long distance telephone service was allowed to subscribe to local telephone service at ordinary business rates, it would have been subsidized by AT&T's Long Lines through the separations charges, and the result would have been one-third lower capital costs for the same long distance facilities.<sup>50</sup> Decisions in 1978 and 1980 required all Bell Telephone companies and independent local telephone companies to interconnect with other long distance services.<sup>51</sup> AT&T proposed an interconnection tariff for other long distance carriers equal to that assigned to the Long Lines Division, but the tariff was vigorously opposed, and the other carriers received large discounts on their connections.<sup>52</sup>

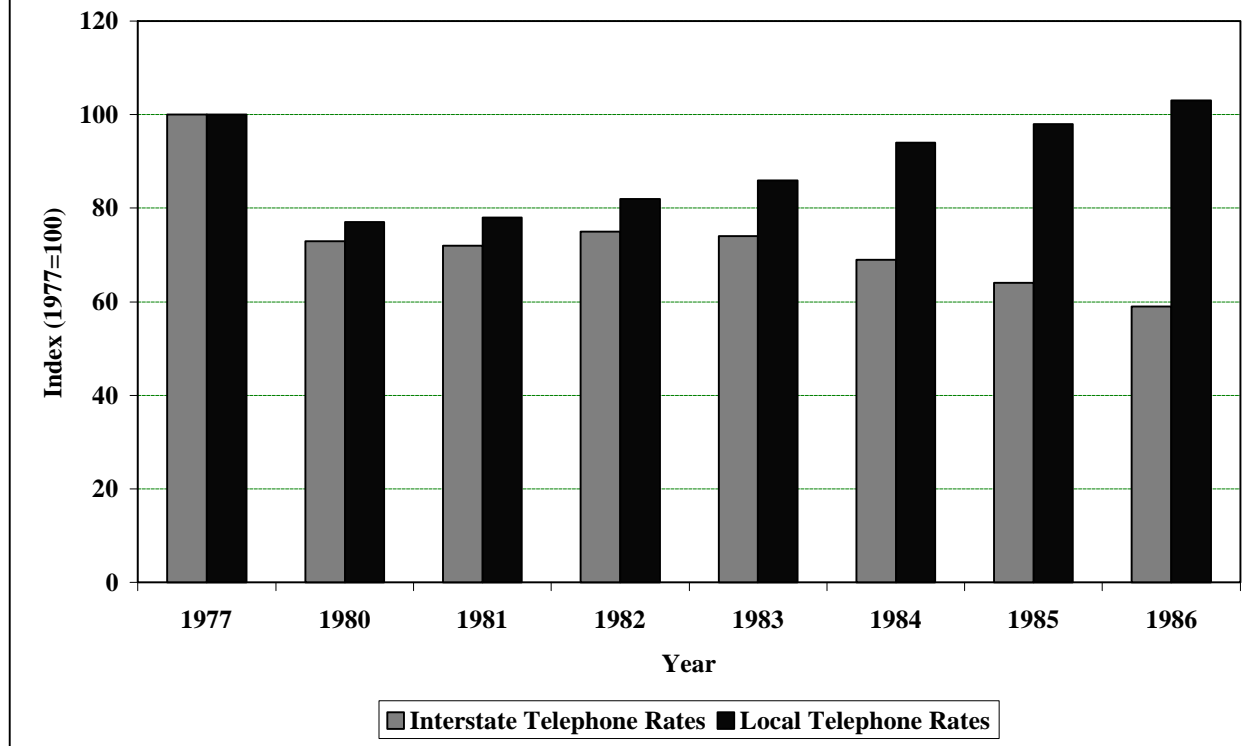
AT&T was unsuccessful in its attempt to get legislation passed that would have forestalled the

Justice Department's antitrust suit. By 1981 statements by the judge hearing the Justice Department's case forecast a decision against AT&T, and juries had found for Litton and MCI in their private antitrust suits against AT&T. AT&T began to negotiate a settlement with Assistant Attorney General William F. Baxter.

The consent decree, announced on January 8, 1982, was to take effect on January 1, 1984. AT&T was dismembered. The operating companies were divided into seven regional companies with at least \$15 to 20 billion in assets. The new regional companies were not allowed to manufacture or sell terminal equipment, but they retained control of the highly profitable Yellow Pages publishing. The new AT&T was freed to compete in any field it chose, retained both Western Electric and Bell Laboratories, and was allowed to compete on price with the new long distance companies. On January 1, 1984, "when each of AT&T's 3 million stockholder accounts became eight accounts, they comprised close to half of the stockholder accounts in the United States."<sup>53</sup>

Competing long distance companies were given equal access to local exchanges via "dial one" service.<sup>54</sup> The initial estimate of \$7 per customer to replace AT&T's lost separations charges and maintain the lower local service rates, were reduced to access charges of \$2 a month for residential

**Fig. 13.5. Indexes of Real Telephone Rates, 1977-1986**



service and \$4 a month for business service. This aroused the anger of customers, while other long distance carriers were angry because their cost advantages largely disappeared.<sup>55</sup>

Real long distance rates, as shown in Figure 13.5, fell, while real local rates rose.<sup>56</sup> Between 1983 and 1987 AT&T's share of the long distance market fell from 90 to 72 percent, while its competitor, Sprint, became the leader in installing the new long distance fiber-optic networks.<sup>57</sup>

### ***Communications Changes in the Postwar American Economy***

For better or for worse, postwar developments in mass communications changed America's entertainment and leisure activities. Television has undeniably allowed many millions to see types of entertainment they would otherwise not have seen. Though it has been criticized as a "vast wasteland," it has also provided nearly instantaneous, visual news and information and lessened regional and rural differences and isolation. Declines in attendance at live theater productions and motion pictures and in newspaper readership and other leisure activities have offset some of the benefits from the rise of television. However, radio—both AM and FM—adapted well to the rapid rise of television.

Developments in interpersonal and business communications have accelerated in recent decades. The completion of microwave transmission networks allowed easy and virtually instantaneous communication across long distances. The rise of competition lowered the costs of long distance communications, and the expansion of computer transmissions allowed firms to monitor and coordinate internal activities much more closely. These were crucial to such developments as "just-in-time" production, which lowered inventory costs, and, for many firms, a decentralization and dispersion of production facilities. These cost-decreasing changes have contributed to the increases in America's real incomes.

### **Financial Markets**

There were numerous changes in the financial sector. Competitive developments in banking began to erase the distinction between deposit and nondeposit banking, and banks moved into nonbank financial and nonfinancial activities. The 1980s saw a steep rise in bank and thrift failures. Credit cards arose as a new payment mechanism, and electronic banking altered the nature of banking. The securities markets saw two booms, one in the late 1960s and the other in the mid-1980s. In the following brief survey of



postwar financial markets, we shall examine the most important financial markets: commercial banking, thrifts, and credit unions; credit cards; insurance; and the securities markets, particularly the New York Stock Exchange.

