
Chapter 8
Findings

Contents

	<i>Page</i>
Conclusion 1: Applications of Technology and the Changed Nature of Financial Services	192
Conclusion 2: Restructuring the Financial Service Industry.	194
Conclusion 3: Interaction Between Technology and the Legal Regulatory Structure Governing Banking	198
Conclusion 4: Financial Options for the Consumer.	201
The Equity of Choice	203
Marketing to the Consumer	203
Changes in Pricing Structure.	204
The Implications of Technology-Based Products.	205
Conclusion 5: Security and Integrity of the Financial Service System . . .	205
Theft of Funds.	205
System Integrity	207
Specific Consumer concerns	208
Conclusion 6: Integration of Capital Markets	210
The Effect of a National Capital Market on Financial Services	211
Future Impacts of Technology on Capital Markets	212
Conclusion 7: Entrants Into the Financial Service Industry.	213
The Role of Information Technology in Competitiveness	213
Availability of Services to Small Financial Service Providers	214
Entrance beholders of Communication and Distribution Systems	214
The Effect of New Entrants on Services Provided	214
The Effect of Telecommunication Regulations on Financial Services . . .	215
Antitrust Implications	215
Conclusion 8: Competition in the Markets for Financial Services	216

Findings

The financial service industry is experiencing a period of tremendous change. Economic factors, specifically those that drove interest rates to record levels during the last decade, have caused the users of financial services to seek new services. In turn, innovative providers of services have responded to consumers' new financial needs and sophistication.

At the same time, a number of technologies that have been just over the horizon for some time have begun to mature. For example, computers, still in infancy during the 1950's, are now used to deliver services directly to the consumer without human intervention, and the tendency to use systems based on information and telecommunication technologies for delivering financial services is increasing. The general public's level of familiarity with computers has increased, providing a fertile climate wherein significant numbers of users now accept the new services. Falling prices for electronic equipment and the increasing pervasiveness of such equipment throughout the economy have further reinforced this trend.

In many cases, the basic services offered by the financial service industry are not changing in any fundamental way. A deposit taken through an automated teller machine (ATM) is not substantively different from one taken by a human teller. However, the availability of technologies that can quickly process and move vast amounts of data has made it possible for financial service providers to offer products beyond those that would have been possible otherwise. For example, the money market mutual fund could have been offered a century ago if there had been some means of processing the transactions necessary to make such a fund work economically.

Further, there is a definite trend in the economy away from the older "smoke-stack" industries to the production of information and the development of those technologies that

make possible and facilitate this transition. A considerable number of entrepreneurs see potentially profitable opportunities for providing information services directly to consumers, but, in general, they have yet to find the package of services that will be successful in the marketplace. Virtually all agree, however, that financial services will be an important element of that package. Thus, the forces that are changing the basic character of the American economy are directly affecting the structure and character of the financial service industry.

The foregoing changes have affected the relationships between and among the various participants in the marketplace. Some perceive themselves to be relatively better off, while others feel they have been put at a disadvantage. Some argue in favor of policies that direct the evolution of the industry along predetermined paths, while others, somewhat fearful of foreclosing opportunities from which there could be widespread benefit in the future, argue that policy should remain neutral in order to permit the market to work its will in shaping the industry.

The present rate of change is a transitory phenomenon, and the structure and character of the financial service industry will stabilize during the coming decade. However, unless some explicit action is taken to preserve the present structure of the financial service industry, it will look much different at the turn of the century than it does now. And yet, there is no assurance that policy parameters can be adjusted with a high degree of confidence to bring about a specific, desired industry structure. Available and emerging technologies have created many opportunities for innovative people to engineer their way around regulatory barriers to achieve their goals and objectives.

In light of the accelerating rate of change in the financial service industry and in the economy in general, it is not reasonable to make any firm predictions about the structure and character of the financial service indus-

try. However, a number of conclusions that bound the range of possibilities have been developed, and these are presented in this chapter.

Conclusion 1: Applications of Technology and the Changed Nature of Financial Services

The applications of advanced information and telecommunication technologies in systems for delivering financial services change the way those services are created, delivered, priced, received, accepted, and used.

Years ago, depository institutions credited interest to savings accounts only quarterly, or even less frequently. Today, most pay interest from the date of deposit to the date of withdrawal and compound interest at intervals so short that they are nearly continuous. This change was encouraged by deposit-rate ceilings and made possible because the institutions installed computers that enabled them to handle the computational workload required to provide the enhanced service.

Rapid advances in telecommunication and information processing technologies have been followed by applications to the delivery of financial services. In some cases, the changes accompanying the introduction of technology have been imperceptible to customers. For example, one month a statement may be prepared on an accounting machine and the next, on a computer. In others, the changes have required users to change the way they use financial services and the way they interact with service providers and systems for delivering services (e.g., ATMs rather than human tellers). In addition, as users became more competent with the technology, they forced providers of financial services to change the way in which they interacted with their customers. J. C. Penney, for example, agreed to accept the VISA credit card only after VISA agreed to permit a direct connection to the network by the retailer.

In some ways, the rate of change in the financial service industry is accelerating in response to the assimilation of rapidly advancing technologies. On the other hand, the reluctance of a significant number of users to adapt to the changes is limiting the rate of change in the industry. Only a little over 30 percent of the recipients of Social Security payments have agreed to accept payment by direct deposit, thus limiting the ability of the Department of the Treasury to realize the full benefits of applying the available technologies. Public reaction to a requirement by one bank that only customers who held deposit balances of \$5,000 or more could receive service by a human teller caused cancellation of the program.

Sometimes technology can indirectly affect the availability of financial services. Technology that facilitated the development of the bank credit card is particularly important in the programs of card issuers to limit fraud and losses to bad debt. One of the key features of the cards is that the merchant accepting them is guaranteed the funds as long as the rules for acceptance set down by the card issuer are followed. As a result, many merchants are reluctant to accept a paper check at the point of sale, preferring instead to avoid the risk of loss the check entails. Thus, indirectly, applications of technology have reduced the ability of consumers to pay for purchases by check. (Ironically, the same technologies that have made the credit card attractive to the merchant are being applied to rejuvenate the check. Although they have not fulfilled the expectations of a few years ago, check guarantee and authorization services provide the

same kind of protection from risk for the merchant that is offered with the credit card.)

Technologies have also lessened the significance of distance and time of day as factors in the delivery of financial services. Telecommunication makes immediate interaction between service providers and their customers possible, regardless of the location of either. The terminal device used by either can be one that can be programmed to operate unattended, at hours that are suitable to the schedules of both users and providers and in ways that make minimization of communication costs possible. International networks of ATMs now being established will allow the consumer to access depository accounts in other countries and will negate existing restrictions on the taking of deposits across State lines. Wire transfers, for example, can be used to deposit funds to an account without regard to the bank's location.

Furthermore, technologies have also changed the nature of the depository account. While only chartered depository institutions can take deposits, others have been able to take advantage of the ability of the technologies to process and transfer large amounts of information quickly to offer various investment products that have liquidity approaching that of a deposit. In addition, the importance of banks and other institutions as depositories for funds is diminishing. The application of technology has made it possible for customers to use depository accounts only to collect funds for a short period, disburse them rapidly as needed, and place any remaining funds in short-term investments. In this situation, the depository institution must receive the bulk of its income from fees charged for service because the availability of funds on deposit that can be invested for its own account is limited. Also, a number of factors have reduced the spread between the fees paid for deposits and those earned when the funds are lent out. One way of replacing this income, selling services for fee, is the course that financial institutions are following.

