Banking in Transition

by

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In August of 1985 I cashed a check in the lobby of one of the largest banks in New Orleans. I proceeded upstairs to make the final payment on my auto loan, where a beaming white-haired gentleman carefully initialed and stamped my payment book as he had thirty-five times before. Not fifteen feet away stood the desk where my Department Chairman had vouched for my character and prospects, and my loan had been approved with no questions asked. Turning to depart, I walked past the polished oaken doors of the Trust Department. Perhaps one day, with money to invest, I would gain admission to this inner sanctum.

This story sounds oddly dated. Yet this bank was a financial supermarket that could meet virtually all of the transactions, savings and borrowing needs of household customers throughout their life cycles. One had to walk half a block to buy one's insurance, but this was not particularly burdensome. With the exception of underwriting securities, the bank could and did perform most of the financial services required by a wide range of business customers serving the diverse economy of the Port of New Orleans.

My New Orleans Bank has several qualities that seem outdated. These include the reliance on face-to-face relationships and the unsophisticated loan-servicing technology. Even more central to the impression of quaintness, I believe, is the lack of specialization. In my story, all the steps of financial intermediation from loan origination to funding to servicing are performed in one physical place by a few people. This bank is analogous in many ways to the old-time country "general store".

The bank as general store is slowly being replaced by the bank as conglomerate. This is happening because improvements in information technology and market efficiency are changing the way the separate activities that comprise financial intermediation are

performed. The imperatives of cost minimization and competition are dictating that activities that once were performed together, in one physical place by a few people, are now performed separately by specialists. In this environment it is natural for entrepreneurs to form conglomerates of these various business units, in order to fulfill the role once played by the bank as general store.

Figure 1 illustrates the evolution of financial intermediation according to this view. Before intermediaries came on the scene, potential lenders and borrowers either did not trade at all (Phase 1) or had to meet face-to-face in a double coincidence of wants (Phase 2). The next stage of evolution is the traditional financial intermediary of money-and-banking textbooks--the bank as general store (Phase 3). It performs all the functions necessary to attract funds from savers and loan the proceeds for productive use. The current stage of financial evolution appears to be towards a more elaborate set of linkages between borrowers and lenders--the bank as conglomerate. By this I mean an entity that delivers financial services through multiple specialized business units.

In the example given here (Phase 4), a saver deposits money in a mutual fund or pension fund, that itself employs potentially several firms to perform various tasks. The fund purchases the paper of a finance company that makes an auto loan, and that in turn resells the loan to an issuer of securities backed by auto loan receivables. The borrower's payments are processed by a specialized servicer and remitted to the issuer's trustee and then to the purchasers of the securities. There are many possible chains of intermediation linking ultimate borrowers with ultimate lenders. The one given in the chart is simply to illustrate the increasing separation of functions, as compared to the "general store" model of banking.

This example might not seem an appropriate illustration of the term "banks as conglomerates," since nowhere did a traditional bank deposit or loan enter the picture. Yet banking organizations can enter the chain of intermediation not only as deposit gatherers or lenders but virtually anywhere in the Chart: by providing most of the services required by mutual funds and pension funds; by affiliating with certain finance companies; by purchasing or issuing asset-backed securities; and by performing loan servicing operations.

This view of financial evolution does not have obvious corollaries for bank market structure. It is not clear where banking organizations will choose to draw corporate lines around the various activities for maximum efficiency. For example, the diseconomies of managing large organizations might make "universal" banking organizations less efficient than organizations choosing to specialize on a few activities; but they might not. Similarly, it is impossible to predict how many independent banks will survive

and how many will be absorbed as branches or affiliates of larger organizations.

It is clear, however, that chains of financial intermediation involving multiple links and multiple specialists will become more important. Adam Smith observed that "The division of labor is limited by the extent of the market." The development of the elaborate linkages pictured in Figure 1 requires broad and deep financial markets and, in conjunction with the appropriate information technology, is their byproduct. Since neither progress in information technology nor the efficiency of financial markets are likely to reverse themselves, "the bank as conglomerate" is likely to grow in importance.

Banking organizations have not been entirely successful in adapting to this process of financial evolution. Their traditional deposit and lending activities have lost market share as other channels of intermediation have grown in importance. Other parts of their business have not grown commensurately, so that on balance banks have a smaller share of financial industry revenues and capital than they did at the beginning of the 1980s.

Many observers of the banking industry are concerned about the decline of bank market share. This concern takes two forms. The first relates to the economic effects of a declining role for banks. Some argue that a declining role for banks will hinder economic or social objectives by making it more difficult for small businesses or some individual borrowers to obtain credit. Others believe that as more intermediation is done outside the deposit insurance safety net, the financial system will become more unstable. A related argument holds that public funds would ultimately be used to cushion the failure of a very large nonbank financial institution, but that these nonbank firms are not being charged for this (perceived) implicit protection through deposit insurance premiums, reserve requirements or extensive supervision.

The second manifestation of concern over banks' declining market share relates to the reasons for the decline. If misguided and excessive regulation is responsible for the decline, there is an issue of fairness and the lack of "a level playing field." Moreover, there is a presumption that changes in economic activity that are brought about by "misguided" regulation must by definition entail some misallocation of economic resources.

A single paper cannot address all these issues. My purpose in what follows is to address two questions. What are the reasons for banks' declining market share and are further declines inevitable? To anticipate the results, I conclude that the declines have been mostly due to market forces, not to regulation, and that further

declines--a "long downward spiral"--[1] are not inevitable.

These issues should be understood in the context of the forces affecting the financial services industry as a whole. The next section provides a brief survey of financial industry trends. This is followed by a market-by-market review of selected banking activities. The purpose of these reviews are to evaluate the relative importance of market forces and regulation in each activity. The final section contains conclusions.

Financial Services Industry Trends

The financial sector is an important component of the U.S. economy, both in terms of the services it provides and in terms of total employment. The finance and insurance sector in the U.S. currently employs over five million people, or almost five percent of the employed workforce.[2] Measured in terms of employment, the sector has increased in relative importance since 1972. Finance and insurance employment as a percentage of the employed workforce increased from 4.3 percent in 1972 to 4.8 percent in 1993, despite a period since 1988 of essentially zero growth in the sector's employment.

The performance of the financial services industry is closely tied to the performance of the economy as a whole (Figure 2). Over the period 1970-1992, changes from one year to the next in market returns for publicly traded financial service firms track extremely closely the changes in market returns for all firms traded on the New York and American stock exchanges.

Despite the close correlation between the stock returns of financial firms and other firms, the asset growth of the financial services industry has far outstripped the growth of the economy as a whole since 1950. The financial assets of private financial institutions increased from about 100 percent of GDP in the early 1950s to close to 250 percent in 1992.[3]

Households were the chief engine for financial sector growth during this period (Table 1). While households' financial assets grew at about the same rate as disposable personal income from 1952 through 1993, the share of their assets invested through financial intermediaries increased dramatically. In 1952 less than 30 percent of household financial assets were invested in deposits, bank trusts, mutual funds, life insurance and pension reserves combined. The remaining 70 percent was invested directly in stocks

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[1] Barth, Brumbaugh and Litan (1992), Chapter 3.

[2] Employment and Earnings, U.S. Department of Labor.

[3] Flow of Funds.

and bonds and, especially, equity in noncorporate business. By 1993 a complete reversal had occurred, with about 60 percent of household financial assets invested through intermediaries and 40 percent held directly.

This shift in household balance sheets has not been entirely exogenous from the standpoint of financial firms. It presumably reflects these firms' increasing comparative advantage in the management of financial portfolios. A combination of more-competitive pricing of financial products, improvements in portfolio management and risk control, and reduced transactions costs resulting from improvements in information technology, have all contributed to an increased willingness of households to entrust the management of their portfolios to intermediaries. In addition, the ability of employees to defer taxes on certain pension contributions has stimulated the rapid growth of pension plan assets managed by intermediaries.

The growth of attractive vehicles for household portfolio management is symptomatic of an underlying increase in competition in financial services. The increased volatility of interest rates in the late 1970s, the "unbundling" of financial services described in the introduction, and certain regulatory changes, encouraged a sharp increase in price competition that required difficult adjustments for traditional financial intermediaries, and not just banks.

Because of this increased price competition, traditional financial intermediaries to some extent shared a common experience from the late 1970s through the early 1990s: market pressures on traditional lines of business, rapid expansion into new activities and subsequent difficulties and contraction. The most extreme example of this pattern involves the experience of the thrift industry, a story that has been well told elsewhere and need not be repeated. In many respects, the causes and nature of the savings and loan crisis cannot be generalized to other industries. Yet in broad outline the same pattern was repeated in less extreme form for other financial intermediaries during the 1980s. In order to emphasize that depository institutions were not the only firms affected by these market forces, it will be useful to review briefly the experience of the life insurance and securities industries.

The life insurance industry enjoyed a prolonged period of stability and relative prosperity throughout much of the post-World War II period. Insurers generally held relatively conservative portfolios of long-term assets. These were well suited to match a stable structure of mostly long-term liabilities arising from insurance policies and annuities. Low and stable market interest rates for the most part discouraged customers from shopping for yields from other financial providers.

With the increasing inflation and interest rates of the 1970s, the life insurance industry began experiencing disintermediation. As market interest rates rose, policy holders in search of higher yields cashed out or exercised their option to obtain policy loans at relatively low regulated rates. The liquidity problems became particularly acute as the 1980s began, when the search for higher yields caused some pension funds to turn away from life insurance companies as fund managers.[4]

As a result of these episodes of disintermediation the life insurance industry began to offer new liability products. Universal life, variable life and other new types of insurance policies essentially unbundled the provision of insurance from the investment vehicle, and provided a market return on investment.[5] This unbundling of functions was instrumental in forcing life insurers into an era of increased price competition on the liability side.

As the cost of attracting life insurance policies increased, insurers placed growing reliance on the pension business. To attract funds from institutional investors, life insurers developed the guaranteed investment contract (GIC), an instrument that allows investors the opportunity to invest funds at a contracted rate for a specified time. Life insurance companies' pension reserves as a fraction of life insurance reserves rose from 25 percent in 1955, to 90 percent in 1980, to 220 percent of life insurance reserves by 1992.[6] This changing mix reduced the importance of the traditional revenue source, life insurance premiums. In 1965 life insurance premiums outweighed annuity considerations by more than seven-to-one as a revenue source for the industry. By 1980 the gap had closed to less than two-to-one, and as of 1991 annuity considerations exceeded life insurance premiums by more than 50 percent.[7]

The new liability products were accompanied by changes on the asset side of the balance sheet. Maturities of assets were shortened to more closely match the maturities of the increasingly interest-sensitive liabilities. To satisfy pressures for higher yields, riskier assets were put on the books and rapid growth ensued: the assets of the life insurance industry grew at a rate of almost 12 percent per year from the beginning of the 1980s through

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[4] Wright (1991), p. 98.

[5] For further details see Wright (1991), p. 80-83.

[6] Flow of Funds, Table L.122.