### ***Banking***

After the Second World War, commercial banks provided financial services to commercial and industrial customers and were the only financial institutions allowed to offer third-party demand deposits, which were then used primarily by businesses, not households—as late as 1946 only 34 percent of households had a checking account.<sup>58</sup> Household savings deposits and consumer loans were largely handled by savings banks, savings and loan associations, and credit unions.

In the postwar period commercial banks had far more assets but their assets grew slower than those of thrifts and credit unions. Commercial banks faced an erosion of their traditional markets; their largest corporate customers often turned to the commercial paper market, and smaller ones frequently sought out commercial finance companies. Because of the prohibition on interest payments on demand deposits, corporate treasurers began placing liquid funds in higher yielding assets, such as commercial paper and Treasury Bills.<sup>59</sup>

Counterbalancing the erosion of the corporate markets, commercial banks found that consumer deposits and loans were much more important. Consumer deposits provided a lower cost source of funds and commercial banks aggressively pursued both the consumer deposit and credit markets. The shift from noninterest-bearing demand deposits to interest-bearing savings and time deposits raised banks' costs of obtaining funds, even though passbook rates were controlled under Regulation Q. As the ceiling rates were raised, the difference between passbook rates at thrifts and banks narrowed, so in 1966 Congress mandated a 0.5 percent higher ceiling rate (reduced to 0.25 percent in 1975) for thrifts.<sup>60</sup>

The 1970s ushered in new competition for banks and thrifts. The thrift institutions began to behave much more like banks by edging into banks' traditional market for demand deposits. Money market mutual funds developed to provide consumers with income-earning deposits that also included limited check-writing capabilities. This lured funds away from commercial banks and from thrifts. "Nondeposit financial conglomerates—ranging from insurance, credit card, and brokerage companies to manufacturers and retail chain stores—elected to aggressively challenge banks for both their conventional credit and deposit accounts and for new

service lines, especially in insurance agency, real estate and security brokerage, and loan-servicing activities."<sup>61</sup>

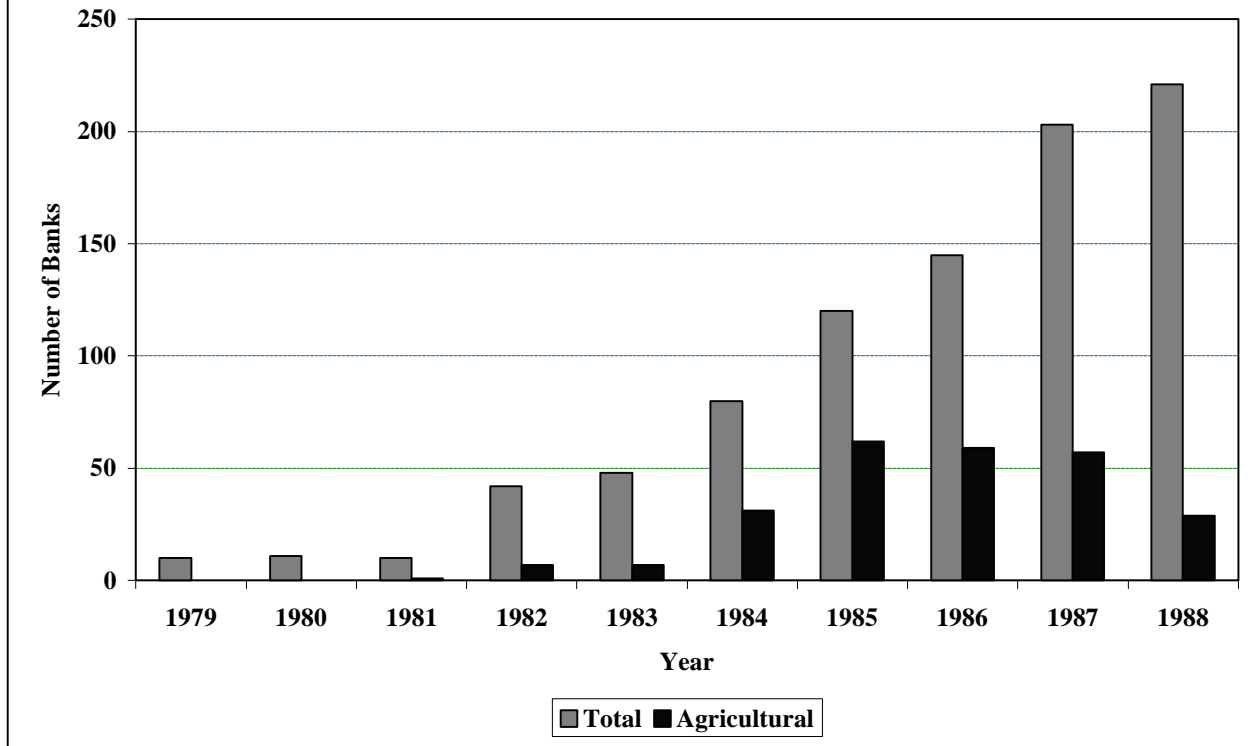
As the rate of inflation increased, nominal interest rates also increased. Thrift institutions do well as long as there is an upward-sloping yield curve and relative rate stability, but when rates begin rising, they encounter difficulty. With their portfolio of long-term assets and short-term deposits, the cost of obtaining funds can rise toward and even surpass the yields of their assets, and this happened in the 1970s. Savings and time deposit rates were capped to try and keep thrifts profitable. Disintermediation led to an outflow of deposits from both thrifts and commercial banks.

Thrifts began offering both variable rate mortgages and new, higher yielding savings certificates requiring larger minimum deposits with penalties for early withdrawal. In 1972 a Massachusetts savings bank introduced a Negotiable Order of Withdrawal (NOW) account—essentially a checking deposit that paid interest. Other thrifts in the northeast followed suit and credit unions began offering Share Drafts. By the end of the 1970s, these were spreading to other regions. Commercial banks responded by creating automatic funds transfer services (ATS), which transferred money from savings accounts to checking accounts to allow depositors to earn interest on some of their deposits. Money market mutual funds, also introduced in 1972, grew during the 1970s.<sup>62</sup> The number of money market mutual funds began to grow rapidly in 1978 as open-market interest rates rose. "By year-end 1979, money-fund assets totaled \$45 billion and then spiraled upward to exceed \$200 billion in 1982."<sup>63</sup> Other types of specialized funds were created in their wake.