Major capital investments are necessary to implement new systems for delivering financial services. However, once the systems have

become operational, the institutions that developed them can market them to other financial service providers. Purchasers of the packages are then able to offer significantly enhanced services without expending large amounts of capital.

Historically, only depository institutions have processed payments transactions and have had exclusive access to the payments systems. Now, the development of information technology has created the opportunity for others to enter this market. A substantial industry of wholesale service providers not usually seen as financial service providers now supports retail financial institutions. In fact, the existence of this industry has made it possible for many smaller retailers to exist. Yet many wholesale nonbank processors are denied direct access to the payments mechanism, which, some of them argue, puts them at a competitive disadvantage as providers of wholesale services and limits their ability to serve the needs of clients who are not part of the financial service industry. These wholesalers see financial institutions competing with them as providers of information processing services while retaining the advantages that come with exclusive access to the payments mechanism.

On the other hand, financial institutions attempt to provide the full package of information processing services needed to support all of the activities of their clients that are related to financial operations and payments. As the dependence on technology for providing financial services continues to increase in the future, this conflict between competing classes of institutions will become more intense. Depository institutions, pressured by decreasing earnings from deposits, will seek to expand their base of customers that pays fees for services at the same time that their competitors seek to provide alternative sources of financial services to those same markets.

The financial service industry is dependent on reliable and effective telecommunication facilities for its existence. If financial data, both payments and collateral information, cannot be moved rapidly and reliably worldwide, the

financial service industry could not function as it presently does. Further, systems for delivering financial services have been designed to take into account the present configuration and cost structure of available telecommunication facilities. Any significant departure from historical patterns could have a direct and major impact on the costs of delivering financial services, the structure of the industry, and the distribution of costs among the various participants.

For example, home banking systems have generally been designed so that the user need make only a minimal investment in terminal equipment and can rely on the computer operated by the service provider for the processing required. Implicitly, this type of design assumes that low-cost telecommunication facilities are available and that the cost to the user of a lengthy, interactive session with a host computer will be minimal. On the other hand, if local telecommunication costs rise significantly, such systems may have to be redesigned to minimize the connection time between the user and the provider's computer; this could result in excessive cost to the user of a terminal. Similarly, the large amounts of capital used to establish telecommunication networks operated by providers of financial services under present pricing structures could effectively be lost if changes in telecommunication result in prohibitive costs of operation.

Float, its cost, and who benefits from it have long been at issue. The various financial service participants have developed strategies to take advantage of float that range from con-

sumers issuing checks 2 or 3 days before they deposit funds to corporate treasurers disbursing funds from remote locations. The technologies, on the one hand, provide the opportunity essentially to eliminate collection float from the system while, on the other hand, offering the payer the opportunity to control with absolute certainty the time at which a disbursing account is debited. Businesses, then, could revise trade discounts to reflect the new realities by allowing, for example, discount if good funds were available after 12 or 13 days instead of allowing it if the check is postmarked on or before the 10th day. Similarly, consumers who know that funds will be available on a specific day could schedule their payments accordingly, rather than playing games with the system, as they do now.

Finally, technologies make it possible for individuals, businesses, and government to keep minimal idle balances. Because all parties can know exactly when good funds are available and when disbursements must be made, they can move all funds not needed for day-to-day transactions into investment accounts that pay market rates of interest. Then, funds can be moved to transaction accounts that either pay no interest or pay below-market interest rates for minimal periods to meet requirements for disbursements and/or to receive funds from others. The net effect of this tendency will be a constantly increasing downward pressure on the balances of transaction accounts held by depository institutions and others.

Conclusion 2: Restructuring the Financial Service Industry

Some patterns in the ongoing restructuring of the financial service industry are discernible: the present fluidity and rapid change will continue for some time, but many uncertainties cannot now be resolved and many alternative possibilities exist.

The structure of the financial service industry was, at one time, clearly defined. Most individuals and businesses conducted their financial affairs primarily with depository institutions such as banks, savings and loan associations, and credit unions. The financial

service industry is now changing: new products are being developed and offered and the roles of traditional institutions are shifting. The simplicity of the industry has all but disappeared.

Today the financial service industry consists of a variety of organizations, ranging from traditional depository institutions and related financial organizations that have expanded services, such as securities firms, to such nontraditional financial service providers as supermarkets and retail department stores. A variety of organizations offer investment opportunities in an increasingly competitive market. Promotion of products and target marketing has become increasingly important for financial service providers who are looking for new ways to reach users and retain and gain market share; e.g., television and direct mail advertising has become common.

Depository institutions have begun offering brokerage services (INVEST) and insurance (mutual savings bank life insurance in Massachusetts and New York). To compete with other financial service providers they place greater emphasis on serving the customer on a 24-hour basis as well as on making convenience a priority (ATM deployment and home banking).

Depository institutions are governed by strong regulations, many of which were written at a time when the competitive character of the financial service industry was very different from what it is today. For example, regulations which set ceilings on deposit interest rates at federally insured commercial banks, savings and loan associations, and mutual savings banks restricted the ability of depository institutions to compete with money market funds, a product development that was not anticipated at the time the regulations were framed. Some regulations, meant to be protective, must be adapted to the changes the industry faces. Some new regulations have been necessary. For example, the Garn-St Germain Depository Institutions Act of 1982 amended numerous Federal banking laws and created five new ones, allowing depository institutions

to offer the money market demand account and the Super NOW account.

Major influences for the recent changes in the industry have been high interest and inflation rates and, therefore, the high opportunity cost of standard consumer savings instruments, resulting in a phenomenon known as "disintermediation." Funds flowed out of the depository institutions into nontraditional instruments and institutions as many individuals shifted their assets in order to obtain the high interest rates. Many of these new instruments were created by organizations outside of the regulated environment of depository institutions. One example is the money market mutual fund created by the securities industry, which works like a combination savings and checking account. Funds invested in money market mutual funds earn a market rate of return, and the funds are as liquid, for all practical purposes, as a checking account. The customer accesses the account with a share draft, which works in much the same way as a check and is considered to be equivalent by most users. The only practical difference is that, in many cases, there is a minimum amount for which the draft must be written, usually \$500.

In the new competitive climate, nontraditional financial service institutions quickly realized the tremendous potential in providing financial services. They also realized the ease with which they could enter this industry. For example, J. C. Penney, a major national retailer, operates a highly sophisticated online communications system that supports over 35,000 online terminals. J. C. Penney expanded the usage of its communication system and began processing credit card transactions for oil companies. Outside of its role in financial services as an extender of credit to retail customers, J. C. Penney has become a financial service provider of a different sort by performing functions normally associated with a bank.

Supermarkets have become focal points for ATM deployment and point-of-sale programs. Safeway, an Oakland, Calif., supermarket

chain, has announced plans to develop and market a national ATM network. Some supermarkets intend to replace banks and others as operators of switches for financial transaction networks and are highly competitive in this area. They are also taking a major role in the decisionmaking surrounding these activities. Petroleum companies, with their vast chains of retail gas stations, are following the lead of the dry goods and grocery chains.