[7] American Council of Life Insurance (1992), p. 69

year-end 1987.[8]

In short, many life insurance firms transformed themselves from managers of mortality and morbidity risk into managers of investment risk in a short time.[9] It is not surprising in hindsight that the real-estate recession of the late 1980s and the collapse of the junk bond market in 1990 revealed that many firms were overextended. As illustrated in Figure 3, life insurance companies were failing at a higher rate than commercial banks during the period 1989-1991.[10]

The securities industry also experienced pressures on its core businesses. Traditionally, the major source of revenue for securities firms was commissions on securities trades. The New York Stock Exchange had for many years required its members to charge fixed minimum commissions for stock transactions. This arrangement had been exempted from prosecution under the antitrust laws by the Securities Exchange Act of 1934.[11] Fixed-rate commissions were analogous to the limits on the interest rates that banks and thrifts could pay on deposits; both were sanctioned by Depression-era legislation in an attempt to prevent destructive competitive practices in their respective industries. The Securities Acts Amendments of 1975 ended the era of fixed-rate commissions. On May 1, 1975 (remembered in the industry as "May Day"[12]) commissions on equity transactions became negotiable.

Another important revenue source was income from the underwriting of securities. The disclosure requirements for publicly traded securities in the United States made the issuance of these securities a labor-intensive process. In addition to earning an underwriting spread representing the difference between the offering price of the security to the public and the proceeds to the issuer, investment banks could add value by assisting in the extensive due diligence activities necessary to prepare a prospectus that would be acceptable to the SEC and by providing advice regarding the structure and pricing of the securities. All of these areas have come under pressure.

In part in response to an increasing flow of new issues to offshore markets, the SEC attempted to reduce the cost of public issuance of securities in the U.S. In March, 1982, SEC Rule 415,

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[8] American Council of Life Insurance (1992) p. 85.

[9] Lennon (1991), p. 98.

[10] Colantuoni (1993).

[11] Gart (1994), p. 45.

[12] Marshall and Ellis, p.16.

more commonly known as shelf registration, was implemented. In a shelf registration, an SEC filing for the issuance of securities is good for up to two years after the date of the initial filing. Thus, the required due diligence investigation and filing of forms need only be done once. After that, the issuer can use the authority to issue securities on only 24 hours notice to the SEC, and on multiple occasions during the two years, simply by amending the registration to reflect changes in the firm's condition. This contrasts with the old approach in which firms had to complete the full registration process for every issue, and the securities had to be distributed very quickly after SEC approval. For large firms that access the capital markets frequently, shelf registration has become the preferred method of issuing securities.[13]

Shelf registration has been a factor in reducing underwriting spreads. Traditionally a business firm would have a relationship with an investment bank in which the entire process of issuing securities--preparation of the issue, the underwriting itself, and distribution to the public--would be managed by that bank. With the advent of shelf registration it has become increasingly common for the issuing firm to solicit competitive bids for the underwriting, once the initial preparation of documents has been completed. This unbundling of functions has put downward pressure on underwriting spreads.

The growth of foreign competition and competition from the treasury departments of large nonfinancial corporations also have played important roles in making the underwriting business more competitive. It is becoming increasingly common for large nonfinancial corporations to issue simple securities themselves, without the assistance of an investment banker.

These competitive pressures have resulted in a decline in the importance of securities firms' traditional revenue sources. Commissions on securities transactions, which had accounted for over 50 percent of broker-dealer revenue in the mid-1970s[14] declined to 34 percent of revenue in 1980 and 18 percent in 1993. Throughout the 1980s, securities firms placed growing reliance on "other income" as a revenue source, especially advising fees from mergers and acquisitions (M&A) and corporate restructurings. "Other income" increased from 20 percent of broker-dealer revenues in 1980 to 39 percent in 1992.

Fueled by growing M&A activity, the rapid growth of the junk bond business and the bull market in stocks, securities firms grew rapidly during the 1980s. From 1980 to 1986, the assets of broker

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[13] This discussion is drawn from Marshall and Ellis, pp.77-78.

[14] NY Fed (1993), Charts following p. 204. and SEC Annual Report data.

dealers registered with the SEC increased at an average annual rate of 28 percent. With the stock market corrections of 1987 and 1989, the collapse of the junk bond market in 1990 and the recession of the early 1990s, however, some securities firms experienced difficulties. Drexel, Burnham Lambert filed for bankruptcy protection in 1990. The difficulties of some other large firms were resolved less disruptively. American Express recapitalized Shearson-Lehman, General Electric provided support to Kidder Peabody, Prudential Insurance restructured Prudential Bache, and Credit Suisse recapitalized First Boston.[15] In addition, there was substantial consolidation among smaller securities firms. The number of broker-dealers registered with the SEC declined by 1722, or 18 percent, between year-end 1987 and year-end 1992.[16]

In short, interest-rate volatility, unbundling of financial activities, and regulatory removal of certain barriers to competition led to increased price competition in the core businesses of both life insurers and securities firms. Many firms grew rapidly into new lines of business, and many did not manage the transition well. The success of commercial banks in adapting to this new environment is discussed in the next section.

Commercial Bank Performance

The experience of the commercial banking industry during the last ten to 20 years is similar in many respects to the experiences of the thrift industry, the life insurance industry and the securities industry. Traditional core businesses came under competitive pressure, and the industry began to increase reliance on activities such as lending to Less Developed Countries (LDCs), commercial real estate lending, and a variety of fee-based off-balance sheet activities. In LDC lending, in agricultural and energy lending, and in commercial real-estate lending there was an abrupt reckoning as markets plummeted in areas where banks had heavy exposures. More than 1300 banks failed from 1985 through 1992.

Like the life insurance and securities industries, commercial banks have experienced a period of consolidation. The number of insured commercial banks and trusts declined by 3450, or 24 percent, from 1985 through 1993. The number of banking organizations declined by 2719, again 24 percent, during the same period (Table 2). Concentration increased, as the largest organizations garnered a bigger share of industry assets. The top 50 banking organizations increased their share of industry assets from about 52 percent at year-end 1985 to about 62 percent at year-end 1993.

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[15] Gart, 1994, p. 76.

[16] SEC Annual Report data.

The short-term prospects for the commercial banking industry are excellent as of this writing. 1993 earnings of $43 billion far surpassed the 1992 record of $32 billion. Noncurrent loans and real-estate owned have declined to their lowest dollar volume since 1986. The industry's year-end 1993 weighted average equity capital-to-assets ratio of eight percent is the highest since 1963.[17]

Despite these favorable indicators, many observers remain concerned about the long-term health of the banking industry. Commercial banks' share of financial intermediation is declining by several measures. For example, the commercial bank share of the financial assets of all private financial institutions fell from 45 percent in the 1950s to 35 percent in the 1960s and 1970s, to 25 percent in recent years (Table 3).

Before proceeding with a discussion of the reasons for banks' declining market share, it will be useful to examine briefly whether this decline is real, or is simply an artifact of incorrect measures of market share. Since banks are choosing to concentrate more on off-balance sheet activities, a definition of market share that focuses on shares of financial assets on the books may be missing the mark.

One way to evaluate this argument is by looking at the trend in bank revenues as a fraction of the total revenues of banking, securities and life insurance firms. Commercial banks' share of total revenues declined from 56 percent in 1980 to 44 percent in 1992.[18] It could be argued that bank revenues are largely driven by the level of interest rates, which have declined considerably since 1980. However, similar conclusions are drawn from other measures. For example, securities' firms pre-tax net income increased at an average rate of 9.2 percent per year between 1980 and 1992 (data on net income for life insurers is not readily available, and in any event is not comparable because of accounting differences), compared to 6.6 percent per year for banks. Similarly, the share of book capital in commercial banking, relative to insurance, securities firms and finance companies, declined from 54 percent in the mid-1970s to 43 percent recently (Table 4).

It is important to note that these results apply to commercial banks and do not include revenues and capital deriving from the nonbanking activities of bank holding companies. While in my view it is likely that the same qualitative results would hold if we looked at banking organizations rather than banks, this is open to further investigation.

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[17]FDIC Quarterly Banking Profile, Fourth Quarter 1993.

[18] ACLI (1992), SEC Annual Report data and FDIC (1993).

In short, it appears that banks have not been completely successful in adapting to changes in financial markets. While they have lost market share in traditional activities, as described below, they do not appear to have increased their share commensurately in emerging businesses. The next section of the paper will survey the changing role of banks in a number of activities closely related to fund gathering and lending: deposit gathering, pension fund management and mutual fund sales, household lending, business lending and securities underwriting. It is only by taking a detailed look at specific banking activities that we can make an informed judgment on the relative importance of regulation and market forces in driving the changes in bank market share.

Commercial Bank Activities

Deposit Gathering

It is important to distinguish between banks' deposit market share -- the portion of household assets invested in deposits -- and banks' overall share of household assets, including trust assets, mutual funds and pension funds under management. Banks have lost market share in both areas, but for different reasons. This section focuses on deposit gathering.

Banks have lost deposit market share primarily to mutual funds, which increasingly have offered some payment services, and pension funds, which have benefitted enormously from the tax-deferred treatment of certain pension contributions. Primarily as a result of this competition, the share of household assets invested in deposits fell from about 25 percent during most of the 1970s to about 17 percent by 1993 (Table 5). During the same period, the combined share of mutual funds and pension funds in attracting household savings almost tripled, from 13 percent to 35 percent.

The increased alternatives available to savers have had a major effect on banks' funding costs. As indicated in Figure 4, the average interest cost of deposits has increased inexorably over the last 20 years, when measured relative to the yields on U.S. Treasury debt. In 1970, banks' average interest expense was only 35 percent of the yield on 91-day Treasury bills. In 1992, the lines crossed for the first time, as banks paid more for funds on average than the Treasury-bill rate.

The increased cost of deposits most likely played an important role in constraining the growth of the banking industry during this period. An increased cost of doing business reduces the return on invested capital, other things constant, inhibiting the growth of new capital and hence the asset growth of the industry.

It has been asserted by some observers that the banking industry's "brick and mortar" branch network for gathering deposits has become economically inefficient. In this view, improvements in technology have made it increasingly unnecessary for a customer to set foot in a branch. Therefore, it is argued, firms that conduct business by telephone, ATMs and electronic transfer have a cost advantage in fund gathering as compared to the traditional commercial bank.

While this view is plausible, it is difficult to reconcile with the fact that the number of branches (not including ATMs) of U.S. commercial banks has increased since 1985 (Table 2). It is likely that improvements in technology have made it possible to operate branches with fewer, more productive personnel and with less space required for storage of records. Thus, it is not clear a priori how improvements in technology have altered the relative benefits and costs of opening a new branch.

Banks enjoy certain artificial advantages in gathering funds. One of these is federal deposit insurance. Another is the barrier to entry to the deposit-taking business erected by the Glass-Steagall Act. While mutual funds are increasingly offering transactions services, Glass-Steagall prevents them from offering a full-service deposit business. Still another advantage is the ability to provide their customers indirect access to the Federal Reserve's Fedwire system. Fedwire provides instantaneous, real-time final settlement of large payments, and is currently available only to depository institutions.

There are two areas where it might be argued that banks suffer a disadvantage in fund gathering. First, constraints on their asset portfolios may make it hard for banks to offer the same risk-return characteristics as an equity fund or aggressive bond fund. In principle, however, there is no reason customers seeking such return characteristics cannot be accommodated by the trust department or through the mutual fund authority available to banks. Second, the inability to branch or merge in some cases can artificially increase the all-in cost of deposit gathering by preventing the elimination of redundant back-office capacity.