Commercial banks complained that rulings allowing thrifts to offer interest-paying checking accounts (NOWs) and higher interest rates on savings accounts had left them at a disadvantage. Thrifts complained that they were not allowed to develop an adequately diversified asset portfolio. State-chartered banks that were members of the Federal Reserve System had been dropping their memberships, and an increasing number of national banks began converting to less restrictive state charters and dropping Federal Reserve membership. The Fed became increasingly concerned that its ability to exercise monetary policy was being undermined by these trends. In response, in 1980 Congress passed the Depository Institutions Deregulation and Monetary Control Act (DIDMCA) and, in 1982, the Garn-St. Germain Depository Institutions Act.<sup>64</sup>

DIDMCA required *all* depository institutions to have the same reserve requirements, as

**Fig. 13.6. Banks Closed or Assisted**



set by the Fed, and granted all depository institutions access to the Fed's discount window. Commercial banks were allowed to offer NOW accounts as well as automatic transfer services, and in the middle of 1983 the Depository Institutions Deregulation Committee recommended that Congress repeal the prohibitions on interest payments on demand deposits.<sup>65</sup> Interest rate ceilings on time and savings deposits for thrifts and commercial banks were to be equalized by 1984 and phased out by 1986. Thrifts were allowed to offer consumer and commercial loans, credit cards, and trust services. The maximum size of FDIC- and FSLIC-insured individual deposits was raised to \$100,000 from the \$40,000 limit set in 1978.

The Garn-St. Germain Depository Act was passed in October of 1982 in response to the plight of the banks and thrifts in the 1980-82 period. They were given expanded lending and investment powers and allowed to offer new deposits. It also gave "the Bank Board the authority to arrange mergers of failing thrifts with other thrifts, commercial banks, savings and loan holding companies, bank holding companies, and nondepository companies."<sup>66</sup> A program was established to provide capital assistance for thrifts with seriously low net worths. The act authorized banks and savings and loans to offer Money Market Deposit Accounts (MMDAs) to

compete with the Money Market Mutual Funds' share accounts. These new accounts were extraordinarily successful and "by May 1983, approximately six months after their inauguration, MMDA volume exceeded \$300 billion—roughly half the size of the nation's narrowly defined (M1) money supply."<sup>67</sup>

The financial crisis that had brought about the Garn-St. Germain Act extended back into the early 1970s. The rising inflation rates and severe recession of 1974-75 had increased the number of failing and problem banks. From 1970 through 1981, there were an average of 262 problem banks each year. With the onset of new, more severe recessions in 1980 and 1981, bank failures increased, especially among banks that had become involved in energy loans. The banking crisis grew worse in the 1980s. As Figure 13.6 shows, the number of banks closed or assisted grew throughout the 1980s.

The 1980s were even worse for the thrifts; they experienced two crisis periods, 1979 to 1982 and 1987 to 1992. The rising interest rates on deposits, combined with lower yields on their mortgage portfolios, had progressively squeezed the thrifts' earnings during the 1970s, and the thrifts were in a weakened condition by 1979. There were rapid increases in interest rates from 1979 through 1981, and in 1981 and 1982 FSLIC-insured thrift institutions as a group had net losses of 14.3 and 15

percent of the previous year's regulatory net worth.<sup>68</sup> The regulatory net worth of these institutions declined by 24.5 percent from 1980 to 1983, and in 1982, 252 FSLIC-insured institutions, or 7.5 percent of their total number, failed. The largest number of insured thrifts to fail in a single year prior to that was 13 in 1941. Between 1980 and 1986 664 thrifts failed.<sup>69</sup> Voluntary and supervised thrift mergers rose sharply. As interest rates declined in 1982, thrifts returned to profitability, but the initial damage had been done.

Although the number of failures declined, the number of insolvent thrifts continued to rise due to the erosion of their net worths. Because of the FSLIC's reduced reserves (necessary to close insolvent thrifts) the Federal Home Loan Bank Board changed its accounting practices to allow thrifts to spread their losses on asset sales over the remaining life of the assets sold.<sup>70</sup> They reduced the minimum net worth requirements from 5 percent in 1979 to 3 percent in 1982 and, until March of 1985, allowed the use of "five-year averaging" and "twenty-year phase-in" to further reduce the regulatory net worth of the thrifts.<sup>71</sup> Although this reduced the number of technically insolvent thrifts requiring FSLIC merger or liquidation, it did nothing to alleviate the actual financial problems.

Between 1982 and 1987 several disturbing trends developed. Thrifts began to make greater use of Jumbo deposits (large CD's over \$100,000) and brokered deposits of \$100,000, the maximum individual amount insured by the FSLIC. These carried higher interest rates, particularly after full interest rate deregulation in 1986, and this "hot money" was subject to much more sudden withdrawal. This, combined with reduced net worth requirements, accounting techniques created to maximize short-run income and regulatory net worth, and failure to close the growing number of effectively insolvent institutions, induced institutional gambling and brought on a new crisis.

Individual deposits were FSLIC guaranteed up to \$100,000, and the FSLIC insurance costs did not differentiate between "safe" and "risky" thrift institutions. The only hope to regain solvency was to grow in order to gain the additional assets that could generate the income to become solvent. To grow, the thrifts had to pay above-market interest rates to get Jumbo and brokered CDs, then invest in riskier assets that could, if successful, generate the income to again become solvent.<sup>72</sup> The process of adverse selection meant that the fastest growing thrifts were the riskiest insolvent thrifts, and this accelerated the potential future cost to the FSLIC.<sup>73</sup> The decline in the rate of inflation and the depression in energy-related activities in the southwest caused real estate prices to

begin falling. By 1987 there was evidence of serious excess construction of commercial and apartment property in the southeast and southwest, especially Texas and Oklahoma. In early 1987 the General Accounting Office (GAO) declared FSLIC insolvent.<sup>74</sup>

By 1986 it was clear that conditions were worsening rather than improving in the thrift industry, and the Federal Home Loan Bank Board and U.S. Treasury developed a plan to raise funds through the Federal Home Loan Bank to provide capital for the FSLIC to close insolvent institutions and dispose of their assets. The initial legislation of 1987—the Financial Institutions Competitive Equality Act—was authorized, raising only \$10.8 billion.<sup>75</sup> By late 1987 official estimates of the amounts required to bail out the thrift industry had risen to \$15 billion. The Federal Home Loan Bank's "Southwest Plan" provided large tax breaks and subsidies to entice private investors to take over insolvent thrifts in Oklahoma and Texas.

As more information became available, the size of the bailout began growing, reaching \$40-\$50 billion by the middle of 1989. On August 9, 1989, a \$50 billion savings and loan bailout bill was signed. A new agency, the Resolution Trust Corporation (RTC) was created to sell \$30 billion in 30-year bonds to help cover the costs of closing or selling insolvent thrifts. The Treasury was to contribute \$18.8 billion and the FHLB \$1.2 billion. The RTC took possession of all thrifts insolvent as of January 1, 1989, and all thrifts declared insolvent after that date to dispose of their assets. Thrift industry insurance premiums were increased, and a new Savings Association Insurance Fund (SAIF) and a new Bank Insurance Fund (BIF) were established to replace the FSLIC; both were controlled by the FDIC. Tougher capital requirements were imposed, and new uniform capital accounting standards were to be developed to enforce them. Thrifts were also no longer allowed to make huge, unsecured loans to a single borrower.