Unlike most depository institutions, many securities firms have a national presence. They can conduct business nationally with few restrictions. In addition to brokerage and investment banking services, many such firms now offer a wide variety of consumer financial products, such as money market funds, with debit card and ATM access, as well as asset management accounts (a combination of a depository account and a margin account). These new product offerings have gained a significant market. For example, the Merrill Lynch Cash Management Account, which works as both a savings and an investment instrument, serves over 1 million people. Customers can access their accounts via telecommunication networks operated by the securities firm from any office, regardless of location.

Although insurance companies are licensed separately by each State, many serve a national market through networks of company-operated offices and independent agents. Many insurance companies are augmenting traditional product lines with new offerings that directly compete with those offered by other providers of investment services.

The concept of the "boutique" bank, which serves a highly specialized market, is becoming more widely accepted as the industry reorganizes. National Enterprise Bank, which opened in Washington, D. C., in August of 1983, is one such bank. Enterprise is aimed at professionals—doctors, lawyers, dentists, accountants, and consultants. Its intent is to serve the affluent professional in a specialized fashion far different from that of a commercial bank. Palmer National Bank, in Washington, D. C., is another newly opened boutique

bank. It specializes in financing for small, high-technology firms. Many of Palmer National Bank's clients have financial service requirements that are often too small to be of interest to big banks with international experience.

By joining a local, regional, or national network, these small institutions can immediately deliver services to a large number of locations in direct competition with major institutions. Despite speculation, there is little doubt that these organizations will survive. Unlike the regional giants, specialty companies and small-niche companies that cater to a narrow population segment have positioned themselves to do one thing superbly. It is possible that the industry may begin to be shaped like a dumbbell, with a large number of small banks serving local needs at one end, a relatively small number of large banks providing service nationwide at the other and, in the middle, virtually no midsize banks serving regional markets.

In sharp contrast to the specialty provider is the financial supermarket. Offered as a one-stop financial center offering banking, insurance, brokerage, and investment opportunities, the financial supermarket has been a successful concept for both Sears Financial Network and Merrill Lynch, among others. Both of these organizations offer brokerage services in stocks, bonds, options and futures contracts, insurance, savings instruments, mortgages, consumer loans, retirement savings plans, and even credit cards to their customers. However, the degree to which the service packages of each firm are truly integrated varies significantly. Financial supermarkets seem to have found a niche in the ever-growing consumer financial service market. This concept is attractive because of the low cost of entering the business as well as high potential profits. The financial supermarket has not yet matured, nor has its long-term viability been demonstrated.

Legal barriers still hinder the entry of some businesses into the financial service market and the cross-entry of some providers into

other areas of financial services. In most States, and at the Federal level, banks are barred from insurance (except for credit policies), from investment banking, and, to a decreasing degree, from interstate branching. Present regulatory barriers prevent brokerage houses from operating as a financial supermarket in the true sense of the word. While brokerage houses perhaps come closest to achieving true integration, they cannot accept deposits or have direct access to the payment mechanism, and therefore cannot truly offer banking services. Although no one is sure what combinations of businesses will prove to be the winning ones, to the extent that an organization can achieve a greater national recognition in the market, it will enjoy an advantage over its competitors.

For many types of organizations to build a financial supermarket, a number of mergers and acquisitions may be necessary. Several nonbank providers have acquired banks to have access to the payments mechanism and Federal deposit insurance. These financial conglomerates have come along much faster than expected because of the profound changes in insurance, banking, and securities brought about by the interplay of high interest rates, technology, and regulation.

Aside from economic conditions, which many claim are a driving factor behind the changing structure of the financial service industry, is the major role technology has played. As financial service companies continue to rely heavily on new technologies and automated processes to provide services, new services that could not be offered without the support of such technologies emerge. Some new technologies allow a firm to produce two different types of financial services together less expensively than for two individual firms to produce them separately. Online communication systems enable instantaneous debit/credit of financial accounts, and immediate execution of orders to buy and sell securities. Brokerage sales across the country are facilitated by immediate real-time access to financial information.

The significant changes in the structure of the financial industry bring to light several important points. Technology has been one key factor enabling nontraditional financial service providers to enter the market. The technologies necessary to drive the systems that support financial services are already in the hands of new entrants because such technologies can also be applied to support many different industries. As a result, many potential entrants are able to offer financial services using established computer and communication systems. Some firms have entered the market for retail financial services, some have become wholesale providers, and others have entered both markets.

Industry restructuring has brought about significant potential for industry consolidation as the functions that support the industry begin to overlap. While depository institutions are technically the only organizations allowed to accept deposits, nondepository organizations have developed products that are near-deposits and thus compete with products of depository institutions. Money market mutual funds, in essence, accept deposits and are viewed by those who own them as savings instruments. Insurance contracts, particularly those that allow the owner to control the allocation of funds among alternative investment opportunities and that accumulate cash value, can also be viewed as close substitutes for deposit instruments.

The traditional categories of depository and nondepository institutions are no longer clearly delineated or functionally separate. These changes create more product choice for the consumer, but also increase the amount of consumer confusion in choosing and using services. Since so many of the products and services from the various financial service organizations are similar, many consumers are unaware of the significant differences.

Regulation, once a guiding force with respect to how the industry operated, no longer has as commanding an influence. Interstate

branching and deposit-taking is now a reality,* influenced considerably by the deployment of ATMs. Many State banking laws now provide for reciprocal interstate branching and may result in the emergence of major regional banks that maintain offices in several States. Massachusetts, for example, passed an act, entitled "An Act Relative to Branch Offices and Acquisitions of Financial Institutions," that establishes new authority for mergers, branching, electronic branching, and mortgage lending by Massachusetts financial institutions. The act is limited in its operation to activities involving five New England States (Connecticut, Rhode Island, Maine, New Hampshire, and Massachusetts).

The changes in the structure of the financial service industry now occur at such a rapid

*several states have reciprocity agreements for interstate deposit-taking by ATM—e.g., Washington, D. C., and Maryland.

pace that it is no longer a question of when certain changes will occur, but of how to implement the changes and how they will be accepted. It is difficult to predict the ultimate consequences of the restructuring; however, there are indications that the financial service industry is changing from a traditional to a self-service industry. The overwhelming use of ATMs and the promise of emerging remote banking/remote information systems provide evidence for this claim. Many of the consumer-oriented systems that deliver services to the home are being developed by a variety of joint ventures that offer a myriad of services, not only in banking but also in entertainment, education, and other financially related services. Although the traditional depository institution will remain, its role may well change. There will continue to be new innovations and players in the industry, and a market willing to test them.

Conclusion 3: Interaction Between Technology and the Legal Regulatory Structure Governing Banking

Some of the existing laws and regulations pertaining to the financial service industry are ineffective or inapplicable to current and potential changes in financial service institutions and products. Both Federal and State legislative bodies have reacted to changes in the market and have either ratified events that have taken place or taken advantage of and encouraged perceived trends.

A significant portion of the regulatory framework governing the financial service industry, written in the 1930's (Banking Acts of 1933-35), 1940's, and 1950's (McFadden/Douglas, Glass/Steagall) is still in force today. A large number of the restrictions imposed on the banking system were a result of the Great Depression of the early 1930's. The restrictions were an attempt to meet the demands for financial services provided by firms that were both sound and secure and in an environment conditioned by a significant decline in

the money supply which led to rapid deflation, a large number of financial institution failures, and a very high level of unemployment. Today, the environment is much different, and the needs of both consumers and businesses have changed.