Meaningful comparisons of the cost of funds to banks as compared to other intermediaries are difficult, since one must control for differences in asset portfolios, capitalization levels, regulation, and the presence of federal deposit insurance. On balance, however, it is hard to argue that banks suffer regulatory handicaps in the fund-gathering business. The industry enjoys some important built-in advantages: deposit insurance, Glass-Steagall protections from competition and access to the payments system. The growing number of bank branches suggests that these advantages still outweigh the additional costs of the branch network.

Pension Funds and Mutual Funds

The growth of pension funds and mutual funds is a prime example of the increasing separation of functions in financial services. These entities provide savers with specialized portfolio management, a menu of risk-return characteristics, and easy access to account information. There is no reason why such services must be provided by the same entity that, say, originates or services loans.

Mutual funds have grown rapidly over the past ten years. They have the advantage of enabling small savers to participate in the returns from a diversified portfolio of securities, and to chose from a menu of risk-return characteristics. Many mutual funds offer transactions privileges as well, increasing their ability to compete with bank deposits. As a share of household financial assets, mutual funds increased from about two percent in the late 1970s to about eight percent recently (Table 5).

Generally, mutual funds do not have direct employees. Instead, the Boards of Directors contract with other firms to fulfill various roles: underwriter; investment advisor; custodian; transfer agent; administrator; fund accountant; fund counsel; and independent auditor. Most of these roles can be performed by banks without regulatory obstacles. Through their trust departments, banks have historically performed custodial services and transfer agent services for a variety of firms including mutual funds. Custodians hold the securities purchased by the fund, and purchase or sell securities in the proportion determined by the investment advisor. The transfer agent maintains records of the shares of each investor in the fund and the disposition of returns on their investments. Banks can serve as administrators -- essentially business managers -- of mutual funds. The fund accountant is required to track per share net asset values on a daily basis, and conform to other requirements of the Investment Company Act of 1940. While there are no regulatory barriers for banks wishing to provide this service, developing the necessary expertise and systems requires a significant initial investment before a bank is prepared to offer this service to a mutual fund.[19] The investment advisor decides what securities to buy and sell, consistent with the investment objectives established by the Board, and earns fees that are normally based on some percentage of the net asset value of the fund. Providing investment advice to a large fund can be very lucrative. National banks are permitted to act as investment advisers to mutual funds under the National Bank Act. State banks are bound by state laws, but both the FDIC and the Federal Reserve permit this activity.

The underwriter, also called the sponsor or distributor, effects the funds' share transactions. Thus, when an investor wants to buy shares, the underwriter purchases the shares from the

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[19] American Bankers Association, p.4.

fund and sells them to the investor, taking technical ownership of the shares for an instant in time. The load or sales commission, if any, accrues to the underwriter. National banks and state member banks are not permitted to underwrite mutual fund shares for the same reason they cannot underwrite corporate securities issues: both are bank-ineligible securities under the Glass-Steagall Act.[20]

Banks can distribute mutual fund shares in three ways. In a proprietary fund, the bank serves as the investment adviser and hires an unaffiliated entity as the underwriter. At year-end 1993, 113 banks or bank subsidiaries offered proprietary funds. In a private label arrangement, a third party contracts with a bank to set up a mutual fund that is named by the bank. The bank gets a "house brand" mutual fund it can market to its customers while having the investment advice and other functions performed by others. Finally, a bank can simply act as a broker, selling the mutual fund of a third party on the bank premises. It has been estimated that over 3000 banks are selling mutual fund shares in one of these forms.[21]

Banks' share of the mutual fund business is modest but growing. The market share of proprietary bank funds doubled from year-end 1988 to mid-1993, from 5.4 percent to 10.8 percent. Growth in advisor and administrator revenues for these funds more than tripled during this period.[22] According to a recent survey, 33 percent of all mutual funds had sales through banks during the first half of 1992.[23] Recently, regulators have expressed concern that investors purchasing mutual funds from banks may be confusing these products with insured deposits. It remains to be seen whether these concerns will constrain the growth of bank mutual funds.

Pension funds have been the fastest growing repository for household savings in recent years. Pension funds' share of household assets grew from 10 percent as the 1970s began to 27 percent recently. One of the most important reasons for this is the tax-deferred status of certain pension fund contributions and the increasingly common practice of employers' providing matching tax-deferred contributions to employee pension plans.

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[20] State nonmember banks can underwrite mutual fund shares if permitted by state law and the FDIC. As of March 1994, one such bank had received FDIC permission to engage in this activity through a subsidiary.

[21] ABA, p.9

[22] These figures are from Lipper Analytical Services.

[23] ABA, Investment Company Institute

The management of pension fund assets is a highly competitive business. Indicative of this competitive spirit are the reports on the industry's "biggest winners" and "biggest losers," together with lists of accounts gained and lost by the major players in this market, that appear regularly in Institutional Investor magazine. Bank trust departments once played the dominant role in managing pension fund assets, but have lost that position.

The only quantitative indicator of banks' pension management business is contained in the annual report Trust Assets of Financial Institutions published since 1968 by the bank regulatory agencies. The report contains data on the volume of assets in employee benefit plan accounts managed by trust departments. These accounts include retirement plans, health insurance accounts and other employee benefit plans. For purposes of measuring bank market share in pension management these data are far from perfect. Nevertheless, changes over time in this series compared to changes in total pension assets should be indicative of the direction of change in bank market share. Assets in employee benefit plans managed by bank trusts were 43 percent of total pension fund assets in 1968. By 1992, that percentage had fallen to 17 percent (Figure 5).

Banks do not face any special regulatory hurdles in the pension management business. Their loss of market share in this area has been attributed to a failure to compete with mutual fund companies in the areas of communication and consumer education.[24] These firms were accustomed to providing customers with twenty-four hour, seven day per week 800-number service, daily updating of account balances, regular mailings of account information and consumer education on basic concepts of investment planning.

Household Lending

The main types of bank lending to households are mortgage lending and consumer credit. This has been a growth business for financial intermediaries in general, as household debt has expanded relative to disposable personal income for many years (Table 6).

Mortgage Lending. Mortgage debt is by far the predominant form of household debt, accounting for 69 percent of all household liabilities as of year-end 1992. For most mortgages, the days when a single institution originates the loan, holds it in portfolio and services it over its life are over: it is estimated that 63 percent by dollar volume of all home mortgages originated in 1993, including 46 percent of "jumbos," were securitized.[25] Origination, funding and servicing are separate activities and each is performed

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[24] Holliday, 1992, p. 60.

[25] Inside Mortgage Finance (1994) p. 140.

in highly competitive markets.

The last ten years have seen a slight increase in commercial banks' share of long-term 1-4 family mortgage originations as reported by the U.S. Department of Housing and Urban Development (Table 7). Unfortunately, these data both understate the share of banking organizations and provide no information about the trend of their market share, since mortgage companies affiliated with banks are not separated from other mortgage companies. A different picture is revealed by inspection of the shares of the top 25 mortgage originators, as reported by Inside Mortgage Finance. In 1989, 17 of the top 25 mortgage originators were affiliated with banks or thrifts, and these institutions originated 77 percent by dollar volume, of the originations of the top 25. By 1993, only 14 of the top 25 were bank- or thrift-related firms, and these firms originated 49 percent, by dollar, of the top 25's originations. Clearly the large independent mortgage originators were making inroads.

The business of funding mortgages in portfolio has been drastically changed by the growth of federally sponsored mortgage pools. By vastly increasing the demand for conforming mortgages, federal involvement has driven up the market value of these instruments and reduced their yields. In conjunction with depository institutions' increasing cost of funds, the ready market for conforming mortgages has encouraged these institutions to sell rather than hold mortgages. Since the beginning of the 1970s, the share of residential mortgage debt held in federally sponsored pools has increased from one percent to 43 percent, while the share of commercial banks has remained fairly steady in the 15-18 percent range.

Mortgage servicing is a highly competitive business with many firms. The largest firms have gradually increased their market share over the last four years. The top 25 mortgage servicers increased their share of the servicing market from 18 percent at year-end 1989 to 31 percent at year-end 1993[26]. The share of this business done by banks and thrifts has increased. In 1989, 14 of the top 25 mortgage servicers were bank- or thrift-related, and these firms serviced 59 percent of the business of the top 25 firms. By 1993, the bank and thrift servicers had increased their share to 17 of the top 25, with 64 percent of the group's business.

All home mortgage lenders must comply with the provisions of the Real Estate Settlement Procedures Act of 1974, the Truth in Lending Act of 1968 and subsequent revisions, and the Equal Credit Opportunity Act of 1975. These statutes are intended to insure adequate disclosure of the costs and terms of mortgage lending, and to prevent discrimination based on race, religion or other

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[26] Inside Mortgage Finance, Feb. 25, 1994, p.6.

prohibited factors. The Home Mortgage Disclosure Act of 1975 (HMDA) requires mortgage-lending institutions with assets over $10 million, and a home or branch office in a Metropolitan Statistical Area, to compile and disclose data about their mortgage applications and mortgage loans and purchases, itemized by geographic area and year.[27] The Community Reinvestment Act of 1977 (CRA) applies to all banking services, not just mortgage lending. It requires the federal banking agencies to evaluate insured institutions' records of meeting the credit needs of their communities, and take this record into account in evaluating applications for deposit facilities (e.g., branching, merger or relocation). Finally, the Financial Institutions Reform, Recovery and Enforcement Act of 1989 requires federally insured depositories to obtain independent and impartially prepared appraisals on all real-estate transactions above a minimum amount established by regulation. In 1992 this minimum was increased by the bank regulatory agencies from $50,000 to $100,000.[28]

There are thus two special regulatory requirements faced by banks, but not by nonbanks, in home mortgage lending. One is to maintain records of loan applications and outcomes for CRA purposes, and the other is to obtain independent appraisals for certain loans. In evaluating the competitive burden imposed by these requirements, it should be noted that nonbank originators compete with banks almost exclusively in the market for loans that are securitized. Such loans require an appraisal anyway, as well as a certain amount of documentation. And while the relative cost of documentation is an empirical question, the origination data discussed above suggests that the commercial banking industry as a whole has at least maintained its market share in this area.

Consumer Credit. Banks' share of consumer credit has declined from about 51 percent throughout most of the 1970s to about 45 percent in 1993 (Table 8). Finance companies' share fell even more, from 24 percent as the 1970s began to less than 15 percent in 1993. This combined loss of 15 percentage points is essentially explained by the development in the mid-1980s of securities backed by pools of consumer loans, mostly credit card receivables and automobile loans. Issuers of asset-backed securities (ABS) held 15 percent of consumer credit outstanding at year-end 1993.

The "conventional wisdom" that finance companies have gained market share in consumer credit thus depends on the assumption that the growing pool of asset backed securities are backed mostly by finance company receivables, rather than bank receivables. These

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[27]Federal Financial Institutions Examination Council, 1992, p.1.

[28] For further discussion see GAO (1993).

securities are backed primarily by auto loan receivables and credit card receivables originated by both banks and nonbanks. Adequate data on ABS issuers' holdings do not exist to determine the overall share of consumer credit provided by banks.