The estimated size of the S&L bailout continued to mount as insolvency grew, and the RTC was slow to dispose of the assets of the seized thrifts. In November of 1990, the cost of bailing out the S&L industry, *excluding* any interest costs on the money borrowed, was estimated at \$178 to \$200 billion.<sup>76</sup> By August 1991, the estimate of the cost had risen to \$230 billion.<sup>77</sup> Charges of incompetence and capricious regulation by the RTC were common.<sup>78</sup>

### *Credit Cards*

Credit cards date to just prior to the First World War and began as an extension of the traditional consumer credit that had always been provided by American

merchants.<sup>79</sup> In 1914 some large retail stores began issuing cards to their wealthiest customers and in 1928 began issuing "charga-plates," which were embossed metal address plates to identify charging customers and facilitate mailing bills and keeping records. By the late 1920s gasoline companies began issuing courtesy cards for purchases at their stations. Between 1928 and 1958 retailers developed a number of innovations in credit cards such as minimum monthly payments on the unpaid balance, initially set at one sixth thereof; finance charges on the unpaid balance each month; and the thirty-day grace period on finance charges.

The first universal card—the Diners Club Card—began in 1949. For the first time a company acted as an intermediary between the merchant and the consumer and charged each a fee for the service. These credit cards came to be called Travel and Entertainment (T&E) cards. American Express, worried about competition to its profitable travelers' cheque business, established its T&E card in 1958, the same year that the Hilton Hotel Corporation launched its Carte Blanche card, and the nation's two largest banks, Bank of America and Chase Manhattan, started their own credit card operations.

The primary obstacle to the acceptance and use of universal credit cards was the lack of a national network. To solve this problem, Bank of America licensed its BankAmericard across the United States in 1966. Sensing the competition, several other large banks joined together to counter BankAmericard by creating the Interbank Card Association. In 1976 BankAmericard changed its name to Visa; somewhat earlier, Interbank Card had become Master Charge, and in 1980 it switched names again to become MasterCard. Unsolicited mass mailings of the cards and marketing blitzes in the late 1960s increased the installed cardholder bases.<sup>80</sup> In 1973 retail cards were over half of all credit cards, however, the use of bank credit cards grew rapidly during the 1970s. During the 1980s major retailers began to accept the bank credit cards in addition to their own retail credit cards, and by 1986, 55 percent of all families had at least one bank credit card.

Through the 1970s bank credit cards were only marginally profitable, and much less so than the T&E credit cards. Interest rates on unpaid balances on credit card accounts rose along with other interest rates at the end of the 1970s and in the early 1980s. As interest rates fell after 1982, credit card interest rates fell less swiftly. Banks and other card issuers realized that the easy access to an unsecured line of credit, combined with the generally small unpaid balances, made the demand for the cards' credit relatively interest inelastic. Bank credit cards became

an increasingly profitable business in the 1980s and, by the end of the decade, an important source of banks' earnings.

By the end of the 1980s, electronic funds transfers (EFTs) were taking away some of the credit cards' business. The debit cards could obtain cash from automated teller machines and be used at participating merchants to make the payment directly from checking accounts. However, due to the easy access to credit, it was not expected that credit cards would disappear.

### *Insurance*

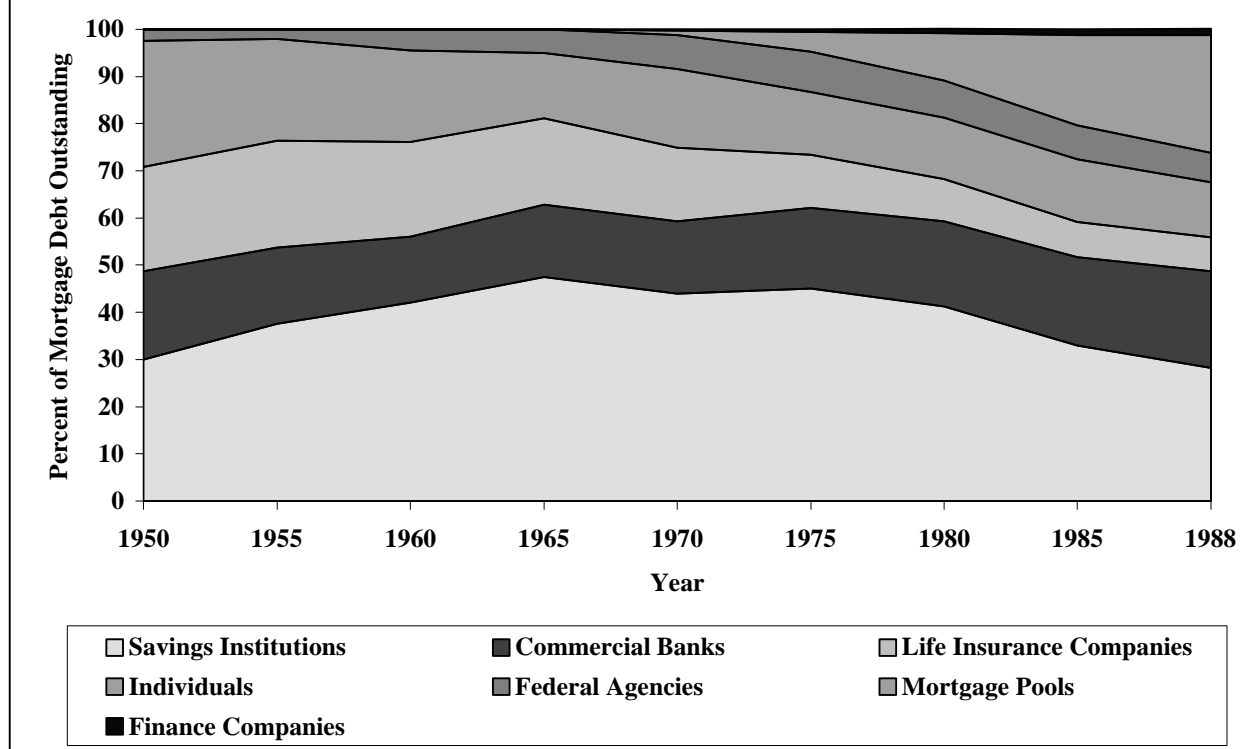
The private insurance industry in the United States is a vast enterprise affecting nearly every person in our society. It is composed of companies providing life, property, casualty, health, and other types of insurance, with many companies providing more than one type of insurance coverage. Our primary interest is in life insurance because of its role in the financial markets. Whole life insurance policies and many term policies have provided investment vehicles for the individuals insured and given life insurance companies funds to invest.

In the depressed thirties and during the Second World War, life insurance companies had become major investors in federal government securities, and nearly 25 percent of their assets were still invested in government securities in 1950. They continued to be an important source of corporate funds as they generally held from 36 to 41 percent of their assets in corporate bonds, and their corporate stock holdings rose from 3.3 to 9 percent. The other important asset owned by life insurance companies is mortgages. This share of their assets rose through 1965 and has since declined from 37.8 percent to 20 percent as new competitors for mortgages—especially mortgage pools and trusts—arose. (See Figure 13.7.) Despite this decline, life insurance companies continue to be important sources of funds for mortgage and corporate lending.