The Banking Acts of 1933 and 1935 were designed to promote safety and soundness in banking. While safety and soundness are still the main concern, the environment and the consumer/business needs have changed significantly. Today, only a few of those regulations adequately meet the needs for which they were designed, and some may actually be detrimental to the industry they regulate.

When the financial service industry first became regulated, the regulations were written according to functions performed by the specific institutions, and the legislation became tied to the institution it regulated instead of

the function. The institutional lines are now fuzzy.

Existing Federal laws and regulations have made it increasingly difficult for banks to compete against new entrants into the markets where they have traditionally had an almost exclusive franchise. Several points must be considered, however. Banking is looked upon as a special business that is key to the economy. Consistent with this view, particular steps were taken to insulate it from other lines of commerce and to limit the risks that banks were permitted to take. The introduction of deposit insurance helped limit the exposure of depositories to risk. On the other hand, existing regulations are designed to prevent banks from exerting undue influence over other lines of commerce.

Presently, the roles of the various Federal agencies with respect to regulating depository institutions are complex. National banks are chartered by the Comptroller of the Currency. Federal savings and loan associations and Federal savings banks are chartered and regulated by the Federal Home Loan Bank Board. Federal credit unions are regulated and insured by the National Credit Union Administration. Bank holding companies are regulated by the Federal Reserve Board.

The United States has maintained a dual system (Federal/State) for the regulation and supervision of banking. This dual banking system has played a useful and constructive role in encouraging innovation in the financial regulatory environment and in helping accommodate local differences in the needs of banking organizations and their customers. The system worked well because, for the most part, the goals of regulation were commonly shared. However, this appears to be breaking down. States are beginning to allow incredible expansion of power for banks and thrift institutions that go far beyond standards allowed by Federal law and yet still benefit from Federal protection. Banks have demonstrated that they will establish offices in States that offer a particularly favorable regulatory climate.

One of the concerns depository institutions face is that a growing number of differently regulated financial service organizations are able to offer a broader range of financial services than the depository itself can offer. For example, Merrill Lynch can offer securities services, real estate services, and a package of additional financial instruments, such as the money market fund (cash management accounts which serve as high interest-earning savings instruments), and, to a limited extent, transaction accounts. While it is possible for nontraditional providers to compete head-to-head with banks by offering new substitutes for banking products, depository institutions do not have the same leverage.

Many of the nontraditional financial service providers are improving their positions vis-a-vis banks by establishing or acquiring commercial banks or thrift organizations (e.g., Dreyfus Corp./Lincoln State Bank of East Orange, N.J.). Travelers Insurance Co. has requested regulatory approval to offer FDIC-insured* instruments to its customers through a trust subsidiary. Depository institutions, except in some States and for some grandfathered institutions, are not allowed to own insurance companies nor are they under any circumstances allowed to provide a full range of investment services, although holding company affiliates may engage in discount brokerage.

Organizations, however, have found ways to circumvent the existing financial service regulatory structure. Technology has certainly been one of the driving factors. The ATM, for example, enables interstate access to individual bank accounts, and in some instances local regulatory authorities and legislation have permitted interstate deposit-taking, as well. (Douglas and McFadden Acts, prohibiting interstate banking and deposit-taking, respectively, are ineffective.) This same technology is being applied by nondepository institutions, such as supermarkets and other retailers (e.g.,

* Federal Deposit Insurance Corporation.

Publix supermarket, Safeway, Sears) to provide services in direct competition with banks and/or their subsidiaries and service corporations. These organizations are not taking deposits and are not under the same banking regulatory scrutiny as depository institutions, even though the systems being deployed must meet all regulatory requirements with respect to Regulation E and other consumer protection.

Notwithstanding Federal and State laws and regulations, wholesale banking has been done on a national basis for quite a while. Banks are able to solicit business and establish corporate offices on an interstate basis. Advanced communication systems enable real-time access to financial information so that institutions are able to conduct business, including movements of funds, regardless of the locations of their customers.

The “nonbank” bank developed as a result of a loophole to the Bank Holding Company Act. Nonbank banks are commercial banks with either National or State charters that elect to abstain either from accepting demand deposits or from making commercial loans—two activities necessary to fall within the definition of a bank for Bank Holding Company Act purposes. Both the Federal Reserve and the Comptroller of the Currency have taken actions to slow, if not halt, increases in the numbers of nonbank banks and branches.

Congressional actions, responding to market forces and events, have further weakened the provisions of existing legislation. The Garn-St Germain Depository Institutions Act of 1982, for example, permits interstate acquisitions of failing depository institutions if they meet certain criteria. Several savings banks have acquired savings and loan associations in other States. A major money center commercial bank has been permitted to acquire two sizable out-of-State savings and loan associations.

Many new regulations, primarily those affecting electronic funds transfers (EFTs) and written with the expectation that the delivery systems would be fully electronic, do not apply

to the present environment. Debit cards at point of sale, for example, are still heavily paper-based and therefore do not fall under the auspices of Regulation E* (protecting consumers using EFT and governing the use of EFT). Actually, the debit card, which in most circumstances is not processed electronically, falls between the “regulatory cracks” and is not under any regulatory authority when used to create a paper document at the point of sale. Many new payments services and deposit-like instruments have sprung up outside the framework of governmentally protected and supervised depository institutions.

The administration has reacted to events in the market that have put banks at a comparative disadvantage by suggesting legislation which it entitled, “The Bank Holding Company Deregulation Act.” This act would enable banks to offer new products and services and would address the following four areas: 1) the mix of products and services that would be offered by the commercial banks, 2) the process for gaining regulatory approval for banks entering many of the permitted service areas, 3) the reduction of competitive advantage enjoyed by some (because of disparities in the regulatory structure) by moving to functional as opposed to institutional regulation, and 4) the limitation on cross-subsidization by requiring banks to establish segregated subsidiaries for offering new products. Banks below a certain threshold in size would be treated differently from larger banks in some respects.

Significant changes have occurred to update some of the outdated banking legislation and incorporate new measures for the banking industry. One example is the Garn-St Germain Act. This comprehensive statute contains eight titles that amended numerous Federal banking laws and created five new ones. Another is the Depository Institutions Deregulation and Monetary Control Act of 1980, which, in addition to approving a money mar-

*The Federal Reserve Board has put out for *comment a pro*posal to cover paper-based transactions under Regulation E. It has also issued a proposed rule to bring paper-based debit cards under Regulation E [Reg. E; Docket No. R-0502].

ket deposit account for banks, provides for the phase-out and ultimate elimination of all Federal limitations on maximum interest rates paid on deposits in financial institutions. Both were passed in response to compelling changes in the marketplace and are designed to correct a lack of competitive parity among competing providers of financial services.

In some cases, developments in the provision of diversified financial services have been spurred by State laws. The most recent example of this is South Dakota's allowing State banks to own full-line insurance companies. Out-of-State bank holding companies, recognizing market trends and pressures, have shown interest in acquiring or forming South Dakota banks. Currently, many State legislatures have shown interest in liberalizing bank regulations in order to allow forms of interstate banking.

Functional regulation is being considered as an alternative to the present regulatory structure. Such regulation would subject all firms performing the same function to the same regulations imposed by the same regulatory agency. Those who support such a change in regulation feel it will provide a level playing field for all institutions providing the same types of financial services. Additionally, its proponents believe it would provide competitive equity among the depository institutions and nonbank institutions.