Credit cards are an important method of extending consumer credit, and banks have traditionally dominated the business. "Bank cards," cards which may be used for purchases from any retailer whose depository institution is part of the cards' settlement system, are the most widely used form of credit card. Entry into the bank card issuance business is effectively limited to depository institutions. First, only depository institutions are allowed to participate in the systems which have been set up by Visa and MasterCard to settle interbank accounts. Second, both national and state chartered depository institutions are able to "export" the interest rates allowed by the usury laws of the state in which the national institution is located or the state institution is chartered to borrowers in other states.[29] Thus, for example, a commercial firm without an affiliation to a state-chartered depository institution would be bound by the separate usury laws of each of the states in which it had borrowers.[30] Finally, the practical requirements of processing payments make it extremely useful for credit card issuers to have access to the Fedwire payments system.

A commercial firm can enter the credit card business through the creation or acquisition of limited purpose credit card banks under an exception created by the Competitive Equality Banking Act of 1987 (CEBA) to the general prohibition of such ownership set forth in the Bank Holding Company Act (BHCA). Commercial firms are allowed to own limited purpose credit card banks because the CEBA has excepted such institutions from the definition of "bank" for purposes of the BHCA. Alternatively, a number of nonbank firms have been able to issue cards through state-chartered industrial loan companies (ILCs) -- the so-called "nonbank banks." These card issuers include Sears, GMAC and AT&T. The growth in new ILC charters for nonbanks was abruptly curtailed in 1987 by the CEBA.[31]

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[29] National banks have this power as a result of Supreme Court decisions (See Marquette National Bank v. First of Omaha Service Corporation, 439 U.S. 299 (1978)); state banks have the authority pursuant to section 521 of the Depository Institutions Deregulation and Monetary Control Act of 1980 (12 U.S.C. § 1831d).

[30] The author is indebted to Mark Mellon of the FDIC Legal Division for providing detailed technical information about the credit card business.

[31] CEBA in effect stipulated that ILCs in states other than California, Utah and Colorado had to become bank holding companies and thereby be subject to regulation by the Federal Reserve. Only

Cards issued by nonbank firms are gaining market share, at least as measured by the top ten issuers. In 1988, two of the top ten card issuers were affiliated with commercial firms, and these two had 16 percent of the outstanding card receivables of the top ten. By 1992, four nonbank firms were in the top ten and their share of the groups' receivables had doubled to 32 percent.[32]

The credit card business has traditionally been dominated by banks and it cannot be said that they suffer any regulatory handicaps in this area as compared to nonbank institutions. It is true that the inability to affiliate with commercial firms prevents banks from offering an arrangement in which users of a card issued by a commercial firm can get discounts on that firm's products. Nevertheless, bank card issuers can and do offer their cardholders a variety of promotions and discounts through participating merchants.

There are certain types of consumer credit where banks' inability to affiliate with commercial firms most likely does put them at a competitive disadvantage. Auto finance companies are prime examples of nonbank firms that have captured a substantial share of a specific market. Their success presumably reflects a number of factors. First is their ability to allow the customers of the parent company to economize on time and "shoe leather costs" in obtaining financing. Second is their affiliation with organizations that have specialized expertise in disposing of the collateral (the automobile) in the event of default. Finally, the tie-in between the extension of credit and the sale of the product may enable these organizations to offer a menu of options with regard to the auto sales price, down payment and loan interest rate. By allowing customers of differing financial circumstances to select the option most suitable to themselves, sales revenues can be increased.

Business Lending

An inclusive measure of bank lending to business[33] shows bank loans as a proportion of nonfinancial business sector liabilities increasing from an average of 19 percent in the 1950s to an average

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California still issues new ILC charters.

[32] Credit Card Management, May issues.

[33] This measure includes an estimated share of mortgage lending provided by banks to nonfinancial business as well as "bank loans not elsewhere classified." For each type of mortgage (home, multifamily, commercial and farm) used by nonfinancial business, the share provided by banks is assumed to equal the overall bank share in that type of lending, derived from the Flow of Funds mortgage tables.

of about 24 percent in the 1970s. Market share remained at this ratio as recently as the mid-1980s, before declining to about 21 percent during the 1992 to 1993 period (Table 9). Explaining the recent decline in bank market share requires consideration of the essentially separate markets for business lending to borrowers who can, or cannot, readily access the capital markets directly.

Small-Business Lending. There is no convenient data that categorizes business firms according to their access to capital markets. There are two reasonable proxies for businesses that cannot readily access capital markets. One is the Flow of Funds category "Nonfarm, noncorporate nonfinancial business." Another is the data on small manufacturing firms collected by the Commerce Department.[34] Both sets of data tell the same story. First, these firms rely more heavily on banks for financing than do large corporations. Second, banks market share of lending to small firms has been increasing.

The Flow of Funds proxy for small business shows bank lending as a percentage of total liabilities increasing from 11 percent in the 1950s to 20 percent as the 1970s began, to about 25 percent since the early 1980s (Table 9). The increase in bank lending to noncorporate business may be surprising to some readers. It is explained largely by an increase in banks' commercial mortgage lending to this sector (Table 10).

This ratio has exceeded banks' share of lending to corporate business since the late 1970s. Similarly, the Quarterly Financial Report for Manufacturing, Mining and Trade Corporations published by the Commerce Department shows that bank loans as a percentage of total liabilities at year-end 1992 ranged from 32 percent to 42 percent for manufacturing firms in the size categories less than $250 million in assets, to about eight percent for the largest firms with over $1 billion in assets. The Commerce figures also show an increase since 1979 in bank share of lending to small manufacturing firms of all size categories (Table 11).

The important role of banks in financing small business lending is consistent with the recent academic theory of the banking firm. Most recent academic discussions of banking have described the prototypical bank borrower as one who cannot access capital markets directly or can do so only at great cost. This is due to the difficulty the borrower has in conveying credible information about his creditworthiness to other market participants. The existence of these "informational asymmetries" is one of the principle reasons for the existence of banks and other financial intermediaries.

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[34] Quarterly Financial Report for Manufacturing, Mining and Trade Corporations, U.S. Department of Commerce.

By their nature, loans to these prototypical bank borrowers tend to be difficult for markets to value and therefore illiquid. Since banks hold a high proportion of short-term and demandable liabilities that are payable at par, the illiquidity of their assets makes them subject to deposit runs.[35] It has been debated whether the joint provision of transactions accounts and lending services gave banks an "informational advantage" in lending to small business borrowers and whether such an advantage still exists.[36] The role of deposit insurance in giving banks a comparative advantage in lending to these borrowers has been less discussed. It is not clear whether uninsured entities could fund illiquid, informationally opaque loans at as low an interest cost and with as little capital as banks do.

It also is worth noting that banks' share of business lending in smaller communities is further enhanced by the practice of placing local business leaders on the banks' Boards of Directors. These Directors often tend to be the banks' best loan customers.

Lending to Large Borrowers. There are two reasonable proxies for the set of firms with ready access to the capital markets. One of these is the Flow of Funds category "Nonfinancial Corporate Business," and the other is the Commerce data described above. Both sets of data show large firms relying less on bank lending than small firms. The Flow of Funds data show bank lending to corporate borrowers falling substantially during the 1980s, from about 25 percent of liabilities to about 15 percent (Table 9). The Commerce data, on the other hand, show a slight increase from 1979 to 1992 in bank lending to the largest manufacturing firms surveyed. On balance, the weight of evidence seems to indicate bank lending to large corporate borrowers has declined in the last ten years. A recent Federal Reserve study on banks' role in small business lending concluded that most of the recent decline in bank C&I lending is attributable to "paydowns of loans at large institutions, likely associated with portfolio restructuring by midsized and large corporate borrowers."[37]

A frequently advanced explanation for the recent loss of bank market share in lending might be called the "technology and competition" hypothesis. In this view, improvements in information technology and capital markets efficiency have made it increasingly easy for business borrowers to access the capital markets directly. This hypothesis is compelling. The upfront costs of issuing

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[35]Diamond and Dybvig (1983) is a seminal exposition of these ideas.

[36] See, e.g., Franklin Edwards (1993), pp. 29-33.

[37] Board of Governors of the Federal Reserve System (1993), p.7.

securities has declined as a result of increased competition in the underwriting market and the development of shelf registration, as described in a preceding section. Improvements in information technology have made storage and transmittal of credit information much easier, mitigating the informational asymmetry problems described in the preceding section. And most important, large firms do appear to be relying more heavily on the capital markets in recent years.

To the extent the pricing of credit is mentioned in this story, it is as a corollary to the underlying premise. That is, the returns to bearing business credit risk are said to be in secular decline, ground down by relentless improvements in technology and market efficiency.

> ....at one time virtually all financial market participants had to rely on banks to bear any significant credit risk; with limitations on geographic entry by other banks, this reliance created the potential for economic rents to credit-risk bearing. Now, for many institutional investors, the capacity to bear high-quality credit risk is an essentially costless byproduct of the expansion of their portfolios; as a result, any rents to bearing high-quality credit risk have to fall or vanish.[38]

It is unfortunate that credit pricing has not received more emphasis in the recent discussion of banks' lending share, for the technology and competition hypothesis may not be the all-encompassing theory that it appears to be. First, the assertion that the returns to bearing high-quality business credit risk are in decline appears incorrect. Second, the hypothesis cannot explain why bank loans to the corporate sector gradually increased in importance from the 1950s through the mid-1970s, and again during the early 1980s (Table 9), while corporate bonds decreased steadily in importance until the mid-1980s (Table 12).

One measure of the market's required return to bearing long-term credit risk is the yield spread between corporate bonds of various credit ratings and a composite index of long-term Treasury bonds. An index of required returns for bearing short-term credit risk is the spread between the commercial paper rate and the rate on 91-day Treasury bills. As shown in Figure 6, risk premia for both corporate bonds and commercial paper were very low in the early 1960s, began to increase in the late 1960s, remained relatively high and volatile through the early 1980s before declining during the 1980s. Currently, risk premia for commercial

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[38] Cumming (1992), p.43.

paper are about what they were 30 years ago, while risk premia for corporate bonds are greater now than they were then. Essentially the same pattern appears for debt rated AAA, AA, A and BBB by Moody's.

This visual impression of the data is supported by a simple regression of each risk premium against time or, alternatively, against time and the index of leading indicators (to control for the influence of macroeconomic conditions on risk premia).[39] The results indicate that over the period 1960 through 1993, there is no declining time-trend in the risk premium either for corporate bonds or commercial paper. This should not be surprising. The market in which high-quality corporate debt instruments are traded and yields are determined was probably no less competitive in the 1960s than it is today.

The time-path of risk premia is suggestive of an important role for the pricing of bank loans in driving changes in bank lending to business. The decision by businesses to fund themselves by bank loans or through the issuance of securities depends on the relative prices of these alternatives. As risk premia for marketable debt increased from their early-1960s levels, banks did not increase their prime lending rate in step. For example, AAA corporate bond yields increased from 4.68 percent in December 1965 to 8.04 percent at the end of the first quarter of 1977, a 336 basis point increase. During the same period, banks' average prime lending rate increased from 4.92 percent to 6.25 percent, a 133 basis point increase. Thus, the prime rate went from being priced slightly higher than the AAA rate to being priced well below it, making bank credit more attractive relative to public debt issuance. During this period, corporate businesses continued to rely more on bank debt (Table 9) and less on corporate bonds (Table 12).