### *Securities Markets*

The securities markets raise new capital through the sale of bonds and stocks and handle the transfer of ownership of existing bonds and shares of stock. In the postwar period the New York Stock Exchange has continued to dominate all other organized securities exchanges.<sup>81</sup> Figure 13.8 shows the real and current price Standard and Poor's common stock index for the New York Stock Exchange.<sup>82</sup> The nominal stock price indexes show a tremendous growth over the entire period, but this is not so for the real price index, which fell 66.4 percent from 1965 to 1980 and rose 44.6 percent from 1980 to 1988.

**Fig. 13.7. Shares of Mortgage Debt Outstanding by Type of Holder**



The volume of trading on the NYSE grew dramatically during the 1980s. (See Figure 13.9.) The trading volume had remained low from the depressed 1930s through the first half of the 1960s but began to pick up in the late 1960s when the record for the monthly trading volume set in October 1929 was surpassed by the 45 million shares exchanged in October 1965.<sup>83</sup>

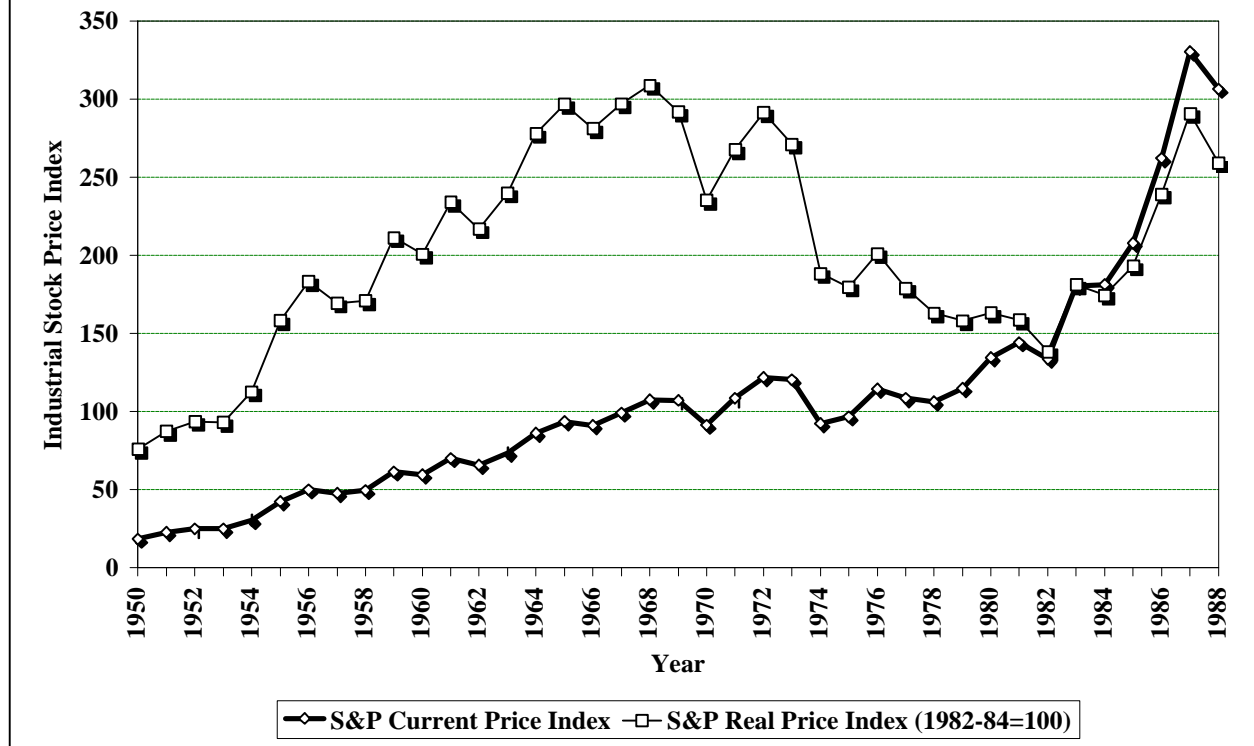
Aiding this increase in volume was a change in the nature of trading. Prior to the Second World War the bulk of all trading had been undertaken by individual traders. After the war institutional investors—mutual funds, trusts, pension funds, insurance portfolios, and foundations—began playing a more important role. In the 1950s "institutional holdings of all stocks had risen from 12.5 per cent of all equities to almost 20 percent."<sup>84</sup> By 1969 institutional investors engaged in 60 percent of the dollar volume of public transactions. Their influence continued to grow into the 1980s, when computer-programmed trades would buy and sell thousands of shares at a time when predetermined prices were reached.

Stock prices and trading activity remained low from the end of the Second World War to the beginning of the Eisenhower bull market in September of 1953. In December of that year the Dow Jones Index finally exceeded the level reached

in September of 1929 and continued rising to peak at 760 in September of 1961. By December of 1963, stock prices were again rising and continued to rise until a new peak of 1,001 was reached on February 9, 1966. The "go-go" market of 1967 to 1969 did not quite bring prices back to the 1,000 level. The dominant characteristic of this bull market was a sharp rise in the volume of trading, particularly in 1968.<sup>85</sup> There are various reasons suggested for the go-go market of the late 1960s. The economy was growing and in the midst of a long continuing expansion. In 1964 there were substantial cuts in federal income tax rates, and the Federal Reserve System began to increase the stock of money at a faster rate. Generally the end of the boom was attributed to President Johnson's 1968 surtax and the FRS switch to a tighter monetary policy in late 1968, actions that foretold the end of the 1960s expansion.

Prices dropped and activity declined in 1969 and 1970, and prices rose little in nominal terms during the rest of the 1970s. In the early 1970s fixed common broker fees were eliminated to allow transactions fees to be competitively set, and the price of a seat on the NYSE declined sharply, at one point becoming less expensive than the purchase of a New York City taxicab medallion. There is no satisfactory explanation for the failure of stock prices to rise during the 1970s.

**Fig. 13.8. Standard and Poor's Industrial Stock Price Index**



Late in 1982 a new bull market developed. Between August 12, 1982, and August 25, 1987, the Dow Jones Index rose from 777 to 2,722. By 1987, 200-million-share days were common. The most commonly offered reasons for the five-year boom were the long expansion, which in fact continued until 1990; the sharp declines in the rate of price inflation; and the tax cuts of 1981 and 1986.