Technology development, economic conditions, and other market forces have changed the structure of the industry to such a degree that the boundaries in the existing legal regulatory framework have less and less of an impact. ATM systems permit access to accounts on a national basis; they even permit access to money fund accounts held outside of depository institutions (First Boston/Fidelity). Only the limitations on interstate deposit-taking by banks seem to be holding up, and these are weakening, as evidenced by interstate ATM access reciprocity agreements between States (D. C./Maryland).

A major goal of financial service regulation is to assure the safety and soundness of the financial system. Technology and market forces have introduced significant changes in the industry. Based on available evidence, technology has brought about no apparent reduction in the safety and soundness of the industry. The changes have encouraged Congress to begin reexamining existing legislation, but for the most part Congress has directed its most recent efforts toward catching up with the events that have been occurring in spite of the legal regulatory barriers. In light of the realities of the technology, regulatory consideration and emphasis may be better placed on the impacts of new services on providers and users rather than on the technological developments that ultimately drive them.

Conclusion 4: Financial Options for the Consumer

A primary consequence of the changes in financial services has been the proliferation of options available to users. While many share common characteristics, there are technical differences between them that could catch the user who is unaware of their true implications.

Today, there are more payments and investment options and a greater variety of institutions providing financial services to the consumer than ever before. Choices have ex-

panded in all areas of financial decision-making.

Since the introduction of the bank credit card in the late 1960's, the consumer has benefited from the convenience of a readily acceptable payment mechanism, which provides a means of payment much more negotiable than a check but safer than cash. In the mid-1970's money market mutual funds were introduced, allowing the consumer to invest relatively

small amounts of money at substantially higher interest rates than with bank savings and time deposits—without sacrificing liquidity and at apparently minimal risk. By the 1970's, deregulation legislation recognized both the inability of banks to compete explicitly for small-denomination consumer funds under the current interest rate restrictions, as well as the importance to some consumers of insured alternatives to money market mutual funds. Also inherent in the legislation was the recognition of the importance of consumer savings to the health of the economy.

Banks can now offer federally insured money market accounts and interest-bearing accounts that are the functional equivalent of checking accounts (NOW and Super NOW accounts). In addition, penalties for early withdrawal of funds from certificates of deposit have been lessened. Through changes in the regulations affecting Individual Retirement Accounts (IRAs), all consumers can enjoy some tax-postponed income. The systematic dismantling of Regulation Q will eventually completely deregulate interest rates on time and savings deposits.

The individual also has a greater number of options with respect to the financial institutions with which he can do business. The lifting of regulatory restrictions and the development of innovative products inside and outside the banking industry have allowed financial institutions to become full-service providers, differentiating their products and approaching different market segments. Savings associations are allowed to extend consumer credit, which puts them in direct competition with commercial banks and consumer finance corporations and, to a lesser extent, retail organizations. They are also able to offer NOW and Super NOW accounts. Asset management accounts available through securities brokers are accessible through debit and credit cards, which have the same characteristics as the plastic counterparts issued by the banks. Owing to the broad acceptability of the credit cards issued by some companies, primarily VISA and MasterCard, the debit card has become a "paperless check" that is more

readily accepted than the traditional paper instrument.

Another option for the consumer of financial services is "one-stop shopping" through the financial supermarket, where all banking,* investment, insurance, and real estate needs can be served in one place. The most visible examples are the Sears Financial Centers, which are under the umbrella of a retailing organization rather than a traditional financial institution. Other national and regional retailers as well as bankers and brokers are considering the same concept. Also, niche marketing—the offering of services tailored to the specific needs of small groups—is available through financial service boutiques. The upscale consumer and specific occupational groups (e.g., farmers) benefit.

Technology provides the competitive edge, making a particular product possible or allowing an institution to take advantage of economic conditions. The most widely available technology-based services are the ATM and automated deposit services (ADS). At-home banking, which began with simple telephone billpayer services, is now being introduced through videotex services and the computer. Point-of-sale (POS) electronic payments systems, which were attempted in the 1970's, are being attempted again in specific trials.

The distinction between those options available to the consumer through technological means and those which seem to be the result of the condition of the economy, product innovation, and legislative changes is not as clear. Many of the options which seem to be the result of economic conditions such as interest rates—e.g., the money market fund—are facilitated to a great extent by the technology. These funds have been automated since their introduction and, considering the size and number of participants in the individual funds, might not have been possible with manual systems.

*Physical deposit-taking services cannot be offered at all locations.

The Equity of Choice

Choice, in an economic sense, is good, and as such, the assumption underlying the increase in financial management options is that it must benefit the consumer. However, two basic issues must be examined in this context:

1. Do all consumers actually benefit from the current expansion of choice in instruments and institutions?
2. Are there countervailing trends in the financial service industry that may eventually limit options for the consumer or for particular groups of consumers?

There is some evidence that certain classes of consumers are becoming more sophisticated and are demanding new financial services. These consumers are becoming asset managers. However, although most consumers are aware of the choices available to them, many are still confused by the options. Certain segments of society will prosper under a system of greater choice: they will have the necessary information and know-how to make use of the information to their financial advantage. However, other segments may be less fortunate. According to the available trade press, it appears that most financial institutions wish to attract the upscale market, not the lower income and lower balance consumers.

Only a small number of consumers fall within the definition of upscale, yet nearly all consumers require financial services of some sort. Those consumers who are not upscale are likely to experience a decrease in available options. A particularly obvious example of this movement occurred in 1983, when Citibank instituted a policy that barred customers with a balance under \$5,000 from dealing with a human teller, Citibank's action met with strong opposition and was eventually reversed. It is difficult to say whether other institutions would have instituted the same or similar policies.

There are more subtle means of reaching the same end, i.e., moving an institution's less profitable customers out of the bank lobby. One way is to price the services of a human

teller higher than those of an ATM. Others include having fully automated branches in convenient locations and full-service branches in limited locations, or creating branches where all teller operations take place at the ATM, but personnel on location can assist if there are problems or can carry out functions not possible through an ATM.

In order for the consumer to take advantage of the increased number of alternatives available for financial management, he must understand their function and benefits. Commercial banks and savings institutions may not be equipped to provide consumers with the informed assistance necessary for helping them make increasingly sophisticated decisions. In many cases the bank employee knows as little about the new products and services as the customer he is trying to help. Although the consumer may prefer to deal with a local institution, he will tend to do business with those institutions that not only offer him the best return, but also provide good information. In some cases, that will be the local institution; in others, it will be an institution with a regional or national presence and a more sophisticated marketing approach. This, in turn, may mean a flow of funds out of the community.

Within a single organization, those profiting from the system and those providing information may be the same, creating a potential conflict of interest. In the past, one bank's products were the equivalent of the next bank's, the products offered were straightforward, and competition was based not on the relative merits of each but on the "extras" -i.e., the service offered. Although Truth in Lending Act regulations require that the terms and interest of various credit instruments be clearly stated for purposes of comparison by the consumer, there is no comparable requirement for information about investments.

Marketing to the Consumer

It is no longer clear what the purpose and role of depository institutions is. No longer do such institutions have a unique niche in the marketplace. Under these circumstances, in-

formation available to the consumer may sometimes be biased. In the highly charged competitive atmosphere that now prevails in the financial service industry, information may either obscure the real situation or inflate its advantages. A particularly vivid example occurred the first year that IRAs were made available. Advertisements stated that the holder of an IRA could be a millionaire by retirement; however, the ads misled the public by failing to put the notion in economic perspective. Although the consumer should apply the principle of "caveat emptor" to the management of his financial affairs, he has come to perceive banks as noncompetitive, and he conducts his business with banks based on this perception.