A similar story, in reverse, can be told for the 1980s. The AAA bond rate began a fairly steady ten-year decline in June, 1984 from a level of 13.55 percent. At that time, the prime rate was at 12.60 percent. Five years later, in June 1989, the AAA rate was at 8.93 percent while the prime was at 11.50 percent. This time, bank loan pricing had gone from being much more attractive than public debt to much less attractive. During this period, the share of bank loans in corporate business liabilities decreased (Table 9) and reliance on corporate bonds increased (Table 12).

Correlation does not imply causation, but these timing coincidences are worthy of more systematic investigation. For example, the prime rate is a potentially inaccurate measure of actual loan rates at a give time, and the results of alternative

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[39] See Fama (1986) for a discussion of the determinants of money market default premiums.

measures of loan pricing would be interesting. In the above examples I chose the starting and ending dates carefully to make my case as convincing as possible; the results of a more serious econometric investigation would be interesting. Finally, if it is true that bank loan rates increased more slowly than market bond yields in the 1970s and decreased more slowly in the mid- to late 1980s, did this occur as a result of some form of profit-maximizing price stickiness, or did it simply reflect an underpricing of risk in the 1970s and a belated tightening of standards in the late 1980s?

Securities Underwriting

Sections 16, 20, 21 and 32 of the Banking Act of 1933 have become known as the Glass-Steagall Act. Sections 16 and 21 prohibit deposit-taking institutions from "issuing, underwriting, selling or distributing, at wholesale or retail, or through syndicate participation, stocks, bonds, debentures, notes or other securities."[40] Exceptions to this prohibition were made for obligations of the U.S. government, government agencies, dormitory bonds, and the general obligations of states and political subdivisions. Section 20 prohibits members of the Federal Reserve System from affiliating with a company engaged principally in the "issue, flotation, underwriting, public sale or distribution at wholesale or retail or through syndicate participation of stocks, bonds, debentures, notes or other securities." Section 32 prohibits a member bank from having interlocking directorships with a firm "principally engaged" in securities underwriting.

Depository institutions do have some ways of entering the securities business. The prohibition on affiliations of Sections 20 and 32 does not extend to non-member banks or savings associations. Moreover, member banks' authority to affiliate with firms that are not "principally engaged" in the securities business was affirmed in 1988. If these firms earn less than ten percent of their revenues from underwriting securities, they are deemed by the Federal Reserve not to be "primarily engaged" in the underwriting business. As the first quarter of 1993, two "Section 20 subsidiaries" of banking organizations were among the top 12 lead managers of corporate debt issuances, and the total market share of banking affiliates in this market was somewhat less than five percent.[41] The FDIC, the Comptroller and the Federal Reserve also have interpreted the Glass-Steagall Act to allow banks to engage in the private placement of securities. Finally, commercial banks may engage in the underwriting and distribution of securities outside the United States.

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[40] Benston (1990), p. 7.

[41] Perlmuth, 1993, p.149.

Conclusions

As financial markets become more efficient and information technology improves, financial services are being provided in new ways. Activities that formerly were performed in one physical place by a few people--"the bank as general store"-- are now provided by multiple specialized units that may or may not be within the same corporate boundary. This uncoupling of financial activities, together with increased volatility of interest rates in the 1970s and certain deregulatory measures, caused an increase in price competition that required difficult adjustments for traditional financial intermediaries. In life insurance, in securities and in banking, market pressures on traditional products led to the rapid growth of new products, and subsequent difficulties and consolidation.

The commercial banking industry has maintained or improved market share in some markets and lost in others. On balance, however, the industry's revenues and capital have declined relative to its competitors since 1980. The alternatives available to savers have steadily driven up the interest cost of deposits and reduced their importance as a savings vehicle. Meanwhile, however, it appears that banks have not profited from the growth of these alternative savings vehicles to the extent they could have. Banks were once the dominant players in pension fund management, but have lost this position, most likely due to a failure to match the level of customer service that mutual fund companies provide. Banks have had the ability to perform most of the services required by mutual funds, including the ability to act as investment advisers, since at least 1981. Available data on administrator and advisor revenues, however, suggest banks have captured only a modest market share in these areas.

Banks' share of funds advanced to large corporate borrowers has declined for the past decade. Part of this is due to a decline in the fixed costs of issuing securities that is not likely to be reversed. In part, however, the decline may be influenced by a decline in risk premia for marketable securities that history suggests will be reversed.

Banks have been more successful in lending to small borrowers. Bank market share of funds advanced to noncorporate business has increased substantially since the 1950s and even since the 1970s. This is due to increased bank mortgage lending to these firms. In consumer credit the trends are mixed. The commercial bank share of home mortgage originations has increased over the last ten years, but it is not possible to tell how much. Among the largest issuers, however, there has been a substantial increase in the representation of companies not affiliated with depository institutions. The bank and thrift share of mortgage servicing is also apparently increasing. In credit card lending, nonbank share

is increasing among the largest issuers, but the business is still dominated by banks. For overall consumer lending, it is not possible to determine a meaningful measure of bank market share, because of inadequate data on the holdings of asset backed security issuers.

Banks are free to compete in most of these markets without substantial regulatory handicaps. One exception is banks' inability to affiliate with commercial firms, which makes it difficult for them to compete with captive finance companies in automobile lending. The other major exception is the set of limits on bank securities underwriting activities. The debate whether these restrictions should be relaxed is, of course, beyond the scope of this paper.

Even without any easing of restrictions on bank activities and affiliations, I do not believe that banking organizations must necessarily suffer further declines of market share. Average deposit interest rates are now comparable to the yields on short-term Treasury bills. Since deposit insurance gives many bank deposits the same risk profile as a short-term Treasury bill, average deposit rates may not rise much beyond their current level relative to Treasuries. In terms of competing for other forms of household savings, there is no regulatory reason why banks cannot perform most of the activities required by pension funds and mutual funds.

In considering the role of banking organizations in serving the funding needs of large corporate borrowers, there are several reasons why unrelieved pessimism may be unnecessary. First, although banks do face substantial regulatory hurdles in entering the securities business, they may expand this business through their existing Section 20 authorities, through the offering of private placements of securities, and by offshore underwritings.

Second, it may be premature to sound the death knell for bank lending to corporate borrowers. Bank loans grew more attractive relative to corporate debt in the late 1960s and the 1970s, and less attractive beginning in the mid-1980s. Considering that there does not appear to be any secular decline in the returns to bearing high-quality credit risk, it is reasonable to expect that the relative price of marketable debt will one day increase again, increasing the attractiveness of bank loans.

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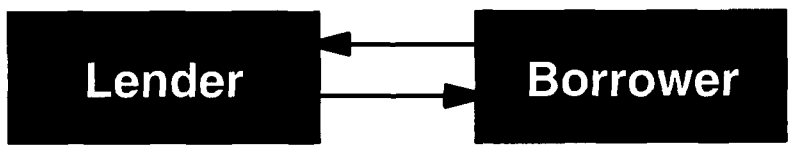
Figure 1
The Evolution of Financial Intermediation

Phase 1

Phase 2
Face-to-Face Trading



Double Coincidence of Wants

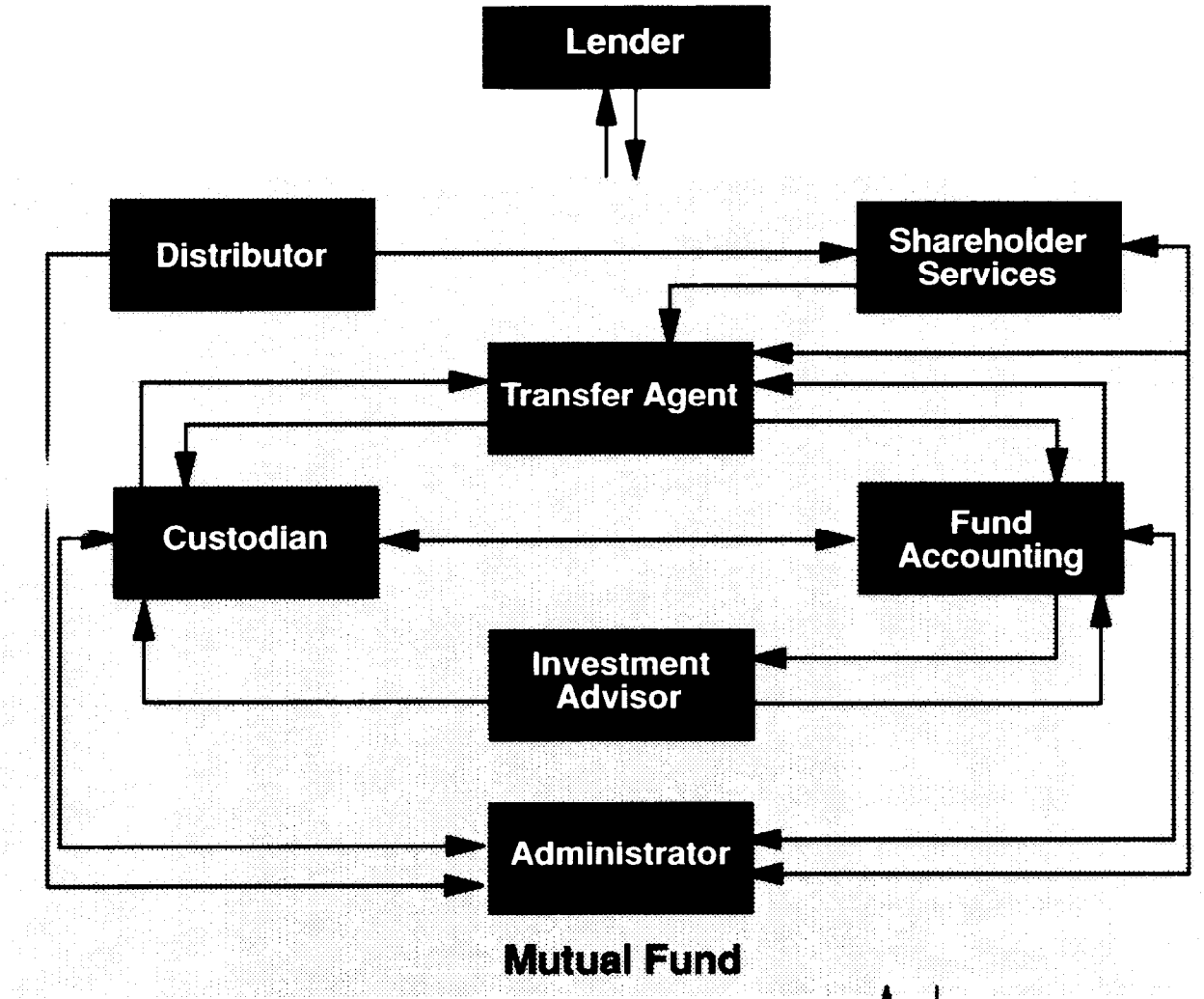
Phase 3
Traditional Financial Intermediation