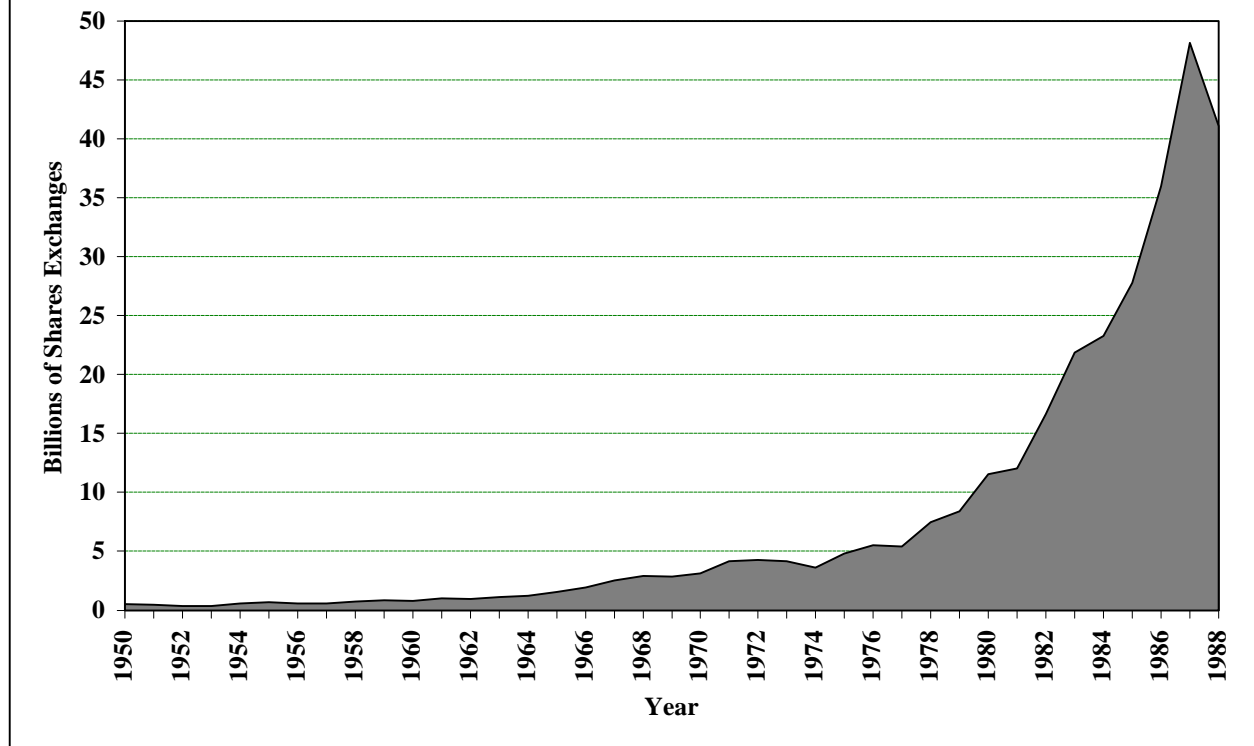
From the August 25 peak, prices began to decline, and by the end of Thursday, October 15, the DJI stood at 2,355. On Friday, October 16, the index fell 108 points on a volume of 338.48 million shares. On Monday, October 19, 1987, the full force of the hurricane of selling was felt as the DJI fell 508 points on a volume of 604.33 million shares. The percentage decline was larger than either Black Thursday or Tragic Tuesday during the October, 1929, crash. From the opening on Monday, October 12, to the close on Monday, October 19, the DJI fell 743 points, wiping out all of the 1987 gains.

The Federal Reserve System moved quickly to pump liquidity into the system, and the federal funds rate, a key barometer of monetary conditions fell from 7.5 percent on Monday to 6.75 percent on Tuesday. The Fed's monetary ease helped stabilize the stock market and enabled banks to provide liquidity to customers.

The New York Stock Exchange moved quickly to curb computer-programmed trading, which many blamed for the severity of the crash. Three smaller securities firms closed, and a fourth one had to be taken over in the aftermath of the crash. Thousands of employees at Wall Street financial firms were laid off over the next several years. Firms that had been planning on equity offerings canceled their plans, and a number of large firms announced plans to begin buying equity back because of the low prices on their stocks. Some drew remarkable and eerie parallels with the bull market of the 1920s and crash of the market in 1929 and publicly worried about a depression such as had occurred in the early 1930s. However, real economic activity was remarkably unaffected, and stock prices began to recover, but at a slower pace. In 1989 the Dow Jones Index surpassed the August 25, 1987, peak and in 1991 surpassed the 3,000 level.

Many reasons were proposed for the decline. One commonly accepted explanation was that the House Ways and Means Committee had just agreed to a bill to control leveraged buyouts and stop company takeovers, an activity that had boosted the stock market during the boom.<sup>86</sup> Other factors supposedly included disappointing news on the twin deficits (federal budget and international trade) and the Federal Reserve System's tightening of the money

**Fig. 13.9. Shares Traded on the New York Stock Exchange**



supply between March and September of 1987 to raise interest rates and attempt to stop the fall of the dollar in foreign exchange markets.<sup>87</sup>

Whatever the exact reasons that initiated the stock sell-off, most attributed the severity of the decline and the astonishingly large volume to programmed trades, which resulted in huge sell (or buy) orders once the predetermined prices were reached. The NYSE and the SEC set up rules to eliminate the resulting huge volatility.

### ***Changes in Financial Markets in the Postwar American Economy***

In the wake of the financial disasters of the Great Depression, government authorities attempted to segregate types of financial institutions and control interest rates in order to reduce competition between financial intermediaries and bring stability to the financial structure. In the postwar period these changes disintegrated.

Generally these changes in the financial markets increased consumer welfare by bringing about the payment of interest on their demand deposits and removing interest rate ceilings on other consumer deposits. Though increasing competition for consumer loans tended to lower loan rates, rising costs of funds reduced the supply of consumer loans, providing an offsetting force on consumer loan rates.

The rapidly rising use of credit and debit cards lowered the costs of making transactions and facilitated record keeping, generally enhancing consumer welfare, though some experienced difficulty because of the easy access to an unsecured line of credit.

These postwar changes also benefited business firms. The ability to generate income on cash balances and access to lower cost borrowed funds reduced firms' costs. The boom in the securities markets in the 1960s and again in the 1980s provided corporations with lower cost funds for expansion. In particular, in the 1980s the sale of lower grade bonds provided funds for expansion and both friendly and unfriendly acquisitions, fueling the great merger wave of the 1980s.<sup>88</sup> The great stock market crash of 1987 reduced this activity, but there was no depression as the expansion, which had begun in 1982, continued, and the Federal Reserve System quickly and vigorously acted to provide liquidity in the aftermath of the crash. By 1990 the securities markets had fully recovered from the 1987 stock market crash.