In addition to the issue of consumer confusion about available options, which in some ways can be solved by making information available, there is also the question of consumer awareness and education. Consumer research shows that beyond a certain number of variables, the consumer tends to be unable to process information. Often, increasing the amount of information available does not help. Educational differences or the predisposition of the consumer may preclude him from processing the information in a way that would facilitate decisionmaking. Also, the consumer needs more time to make intelligent decisions about the management of his assets, which could force changes in the industry in a number of ways. First, it seems to support the need for a class of personal financial advisors. This trend is likely to continue as the number and complexity of options available to the consumer increases. Unfortunately, there is no certifying process or standard form of education required for these advisors.

Second, it could also eventually affect the number of options offered by the industry. If institutions find that their clientele are confused and unwilling to spend the time to make a decision among a wide variety of choices, the institutions may decrease the number of options available. For example, as of October 1, 1983, banks were allowed to offer certificates of deposit in any denomination for any time

period, with fewer withdrawal penalties. They may, however, benefit more from offering only specific products to avoid the confusion attached to infinite choice, in much the same way that a manufacturer will package his products in prespecified amounts. A situation may evolve where the industry is allowed to offer many alternatives but chooses to offer a limited selection based on the preference of a particular market segment or, -perhaps, the mass market.

Changes in Pricing Structure

The one trend that is likely to have the most significant effect in the near term on the availability of options to the consumer is the explicit pricing of services.

Competition has forced the industry—in particular, banks—to reduce the "spread," or the differential, between interest earned on assets and paid out on liabilities. In the past, this differential has been the major source of income for financial service providers; however, new sources of income are needed to replace income lost from the reduction of spread. In addition, higher balance, static accounts subsidized active accounts having a low-to-zero balance. As a result of the change in the industry's competitive structure, customers are beginning to be charged for the cost of their services. In a highly competitive, deregulatory atmosphere, cross-subsidization is infeasible because the larger, more profitable account holders will tend to move to those institutions where they can earn the highest interest rate.

Fee-for-service pricing, in most cases, will encourage the consumer to use those services that are the least expensive and may therefore limit his use of particular products and services. However, in certain cases he may not have a choice; for example, most households need checking accounts to manage their accounts. This trend toward explicit pricing seems to affect payment mechanisms the most and therefore will have the greatest impact on those consumers whose financial transactions are heavily payment-oriented.

The Implications of Technology-Based Products

Recent work published by the Federal Reserve Bank of Atlanta projects the rate at which checks will be displaced by other, electronic, methods of payment. Although it still represents a small percentage of total account activity, the steady growth in the deployment and use of ATMs shows some willingness by the consumer to accept technology-based services when they meet specific needs. In the Atlanta analysis, the first stage of check displacement will be in the cash-dispensing function. As long as the infrastructure for the acceptance of electronic payment remains underdeveloped, there will still be a need for paper-based instruments.

Eventually, the entire population may have to participate in the system. This becomes particularly obvious on examination of direct deposit services. Since the U.S. Treasury began encouraging direct deposit of Social Security payments, the penetration of direct deposit has gone from 11 percent of total payments to 33 percent.¹ A Social Security system where 100 percent of all transfer payments are directly deposited would require that all recipients hold accounts with a financial institution or be provided some alternative means of receiving payments electronically.

Currently, 17 percent of all households do not have any relationship with financial in-

¹*Economic Review*, Federal Reserve Board of Atlanta, August 1983, p. 33.

termediaries, either because the consumer chooses not to establish this relationship or because he is an undesirable customer and therefore cannot find a financial institution willing to do business with him. With direct deposit there is pressure on both the individual and the institution to form a relationship. This pressure for institutions is in direct opposition to the competitive pressures they feel from the rest of the industry to rid themselves of unprofitable accounts. Yet, these accounts need not be unprofitable for the bank if it charges appropriately for its service. However, the potential exists of charging an individual, who is in essence forced into the system, a disproportionately high portion of his income. * There is some argument for the subsidization of these accounts, but with the current competitive state of the industry, it is doubtful that a financial institution would be willing to bear those costs. It is not unreasonable to expect the organization that benefits from direct deposit, in this case the U.S. Treasury, to pay these costs.

As direct deposit of government transfer payments becomes more common, other regular income payments may also be paid directly. The issue on a larger scale is *not only* who pays for the service, but also whether the consumer can be forced to establish a relationship with a financial service intermediary in order to receive his salary.

*Some individuals use services for a variety of normative reasons that may actually be more expensive than would be charged by a financial institution.

Conclusion 5: Security and Integrity of the Financial Service System

The application of advanced information technologies to financial services significantly changes the ways in which, and the extent to which, payment and transaction systems and the users of these systems are vulnerable to system failure, disruption, theft, error, and invasion of user privacy.

Theft of Funds

There are two kinds of threats to financial service systems: 1) those threats inherent in the system, that usually require technical solutions; and 2) those that are perpetrated by individuals who wish to compromise the system

and that require more complex solutions, including technology. Some types of crime are possible because of the nature of the paper-based system—e.g., theft of funds sent through the mail, check forgery, and even, to a certain extent, credit card counterfeiting. Technology-based systems can provide solutions; however, by providing new points of entry into the system, they offer potential for new kinds of fraud. Future crimes involving financial transaction and payment systems will primarily involve a computer simply because one is inevitably part of a large-scale, modern-day financial system. The question of computer security touches every aspect of the financial service industry. As the volume of EFT transactions rises, it becomes increasingly important that financial information be secured against unlawful entry and that a system of law be developed under which computer criminals can be prosecuted.

Some perceive technology as a solution to problems that plague the consumer of financial services. Credit card fraud, which is frequently cited as a growing problem in the industry, can be made more difficult by the use of sophisticated technologies. Because of consumer protection legislation, fraud is primarily a provider problem. The consumer is protected from illicit use of his credit cards, and if sufficiently informed, he can prevent all but a minimal financial loss from the fraudulent use of his card. Both VISA and MasterCard have introduced or are planning the introduction of cards that are expensive and difficult to counterfeit. It is difficult to say whether these cards will in the long run reduce fraud, since it will be some time before the effect of their introduction and use will be felt. The cost to produce these cards will be much greater than that for current credit cards. Although the consumer will explicitly or implicitly pay the cost of the card, it may not mean additional financial burden for the consumer in the long run because of the reduced costs of fraud to the card user.

Recent concern in the area of consumer financial services has revolved around the relative security of access devices and the need

to identify positively the EFT user. As systems become more complex and a greater percentage of the population begins to use home banking and POS systems, problems with the current means of identification will become more obvious. With ATM the consumer's loss is limited by the amount of cash he is allowed to withdraw from the system. Although his liability for unauthorized transactions is limited, under the Electronic Funds Transfer Act (EFTA), his financial loss could be greater when more sophisticated financial transactions are involved and if those transactions are not reported within the time required by law. This risk could affect the willingness of the consumer to use these systems, and therefore the rate of acceptance of these services. In that event, the market could force the providers of services to secure systems better. It should also be noted that to the extent that the law places responsibility for losses on the provider, it provides additional impetus for providers to secure their financial systems.