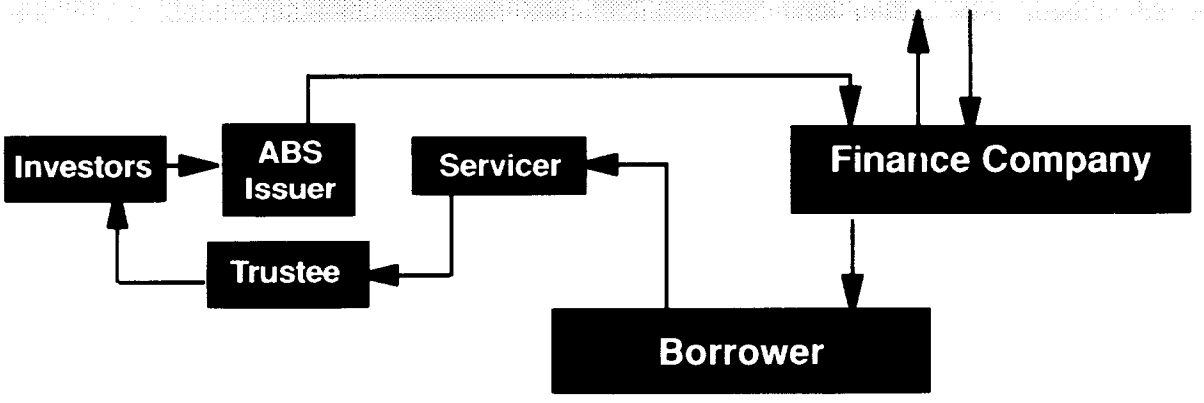
"The Bank as General Store"

Figure 1 (continued)

Phase 4

Multiple Specialized Linkages

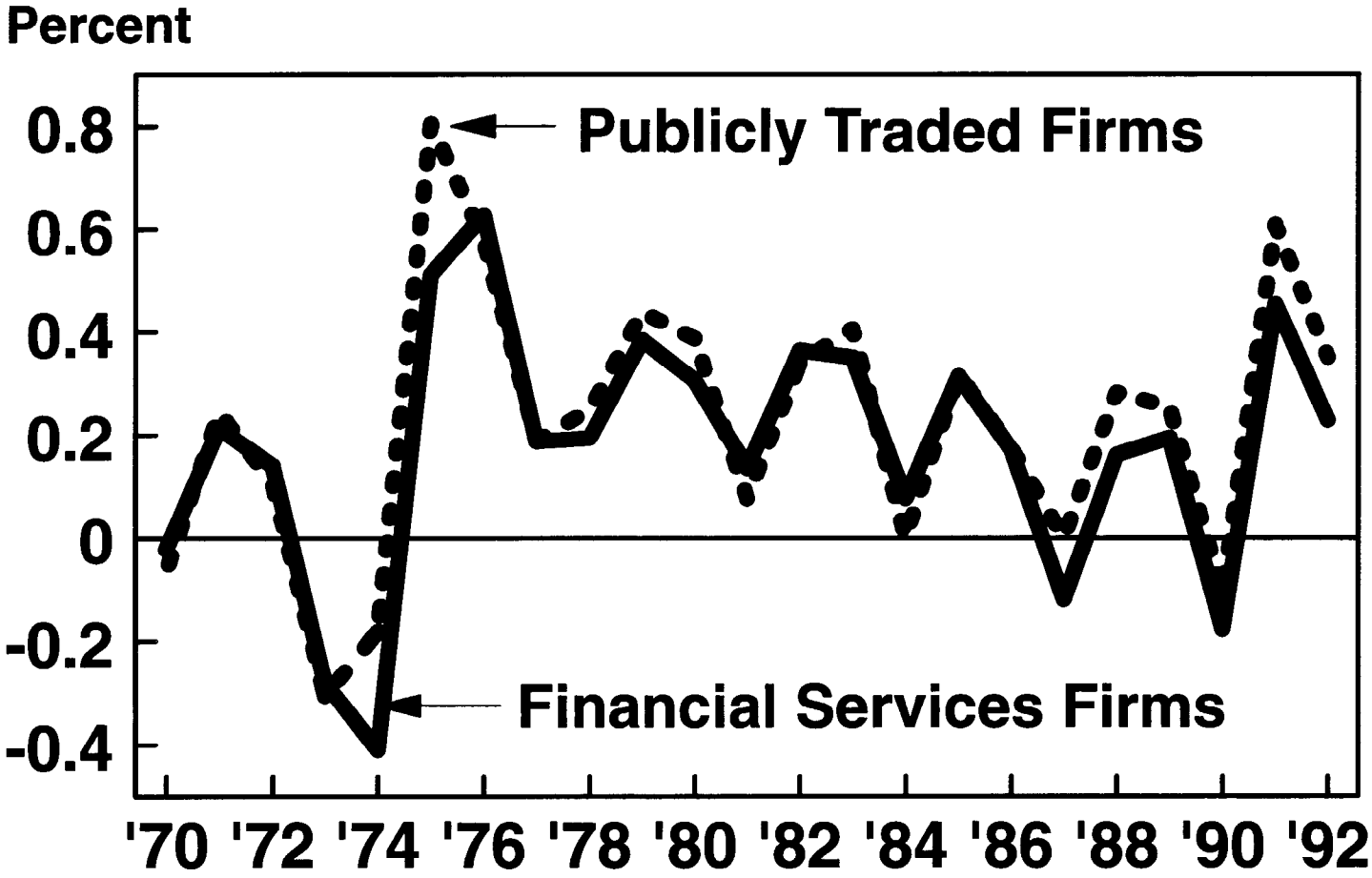




"The Bank as Conglomerate"

Figure 2

Annual Returns* for Financial Services Firms vs. All Publicly Traded Firms



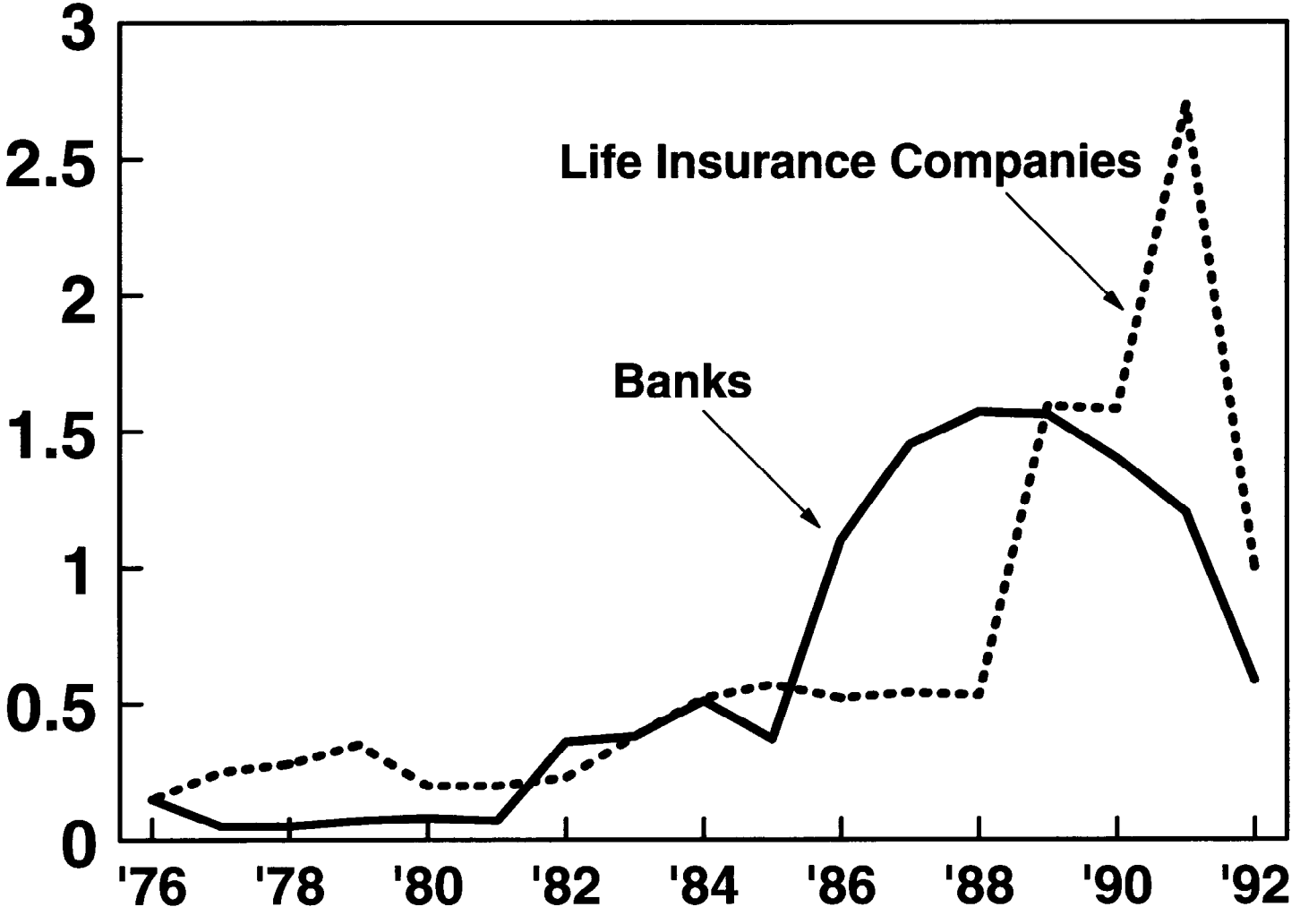
*Equal-weighted returns for firms traded on the NYSE or AMEX.

Source: CRISP tapes.