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## Notes

1. Edwin Emery and Michael Emery, *The Press and America*, 4th ed. (Englewood Cliffs, NJ: Prentice-Hall, 1978), 436.
2. Peter Benjaminson, *Death in the Afternoon: America's Newspaper Giants Struggle for Survival* (Kansas City: Andrews, McMeel & Parker, 1984), viii-x.
3. Krystal Miller, "Red Ink: Detroit's Dailies Upset Idea that Profits Flow When Papers Link Up: Rate Rises, Delivery Snafus Send Many Advertisers, Readers to Suburban Press," *The Wall Street Journal*, 14 November, 1991. JOAs did not save afternoon papers in Shreveport, Louisiana and in Miami.
4. *Ibid.*, 440.
5. *Ibid.*, 437.
6. Andrew F. Inglis, *Behind the Tube: A History of Broadcasting Technology and Business* (Boston: Focal Press, 1990), 59. Most of the discussion of AM radio is drawn from chapter 2 of this source, especially, pp. 59-60.
7. *Ibid.*, 60. In current dollars the figures were \$240,000 in 1946 and \$145,000 in 1956.
8. Vincent Mosco, *Broadcasting in the United States: Innovative Challenge and Organizational Control* (Norwood, NJ: Ablex Publishing Co. 1979), 52.
9. Inglis, *Behind the Tube*, 128-29.
10. *Cochannel interference* means that the signals from two stations operating on the same frequency overlap or interfere with each other. For example, suppose that an FM station in Milwaukee, Wisconsin, and one in Madison, Wisconsin, each operated at 98.3 MHz. Unless station power is properly limited, listeners between the two cities would not be able to pick up either station due to cochannel (or signal) interference. An FCC engineer, Kenneth Norton, was the driving force behind the frequency shift.
11. Mosco, *Broadcasting in the United States*, 56.
12. *Ibid.*, 61.
13. Inglis, *Behind the Tube*, 145.



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14. Ibid., 190-93 and 237-72.
15. Ibid., 193.
16. Ibid., 194.
17. "For example, in Chicago commercial channels were reduced from 7 to 4, in San Francisco from 7 to 4, in Boston from 5 to 3, in Cleveland from 5 to 3, in Dallas/Fort Worth from 6 to 4, in Houston from 4 to 2, in San Diego from 4 to 2, and in Scranton/Wilkes-Barre from 4 to 0." Inglis, *Behind the Tube*, 200.
18. Ibid., 201.
19. Mosco, *Broadcasting in the United States*, 70-84.
20. Much of the following discussion draws upon Stewart L. Long, "Television Network Development: The Early Years," *Business and Economic History: Papers Presented at the Twenty-Third Annual Meeting of the Business History Conference*, 2d series, 6 (1977): 69-83.
21. With deintermixture, cities would have gained only VHF or UHF signal allocations. This would have allowed more VHF channels in each city that had only VHF channels. UHF channels were not so limited.
22. Inglis, *Behind the Tube*, 200. See also Long, "Television Network Development," 79-81.
23. Long, "Television Network Development," 81. As a final insult, AT&T required DuMont to purchase the same audio facilities as NBC, CBS, and ABC did for their radio networks, even though DuMont had no radio network.
24. Ibid., 81.
25. Inglis, *Behind the Tube*, 209.
26. Ibid., 207.
27. The following discussion of cable television draws principally upon the following sources: Inglis, *Behind the Tube*, 360-391; Thomas F. Baldwin and D. Stevens McVoy, *Cable Communication*, 2d ed. (Englewood Cliffs, NJ: Prentice-Hall, 1988), 2-7 and 174-91; Vernone Sparkes, "Cable Television in the United States: A Story of Continuing Growth and Change," in Realph M. Negrine, ed., *Cable Television and the Future of Broadcasting* (New York: St. Martin's Press, 1985).
28. "Superstations" were local stations that broadcast all over the United States by means of microwave cable transmission. The primary superstations were WWOR of New York, WGN of Chicago, and WTBS of Atlanta. The leader in the creation of cable networks was Time Inc.'s Home Box Office (HBO), which first aired on September 20, 1975.
29. See the following articles: Laura Landro, "Airing Grievances: As Cable-TV Industry Keeps Growing, Rivals Demand Reregulation: Broadcasters and Others Call The Competition Unfair, And Utilities Want Shares," *The Wall Street Journal*, 17 September, 1987; John R. Emshwiller, "Prying Open the Cable-TV Monopolies: Prices, Lawsuits Place Pressure On the Industry," *The Wall Street Journal*, 10 August, 1989; Mary Lu Carnevale, "Danforth Proposes Bill to Reregulate Cable-TV Rates," *The Wall Street Journal*, 16 November, 1989; Thomas W. Hazlett, "Who's Behind the Cable Scam," *The Wall Street Journal*, 30 March, 1990; Laura Landro, "Despite a Robust Basic Business, Picture is Flawed for Cable TV," *The Wall Street Journal*, 21 March, 1991.
30. The Continental Congress legislated a federal post office and this monopoly legislation was carried forward into the Constitution.
31. Douglas K. Adie, *An Evaluation of Postal Service Wage Rates* (Washington, D.C.: American Enterprise Institute for Public Policy Research, 1977), 1.
32. Ibid., 30-32. See also John Haldi, *Postal Monopoly* (Washington, D.C.: American Enterprise Institute for Public Policy, 1974); and Morton S. Baratz, *The Economics of the Postal Service* (Washington, D.C.: Public Affairs Press, 1962).
33. A letter mailed in, say, Milwaukee, to another address in Milwaukee does not cost as much to deliver as a letter mailed in Milwaukee to be delivered to an address in, say, San Francisco. Because the price is the same, this amounts to price discrimination where the intracity sender is subsidizing the interstate sender.
34. Adie, *An Evaluation of Postal Service Wage Rates*, 91. James Bovard reported that nominal wages and benefits for Postal Service workers in December of 1989 averaged \$43,000 and a Postal Inspection Service study found that for mail clerks, Postal Service employees were paid 84 percent more than their state government counterparts. (James Bovard, "Mail Monopoly Says Happy New Year," *The Wall Street Journal*, 29 December, 1989.)
35. James Bovard, "'On-Time Delivery:' The Great Mail Fraud," *The Wall Street Journal*, 30 January, 1991. The following data are taken from this article.
36. Peter Temin, *The Fall of the Bell System* (New York: Cambridge University Press, 1987), 20.