Solving the identification problem is even more difficult when placed in the context of the home or workplace. The volume of business at an ATM may allow the use of expensive identification technologies that would not be feasible at a place of business, and certainly not at home. Now the major means of identification in these systems is some form of alphanumeric code or personal identification number (PIN), again not identifiable with a specific individual. Although banking terminals in these locations do not yet dispense cash or a cash equivalent, they certainly provide the opportunity to transfer funds among accounts or to embezzle electronically. These problems will become immense if all personal computers are equipped to access videotex services and electronic financial services and if a larger percentage of the population has access to these terminals.

EFT also generates new kinds of personal security problems—an individual using an ATM to receive cash maybe particularly vulnerable to robbery. During normal business hours, a traditional brick and mortar facility provides the individual with security during

and after a transaction. An ATM located away from this structure may place the user in a vulnerable position. Even those ATMs located at bank branches can be unsafe when used in nonbanking hours. It is difficult to assess the seriousness of the problem because most institutions are unwilling to divulge information on security issues for fear of discouraging use of the systems. Often, the robberies that occur at ATMs are not reported as such.

The smart card is another new technology claimed to be more secure than existing card technologies. The microchip-implanted card has different levels of security, but the future role of the smart card in the financial service industry remains unclear.

In the commercial environment, the security of payment systems is also an issue of significance. The increasing use of computers to initiate payments automatically raises the need to establish the identity of the computer initiating a financial transaction, just as, in the past, it has been necessary to establish positively that a payment order issued by a human is authentic. Financial systems that perform accounting as well as payment functions must be auditable, lest an unauthorized feature be hidden in the computer programs that constitute them. Care must be taken to limit access to financial information that may be of value to an intruder, even if there is no unauthorized transfer of funds. Finally, superimposed on these requirements are all of the concerns that pertain to individual users of financial services, particular services that entail remote access to financial service systems.

System Integrity

Systems for delivering financial services can also be compromised by a number of factors that are inherent in the operating environment but are, nonetheless, capable of interrupting service.

In the more traditional systems for delivering financial services, breakdown of system integrity is possible. Records can be lost, along with the audit trails necessary to reconstruct them. Checks and balances built into proce-

dures for processing transactions can be circumvented for expediency or can fail to operate under an unanticipated set of circumstances. However, human involvement in the delivery systems can be instrumental in detecting breakdowns of system integrity when they occur and in implementing the steps to repair or minimize the resulting damage.

On the other hand, financial service delivery systems that rely heavily on advanced technologies are subject to more breakdown factors than those that can damage or destroy simpler technologies. At the same time, they may be built to include protections that cannot be incorporated into simpler systems.

Computer programs, for example, are designed and built to handle a predetermined set of conditions. Any data values not falling into one of the defined categories should be rejected by the program and examples of such occurrences should be included in the tests conducted before a program is put into operation. However, even though computer programs are "validated," exhaustive testing is not physically possible, and there is always the chance that some combination of data can be entered that will produce totally unanticipated results. If the system operator is lucky, the impact will be large enough that it will be noticed immediately and corrective action can be taken. On the other hand, if the error is subtle, its effects, though significant, can go unnoticed for years. In the aggregate, the impacts could be significant, although no one incident may be great enough to instigate steps to correct the error.

Computers rely on magnetic media for storing data, and these media are generally quite reliable. However, since they are not as reliable as paper, particular pains have to be taken to make sure usable copies of the data are available when needed. For example, data on magnetic tape will deteriorate with the passage of time. Also, mechanical failure of a disk drive can cause data to be destroyed. Although sophisticated techniques exist for detecting errors in data recorded on magnetic media, some errors remain undetected. These problems are

reasonably well understood, and the techniques for neutralizing them are straightforward and relatively inexpensive if operating management is willing to pay sufficient attention to them and the system design incorporates them.

Similarly, the use of telecommunications in systems for delivering financial services introduces threats to system integrity. Quite simply, if a path between a user and a service provider is not available and verifiable, service cannot be delivered. However, several organizations may be involved in operating the telecommunication facilities that are used, and the problem arises of identifying the ones that are responsible for detecting and correcting any errors that may occur. The divestiture of the Bell System complicates this problem somewhat, but, again, resolution is not beyond the means of competent technical management,

To a very significant degree, a financial service industry operates on the trust and confidence of its customers. Thus, the systems used to deliver financial services must be reliable and verifiable; if not, the basic viability of the industry could come into question. In the future, virtually all providers of financial services will rely heavily on information processing and communication technologies, and it will be virtually impossible for them to revert to manual systems, even for short periods. The application of advanced technologies in systems for delivering financial services introduces new vulnerabilities to system integrity. If these are not taken into account by the designers and operators of these systems, the basic trust that customers place in the financial service industry could be threatened.

Since the class of problems discussed here are purely operational and can be resolved partly with technical solutions and partly with operational procedures and management controls, the key question is whether operating management will devote the resources required for the solution of these problems and whether those who regulate financial institutions will include in their reviews of operations those factors that affect the integrity of sys-

tems for delivering financial services dependent on advanced technologies.

Specific Consumer Concerns

Transition From Paper-Based to Technology-Based Systems

Competitive pressures within the financial service industry have fostered the use of technology, augmenting and replacing paper-based systems. On the consumer side of the business, however, this force must be reconciled with the demands of the marketplace, which may be in favor of paper-based systems. As a result, the implementation of technology has not always been as easy in this market as in others. However, as technology-based services and products are introduced and accepted in the marketplace, certain issues arise that are specifically related to the transition from one system to another, and to the reliability of systems.

Although technological systems may have a lower error rate than those using manual processing, those errors may be more difficult to detect and resolve. In contrast, a human error can often be resolved immediately. A significant problem regarding some advanced systems for delivering financial services is that there is no guarantee that a paper record of a transaction is ever created. While Regulation E requires that a customer be issued a receipt at an ATM, remote financial services accessed through a terminal located on customer premises are not covered. Thus, an individual can initiate a transaction without any tangible proof of the fact. Also, while a stop-payment order can be put on a check that is believed to be lost in the mail, it is not clear that an analogous step is possible in cases where a payee denies having received an electronic payment. Guidelines are written that enable a consumer to stop a pay order via the automated clearing house (ACH).

Regulations Relating to Consumer Finance

The consumer facing choices between similar financial instruments is probably unaware

of their differing regulatory requirements, or of his protection under the law. It is now possible for an individual who possesses what appears to be a traditional bank credit card to be protected from misuse of the card under a variety of legislation or not at all, depending on the type of transaction.

If a bank issues an individual a debit card that is associated with an account with a line of credit and is also an ATM debit card, the individual can perform a number of different types of transactions with the same card. If his line of credit is accessed fraudulently, the owner has recourse under consumer credit legislation and under Regulation E if the fraud involves EFT. When ATMs or electronic POS terminals are used, his liability is limited under EFTA. If, however, the fraudulent use of the card directly debits his bank account in a paper-based transaction, the consumer has no recourse under current legislation. This is an example where the same card represents three different instruments, each of which, in the case of fraud, would require different actions by the consumer.

The consumer is likely to be aware of the difference between accessing a line of credit and directly debiting his bank account with the card, but it is doubtful whether he would recognize a distinction between a debit that is processed electronically and one that is processed in the paper system. It is also reasonable to assume that the consumer perceives no differences between the transactions in a regulatory sense. Of particular importance, regardless of consumer perception, is the fact that debit card transactions in the paper-based system offer no protection to the consumer.