Figure 3

Failed Banks and Life Insurance Companies

Failures as % of Industry

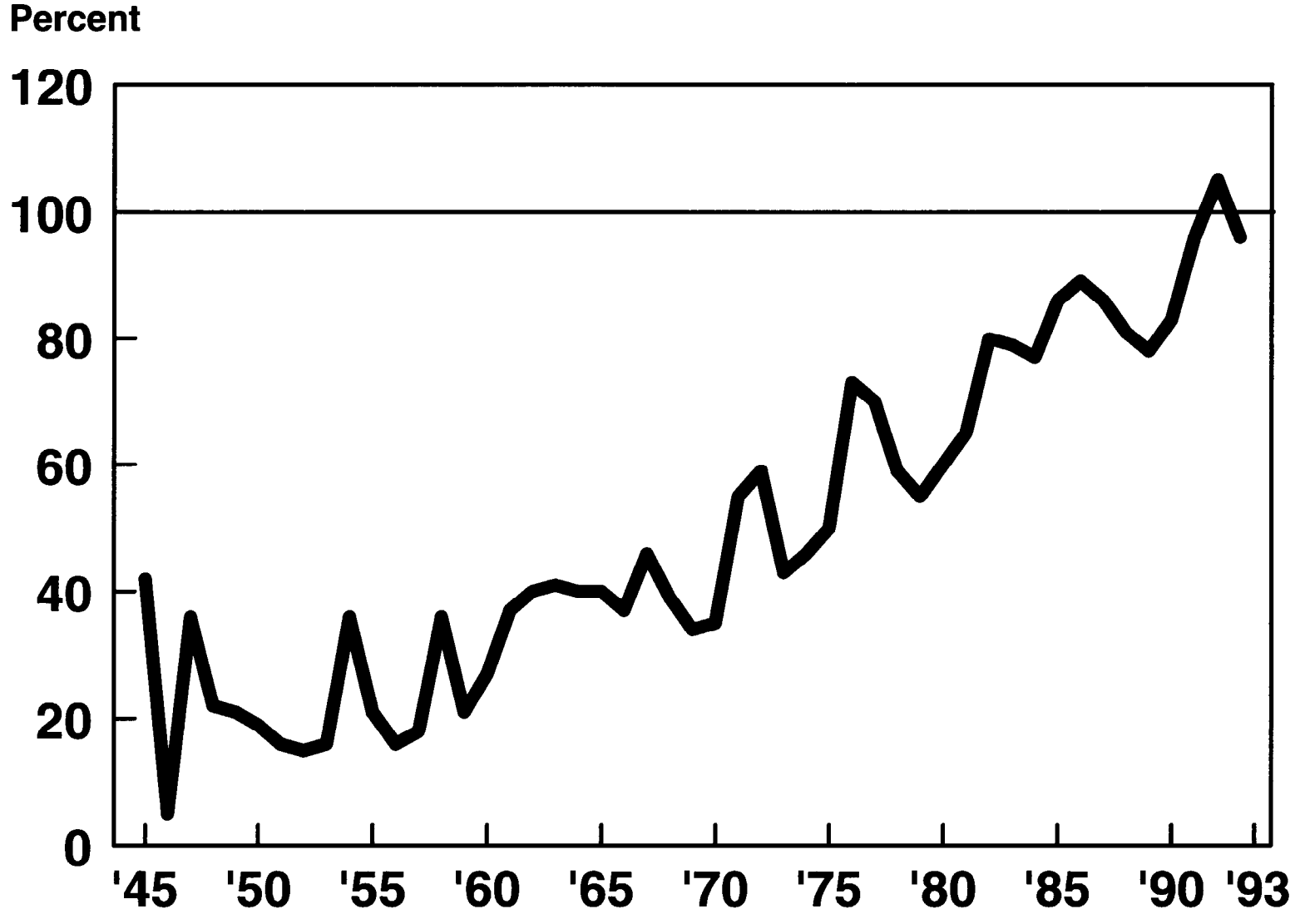


Note: Failure rate is expressed in terms of the number of firms in the industries.
Source: Colantuoni (1993).

Figure 4

Commercial Banks' Average Interest Expense

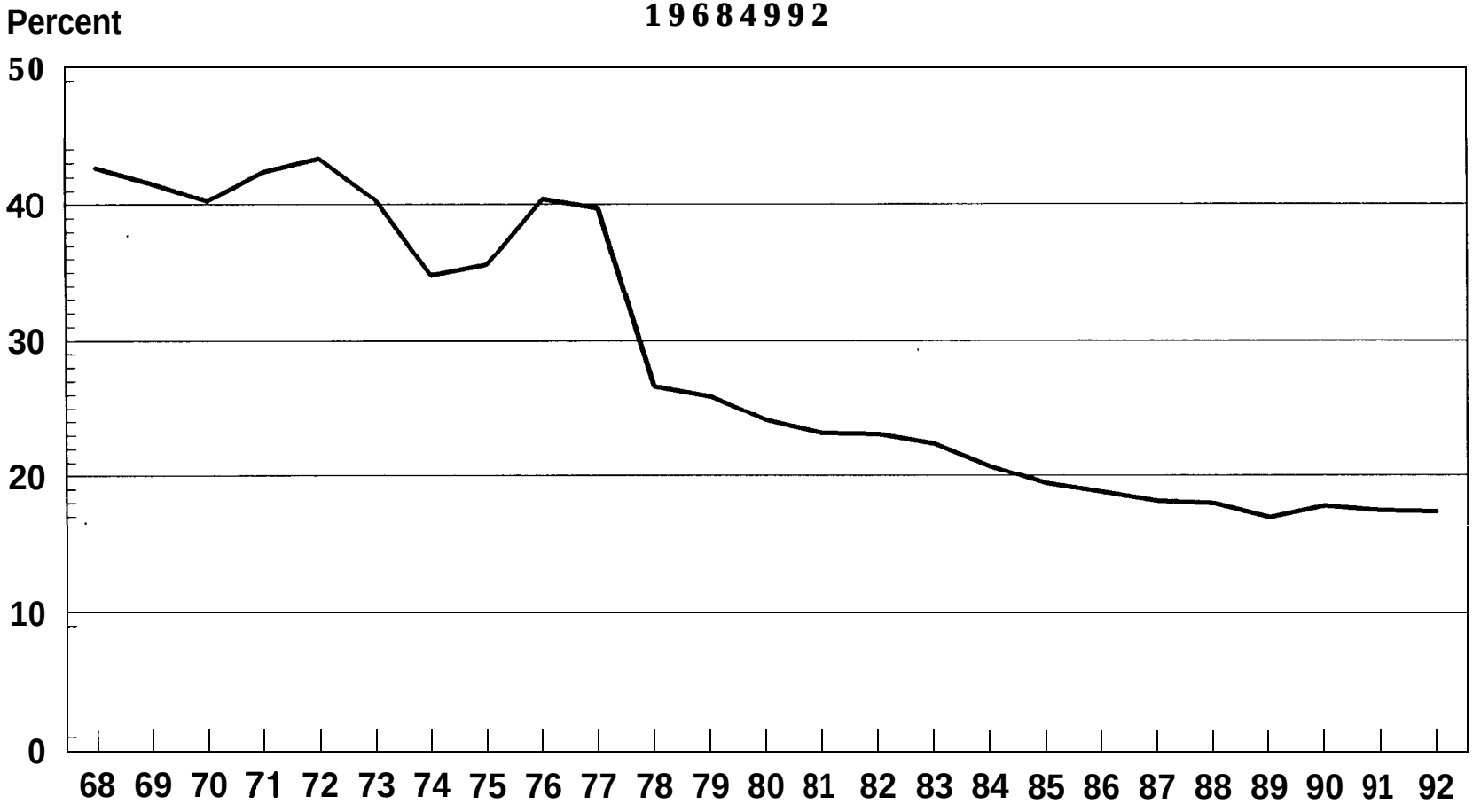
As A Percentage of T-Bill Rates, 1945-1993



Source: FDIC *Historical Statistics on Banking,* Federal Reserve Board.

Figure 5

Bank Trusts' Employee Benefit Plan Accounts
Percentage of Total Pension Reserves

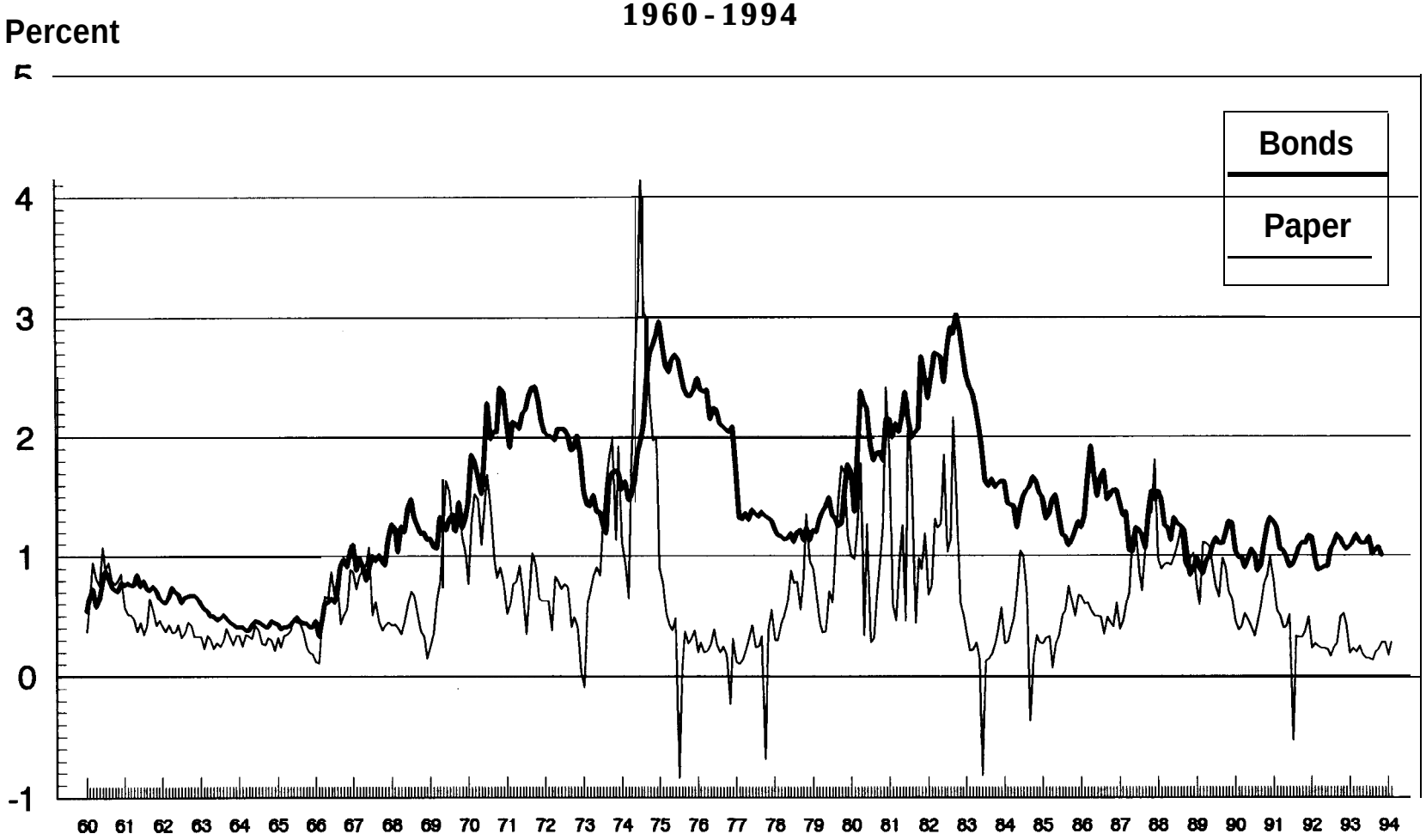


Source: Trust Assets of financial *Institutions* and Flow of Funds

Figure 6

Risk Premia* For Corporate Bonds & Commercial Paper

1960-1994



* Spread of Moody's average corporate bond yield over a composite long-term Treasury rate, and of commercial paper rate over 91 -day Treasury bill auction rate.

Source: Moody's and the Federal Reserve Board

Table 1
Households' Use of Financial Intermediaries
1952 - 1993*

Five Year Averages > > >	1952-56	1957-61	1962-66	1967-71	1972-76	1977-81	1982-86	1987-91	1992-93
Total Household Financial Asset ($ Billions)	923	1,273	1,720	2,436	3,346	5,547	8,852	13,327	16,482
Household Financial Assets As a % of Disposable Personal Income	344.9%	368.0%	375.0%	364.5%	319.6%	313.1%	323.5%	352.1%	358.7%
Share of Financial Assets Invested through Intermediaries+	30.3%	31.8%	35.6%	40.6%	47.9%	48.5%	54.0%	57.2%	58.7%
Share of Financial Assets Invested Directly	69.7%	68.2%	64.4%	59.4%	52.1%	51.5%	46.0%	42.8%	41.3%

* Through second quarter of 1993

+ Sum of deposits, investment company shares, life insurance reserves, pension reserves, and bank personal trusts.