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37. In 1947 three scientists at Bell Laboratories, William Shockley, John Bardeen, and Walter H. Brattan, developed the transistor for which they were awarded the Nobel Prize in 1956. (John Brooks, *Telephone: The First Hundred Years* (New York: Harper and Row, 1976), 222-23.)
38. *Ibid.*, 267.
39. *Ibid.*, 266.
40. *Ibid.*, 292.
41. Temin, *The Fall of the Bell System*, 4-5.
42. Harry M. Shooshan III, "The Bell Breakup: Putting It In Perspective," in Harry M. Shooshan III, ed., *Disconnecting Bell: The Impact of the AT&T Divestiture* (New York: Pergamon Press, 1984), 8.
43. The distinctions between board-to-board and station-to-station accounting, which were crucial to this, can be explained as follows. The local exchange in, say, Milwaukee has a switch that connects it to the long distance lines. The switch is called a "board." Under the board-to-board accounting of costs, if a party in Milwaukee calls a party in Omaha, the toll call is the board-to-board call between the switches in the two cities and only the costs associated with the board-to-board service are relevant to the toll charge. The Milwaukee party's call to the Milwaukee board is a local call, just as the call received in Omaha from the Omaha board to the Omaha party is a local call. However, under the station-to-station concept the long distance toll call is the entire call from the home of the Milwaukee caller to the home of the Omaha party. The costs of the toll call therefore include some of the costs associated with providing local service. The problem was to separate those costs that were local from those that were long distance when using the station-to-station cost accounting approach. There was no such problem with the board-to-board approach. Complicating this was the fact that a significant portion of the local companies' costs were fixed (or possession), costs which did not vary with use. Any allocation of possession costs between local and long distance service was completely arbitrary. By 1947 the Bell system had developed a *Separations Manual* to direct the process of separating these costs. (Temin, *The Fall of the Bell System*, 23.)
44. *Ibid.*, 26 and 306.
45. *Ibid.*, 24.
46. Richard E. Wiley, "The End of Monopoly: Regulatory Change and the Promotion of Competition," in Shooshan, ed., *Disconnecting Bell: The Impact of the AT&T Divestiture*, 31.
47. *Ibid.*, 33. The FCC declared the Hi-Lo tariff null and void in 1976.
48. Wiley, "The End of Monopoly," 35-36.
49. *Ibid.*, 36.
50. Temin, *The Fall of the Bell System*, 137.
51. Wiley, "The End of Monopoly," 36-37.
52. Temin, *The Fall of the Bell System*, 138-39 and 315.
53. *Ibid.*, 332.
54. Previously only AT&T had this. AT&T long distance users only had to dial 1, the area code, and the phone number to reach their party. Users of other long distance carriers had first to dial a local phone number for the long distance carrier, then dial the area code and phone number of the party being called.
55. *Ibid.*, 311.
56. For example, see the following articles: Robert W. Crandall, "Local Phone Rates Catch Up With Costs," *The Wall Street Journal*, 27 February, 1987; Bill Richards, "Country Blues: Deregulation Raises Prices, Cuts Services In Many Rural Areas: Phone Bill of Mrs. McGinnis Is Up 300% in Nebraska; A Sick Man Misses the Bus," *The Wall Street Journal*, 5 October, 1987.
57. Manley R. Irwin, "The Telecommunications Industry," in Walter Adams, ed., *The Structure of American Industry*, 8th ed. (New York: Macmillan Publishing Co., 1990), 250-51.
58. Benjamin J. Klebaner, *American Commercial Banking: A History* (Boston: Twayne Publishers, 1990), 214.
59. Peter S. Rose, *The Changing Structure of American Banking* (New York: Columbia University Press, 1987), 6-7.
60. Klebaner, *American Commercial Banking*, 217.
61. Rose, *The Changing Structure of American Banking*, 26.
62. R. Dan Brumbaugh, Jr., *Thrifts Under Siege: Restoring Order to American Banking* (Cambridge, MA: Ballinger Publishing Company, 1988), 15.

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63. Rose, *The Changing Structure of American Banking*, 313.
64. *Ibid.*, chapter 12, especially pp. 364-70.
65. *Ibid.*, 364.
66. Brumbaugh, *Thrifts Under Siege*, 151; see also pp. 15-20, 47-48, 76, 151-52, and 156-58 for related information.
67. Rose, *The Changing Structure of American Banking*, 368.
68. Brumbaugh, *Thrifts Under Siege*, 38. Most of the following information and data are drawn from chapters 2 and 3 of this book.
69. *Ibid.*, 39.
70. *Ibid.*, 43-44.
71. See *Ibid.*, 47 for a discussion of these techniques.
72. Edward J. Kane, *The S & L Insurance Mess: How Did It Happen?* (Washington, D.C.: The Urban Institute Press, 1989), 4. Such riskier assets included construction, acquisition, and development loans as compared to mortgage loans.
73. An early indication of the results of regulatory gambling came in Ohio and Maryland in 1985. (Kane, *The S & L Insurance Mess*, chapter 5 discusses this in some detail.)
74. Brumbaugh, *Thrifts Under Siege*, 51.
75. *Ibid.*, 80.
76. Paulette Thomas and Thomas E. Ricks, "Tracing the Billions: Just What Happened To All That Money Savings & Loans Lost?: Most Went, Not to Crooks, But to Investors, Builders, Savers—and Homeowners," *The Wall Street Journal*, 5 November, 1990.
77. Charles McCoy, "Bad Bets: Many Big S&L Losses Turn Out to Be Due To a Financial Gamble: 'Risk-Controlled Arbitrage' Was Sold by Wall Street And Backed by Regulators," *The Wall Street Journal*, 9 August, 1991.
78. For example, see, "At Franklin Savings: Capricious Regulation," *The Wall Street Journal*, 19 September, 1990. Also see the August 19, 1991 episode of the PBS television show, *Frontline*, "The Savings and Loan Mess."
79. The information and data in this section are drawn from Lewis Mandell, *The Credit Card Industry: A History* (Boston: Twayne Publishers, 1990).
80. In 1970 the FTC banned such unsolicited credit card mailings. In 1972 the Fair Credit Billing Act provided protective legislation for cardholders and directed the Fed to regulate the credit card companies. The 1973 Federal Privacy Act protected cardholders from unauthorized use of their credit records, and the 1977 Equal Credit Opportunity Act prohibited discriminatory practices in issuing or denying credit.
81. This section draws upon the following sources: Robert Sobel, *The Big Board: A History of the New York Stock Market* (New York: The Free Press, 1965), and *Amex: A History of the American Stock Exchange, 1921-1971* (New York: Weybright and Talley, 1972); John Brooks, *The Go-Go Years* (New York: Weybright and Talley, 1972); and newspaper articles from *The Wall Street Journal*.
82. The Standard and Poor's common stock price index covers a broad selection of 500 stocks.
83. Brooks, *The Go-Go Years*, 100.
84. Sobel, *The Big Board*, 331.
85. Brooks, *The Go-Go Years*, 195.
86. Robert L. Bartley, "1929 and All That," *The Wall Street Journal*, 24 November, 1987. See also Susan Lee, "Efficient Market Theory Lives!" *The Wall Street Journal*, 6 May, 1988. A more detailed presentation of this explanation is found in Mark Mitchell, "Triggering the 1987 Stock Market Crash," *Journal of Financial Economics*, 24 (September 1989): 37-68. Black Monday was reviewed five years later in articles in the "Money and Investing" section of the 16 October, 1992 edition of *The Wall Street Journal*. The 1987 crash was also examined in a symposium on the "Brady Commission Report on the October 1987 Stock Market Crash," *The Journal of Economic Perspectives* 2 (Summer 1988): 3-50.
87. For example see the following: David Schwartzman, *Economic Policy: An Agenda for the Nineties* (New York: Praeger, 1989); Charles Kindleberger, "The 1930's and 1980's: Parallels and Differences," *Banca-Nazionale-del-Lavoro-Quarterly-Review* (June 1988): 134-45. Other analyses are included in the book *Black Monday and the Future of Financial Markets*, Mid-America Institute for Public Policy Research (Homewood, IL: Dow Jones-Irwin, 1989).

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88. Lower grade bonds are often called "junk" bonds as compared to "investment" grade bonds, which are assigned lower risks of default.