Source: Flow of Funds

Table 2

Banking Organization Statistics

Year-end		Insured Commercial Banks & TC's	Separate Banking Organizations	Multi-Service Domestic Offices	Banking Organizations			
					10 Largest		50 Largest	
					Banks/$	Percent	Banks/$	Percent
1993	Number:	10,957	8,439	63,042	153	1.40	640	5.84
	Bank Assets:	3,705,947			1,163,398	31.39	2,288,890	61.76
1990	Number:	12,343	9,393	61,769	81	0.66	643	5.21
	Bank Assets:	3,389,465			863,491	25.48	1,908,281	56.30
1985	Number:	14,407	11,158	57,134	77	0.53	880	6.11
	Bank Assets:	2,730,672			734,553	26.90	1,412,183	51.72

Sources: FDIC Research Information System and FRB National Information Center Databases
Prepared 03/31/94 by FDIC Division of Research and Statistics (WSK)
(Asset figures in $millions)

Table 3

Percentage Share of Total Financial Sector Financial Assets
Five-Year Averages
1952-1993

By Financial Institution	1952-56	1957-61	1962-66	1967-71	1972-76	1977-81	1982-86	1987-91	1992-93
Commercial Banks	45.4%	38.9%	36.4%	35.4%	36.1%	34.9%	31.0%	27.4%	25.4%
Thrift Institutions	15.8%	18.9%	20.8%	18.9%	19.7%	20.4%	18.1%	14.6%	9.2%
Insurance	24.9%	23.6%	20.9%	17.7%	15.1%	15.0%	14.2%	15.1%	15.7%
Pension	6.3%	9.4%	11.5%	12.6%	13.4%	15.2%	18.5%	20.0%	22.5%
Finance Companies	3.8%	4.2%	4.6%	4.3%	4.3%	4.7%	4.6%	4.9%	4.4%
Investment Companies	2.3%	3.6%	4.2%	4.2%	2.6%	3.0%	6.1%	9.1%	12.3%
Security Brokers & Dealers	1.3%	1.1%	1.1%	1.2%	1.0%	1.0%	1.8%	1.9%	2.7%
ABS Issuers	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	1.9%	2.7%
Bank Personal Trusts	0.0%	0.0%	0.0%	4.9%	6.7%	5.1%	4.5%	4.2%	4.3%
Other	0.2%	0.3%	0.4%	0.6%	1.1%	0.6%	0.9%	0.8%	0.7%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Flow of Funds

Table 4

Distribution of Equity Capital for Selected Financial Intermediaries
Five-Year Averages
1952-1993

Financial Intermediary	1952-56	1957-61	1962-66	1967-71	1972-76	1977-81	1982-86	1987-91	1992-93
Commercial Banks	48.9%	47.9%	46.6%	48.5%	53.7%	51.3%	49.1%	41.7%	42.6%
Life Insurance	16.2%	17.4%	19.0%	18.1%	12.6%	11.1%	12.3%	14.6%	16.2%
Other Insurance	22.3%	23.4%	24.3%	21.2%	20.3%	24.6%	24.4%	26.0%	25.0%
Finance Companies	13.0%	11.4%	9.8%	11.2%	11.0%	10.4%	10.2%	12.9%	12.5%
Security Brokers & Dealers	-0.4%	-0.1%	0.2%	1.0%	2.5%	2.6%	3.9%	4.9%	3.6%
Group Total	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Estimates based on Flow of Funds and FDIC Historical Statistics on Banking

Table 5

Percentage Shares of Total Household Sector Financial Assets
Five-Year Averages
1952-1993

By Type of Asset	1952-56	1957-61	1962-66	1967-71	1972-76	1977-81	1982-86	1987-91	1992-93
Deposits	17.5%	17.5%	19.7%	20.9%	25.2%	25.0%	24.1%	20.7%	16.9%
Investment Co. Shares	0.7%	1.2%	1.6%	1.8%	1.2%	1.6%	3.8%	5.9%	7.9%
Govt. & Govt. Agency Securities	9.2%	8.0%	6.5%	5.2%	4.2%	4.5%	5.5%	6.6%	5.8%
Capital Market Instruments	25.5%	31.2%	33.3%	31.5%	20.5%	16.5%	15.3%	16.4%	20.0%
Life Insurance	7.2%	6.5%	5.9%	5.2%	4.8%	3.8%	2.9%	2.6%	2.7%
Pension	4.8%	6.6%	8.3%	9.7%	12.2%	14.5%	19.8%	24.3%	27.4%
Non-corporate Equity	33.7%	28.0%	23.5%	21.5%	26.1%	29.1%	23.5%	18.0%	13.7%
Bank Trusts	0.0%	0.0%	0.0%	3.0%	4.6%	3.6%	3.5%	3.7%	3.8%
Other	1.3%	1.1%	1.0%	1.2%	1.3%	1.4%	1.6%	1.9%	1.9%
Total Financial Assets	100%	100%	100%	100%	100%	100%	100%	100%	100%

Source: Flow of Funds

Table 6

The Growth of Household Liabilities
1952 - 1993
Five-Year Averages

Five-Year Averages > > >	1952-56	1957-61	1962-66	1967-71	1972-76	1977-81	1982-86	1987-91	1992-93
Total Household Liabilities ($ Billions)	122.8	201.0	315.2	452.2	707.1	1,295.0	2,074.9	3,426.3	4,151.5
Household Liabilities as % of Disposable Personal Income	45.6%	58.0%	68.6%	67.5%	67.2%	73.2%	75.6%	90.5%	90.3%
Mortgages as a % of Household Liabilities	58.6%	61.1%	60.4%	58.1%	57.7%	61.2%	60.5%	64.2%	67.0%
Consumer Credit as a % of Household Liabilities	31.2%	28.0%	27.6%	28.3%	28.4%	25.8%	25.0%	22.6%	19.4%
Other as a % of Household Liabilities	10.2%	10.9%	12.0%	13.7%	13.8%	13.0%	14.5%	13.2%	13.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Flow of Funds

Table 7

Mortgage Originations
1983-1993

	Commercial Banks	Savings Banks	S&Ls	Mortgage Companies	Other
1-4 Family					
1983	22.2%	5.3%	40.4%	29.6%	2.5%
1993	24.9%	8.3%	17.5%	53.1%	0.7%
Multifamily					
1983	17.8%	10.2%	43.1%	3%	25.9%
1993	61.1%	3.1%	22.3%	0%	13.5%
Non-Residential					
1983	45.8%	2.9%	22.1%	5.0%	24.2%
1993	81.5%	1.2%	2.3%	0%	15.0%
Farm					
1983	29.3%	-	-	-	70.7%
1993	75.0%	-	-	-	25.0%

Source: The Mortgage Market Statistical Annual for 1994

Table 8

Percentage Shares of Total Consumer Credit
Five-Year Averages

By Type of Consumer Credit Holder	1952-56	1957-61	1962-66	1967-71	1972-76	1977-81	1982-86	1987-91	1992-93
Banks	40.2%	42.5%	45.4%	48.9%	51.3%	51.8%	49.2%	48.0%	45.3%
Savings Institutions	2.3%	3.0%	3.2%	3.3%	4.5%	5.5%	8.3%	7.8%	5.2%
Credit Unions	3.6%	5.8%	7.4%	9.2%	11.4%	13.3%	12.2%	11.7%	12.5%
Finance Companies	25.7%	26.1%	25.7%	24.2%	21.1%	20.7%	22.8%	18.8%	14.7%
ABS Issuers*	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	5.8%	14.7%
Other Holders of Cons. Credit	28.3%	22.5%	18.4%	14.4%	11.7%	8.7%	7.5%	7.9%	7.6%
Total	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

* ABS refers to asset-backed securities.
Source: Flow of Funds

Table 9

Funds Advanced by Banks to Nonfinancial Business
1952-1993
Five Year Averages

Five-Year Averages > > >	1952-56	1957-61	1962-66	1967-71	1972-76	1977-81	1982-86	1987-91	1992-93
Nonfinancial Business Liabilities ($ Billions)	204.4	285.3	413.1	658.2	1,090.1	1,879.8	3,190.1	4,876.4	5,305.0
Share of Bank Loans*	17.5%	18.2%	19.9%	22.0%	22.9%	21.9%	22.9%	21.6%	19.3%
Nonfarm Noncorporate Liabilities ($ Billions)	26.3	36.2	51.7	95.5	230.7	453.6	925.2	1,388.4	1,407.5
Share of Bank Loans*	11.1%	11.8%	13.4%	17.4%	21.3%	24.8%	25.0%	26.3%	25.4%
Nonfinancial Corporate Liabilities ($ Billions)	162.2	226.0	325.6	511.9	776.9	1,267.8	2,071.2	3,339.8	3,748.3
Share of Bank Loans*	17.3%	18.1%	19.8%	21.8%	21.8%	19.3%	20.6%	18.3%	15.7%

* Includes estimated commercial bank share of mortgage lending to businesses.
Source: Flow of Funds

Table 10

Bank Lending to Noncorporate Business[1]
As a Percentage of Noncorporate Business Liabilities
1952-1993
Five Year Averages

By Type of Bank Loan	1952-56	1957-61	1962-66	1967-71	1972-76	1977-81	1982-86	1987-91	1992-93
Home Mortgages[2]	1.6%	1.3%	1.5%	1.7%	1.9%	1.7%	1.6%	1.6%	2.0%
Multifamily Mortgages[2]	2.3%	2.0%	2.5%	2.6%	2.6%	2.3%	2.2%	2.4%	2.5%
Commercial Mortgages[2]	0%*	0%*	0%*	1.2%	3.5%	5.8%	11.3%	13.6%	13.2%
Bank Loans	8.1%	10.1%	11.8%	11.8%	13.2%	15.0%	9.9%	8.7%	7.7%
Total	11.9%	13.3%	15.8%	17.4%	21.3%	24.8%	25.0%	26.3%	25.4%

[1]Noncorporate, nonfarm, nonfinancial business.
[2]Sector's mortgage debt, multipled by the percentage share of commercial banks in each type of mortgage.
* Estimated by the Flow of Funds to be negligible.
Source: Estimates based on Flow of Funds

Table 11

Bank Lending to Manufacturing Firms
1979–1992
Asset Size in Millions

	less than 5	5–10	10–25	25–50	50–100	100–250	250 – 1000	greater than 1B
1979 Bank Share of Total Liabilities	29.62%	31.91%	33.61%	27.70%	26.36%	20.43%	14.27%	6.54%
1992 Bank Share of Total Liabilities	33.36%	36.77%	41.74%	38.66%	36.88%	32.23%	26.81%	8.43%

Source: *Quarterly Financial Report For Manufacturing, Mining, and Trade Corporrations.* U.S. Department of Commerce

Table 12

Nonfinancial Corporate Business
Reliance on Marketable Debt

Five-Year Averages > > >	**1952-56**	**1957-61**	**1962-66**	**1967-71**	**1972-76**	**1977-81**	**1982-86**	**1987-91**	**1992-93**
Total Liabilities ($ Billions)	204.4	285.3	413.1	658.2	1,090.1	1,879.8	3,190.1	4,876.4	5,305.0
Corporate Bonds as a % of Liabilities	25.1%	25.5%	22.9%	23.0%	21.3%	18.5%	16.5%	19.3%	22.1%
Commercial Paper as a % of Liabilities	0.2%	0.2%	0.3%	0.8%	0.9%	1.3%	1.7%	2.0%	2.2%

Source: Flow of Funds