Privacy

Much controversy surrounds the issue of EFT and privacy —i.e., whether the systems that enable EFT make the individual more vulnerable to violations of privacy. The difficulty of such a discussion is that since privacy has a different meaning to every individual, violation of privacy is not easily defined. In the final report of the National Commission

on Electronic Fund Transfers, privacy was defined as “the individual’s expectation of control over what information about himself is communicated to or used by others.” Further, “the object of the consumer’s concern regarding privacy under EFT is the potential use of his financial transaction information to develop a personal profile.”² This use could be as seemingly harmless as an individual receiving product solicitations, based on his income and profession, from the financial institution where he does business and could range to the capability of the system to provide sensitive information about behavioral patterns of the individual.

Consumers, for the most part, do not appear to perceive privacy as a major concern in their choice of EFT systems; other, more market-oriented, questions seem to determine their use of these systems. A Bank Marketing Association (BMA) survey questionnaire showed a low level of concern about privacy with respect to electronic banking systems. There is additional evidence that transactions performed by ATMs are considered more private than are transactions using a human teller.¹

The paradox is that other studies show the public to be very concerned with privacy, in particular, the use by government of personal information.⁴ However, correlations have yet to be made between this use and individual uses of financial systems. The BMA survey does not question overall the individual’s feelings about financial privacy; it only questions the consumer on how secure he perceives specific financial services technologies to be and indicates that users of the technology seem to be less concerned than nonusers with privacy.

However, the issue extends further, to the capability of these systems to track financial activity, which was impossible on a large scale under a paper-based system. Individual be-

²National Commission on Electronic Funds Transfer, final report, October 1977, p. 19.

³Bank Marketing Association, *Payment Attitudes Change Evaluation*. (Chicago, 111.: BMA, 1982), p. 2.18.

⁴Louis Harris & Associates, Inc., and Alan F. Westin, “The Dimensions of Privacy,” 1979.

havioral profiles can be compiled in the traditional system using account records, but only with great effort and expense. The same tasks become fairly easy using technology. The competitive atmosphere in the financial service industry today encourages the accumulation of personal information to help minimize the cost of bad accounts and to segment a market of potential customers to approach with new products. The accumulation of this information for marketing purposes allows a ready data base for other purposes. Not all companies have and enforce a strict privacy policy, nor do they guarantee that the information is inaccessible through other means, legal or otherwise.

Privacy is not entirely a domestic issue. Countries outside the United States, notably in Europe, express considerable concern for protecting the privacy of individuals and, in some instance, businesses. Some have limited or prohibited the movement of data relating to their citizens to nations that do not meet their standards for privacy protection. Hence, pressure for privacy legislation may materialize from sources outside the United States, regardless of the level of concern of American citizens with the issue.

Conclusion 6: Integration of Capital Markets

Advanced financial information systems have forced the creation of a highly integrated, nationwide capital market and increased the velocity of money.

A highly integrated, nationwide capital market is being created, driven by the demands of users and facilitated by the application of information and communication technologies. Financial institutions began moving capital on a national scale when it was recognized that capital supply and capital demand within regions do not necessarily meet. These institutions have produced a national market through which needed and available funds within and between regions of the country are balanced. Local financial institutions are able to serve as intermediaries between their customers and national markets because of their access to the financial systems and because of their expertise. The ability of an organization or individual to participate in a capital market is restricted by the quality and quantity of information available on the market, and financial service providers have traditionally had superior access to that information.

Traditionally, secondary markets for both debt and equity securities facilitate the process of intermediation between regions. Underwriters buy securities from the primary issuers and make them available on local, regional, and national markets. Modern information processing and telecommunication technologies have provided increased exposure to securities and therefore have increased opportunities for issuers to increase net proceeds from the paper issued.

Congress mandated the development of a national market system for securities in 1975. National markets are advantageous for capital seekers and investors. The truer and more equitable pricing of funds that results from exposure to larger markets is demanded by market participants. This impact is demonstrated by the success of the National Association of Securities Dealers Automatic Quotation System (NASDAQ), which provides national market exposure to what in the past were over-the-counter stocks. Trading volume on NASDAQ has reached the levels of the New York Stock Exchange as investors are at-

tracted to issues to which they suddenly have access.

The Effect of a National Capital Market on Financial Services

A national capital market results in competition between diverse local and regional requirements for capital. The fundamental problem associated with the national market is whether there is equal access to all potential players. While information technology facilitates the communication of information used as the basis of financial decisionmaking, and therefore has made it easier and cheaper to participate in the national market, in some cases the advantages of a regional market may be lost. For example, regional markets may be more appropriate for the development of capital for new or growing firms that may not be able to compete in a national environment yet make a unique and valuable contribution to the economy of the region. Cost and income characteristics for businesses tend to differ between regions, and it may be beneficial for a firm to have its potential level of return evaluated regionally rather than nationally. While the actual cost of money may be equal in a national market, its cost relative to return may differ between regions.

The exposure of securities and loans to national market circumstances has led to an equilibration of securities prices and interest rates. This trend initially developed on an institutional level and has now encompassed consumer markets. Consumers and *small* business customers were at one time dependent on local financial institutions because they did not have the knowledge required to operate in a financial market beyond their area. The availability of information on a national level results in more equitable choice and quality in services offered.

The nationalization of capital formation may be a leading cause in the shift in placement of an increasing portion of consumer funds into investment instruments, such as money market mutual funds. This movement is an indication of the importance of information flows in

financial decisions. Technology that allows for a rapid transfer of information diminishes the importance of location of both service providers and customers. Return potential has enabled the funds to draw a market share from a broad-based population.

Investment funds may draw capital away from depository institutions and therefore the mortgage market. The individual development of equity represented by home ownership is an important cultural and economic value in U.S. society. Historically, the home mortgage was placed by a depository institution in the same community as the financed property; however, information technology has facilitated the nationalization of mortgage capital markets and changed the ways in which this capital is developed. The movement away from local mortgages may be harmful for consumers in some areas and may remove some incentives for forming ties with local financial institutions.

The development of secondary markets for both long- and short-term debt instruments has been a great benefit for smaller financial institutions. Financial institutions, particularly banks, are able to redistribute and balance capital by buying and selling debt contracts among themselves. Information technology facilitates this process by making it easier for financial institutions to identify potential trading partners and to analyze market opportunities.

While access to the national capital market through the *use* of information technology may greatly benefit sophisticated investors, some worry that less sophisticated investors, who need help to interact in a national market, may realize lower returns. The national capital market has caused a proliferation of investment choices that entail a higher level of analysis of personal investment goals and opportunities.

At the same time that a national capital market has been developing, the velocity of money—a measure of the number of times per period an average dollar is spent to purchase newly produced goods and services—has been

increasing. While the incredible growth in the trading of securities and in asset transactions, as seen in bank deposits, may be driven by market forces, it would be physically impossible to complete the actions required for these activities without communications and computer technologies. While information technology is not directly the cause of an increase in the velocity of money, without its application the velocity could not have increased to the level demanded by the market. This type of constraint could have a severe impact on the economy.

It is now generally accepted that there is no technological constraint to the trading of assets at whatever speed is demanded by the market. Almarin Phillips notes that bank demand deposits in New York City were turned over 1,200 times a year in 1981 as compared to an average of 150 times a year in 1970. He attributes this acceleration to the appearance of new markets, the availability of better information, falling transaction costs, increased liquidity of many assets, and the general rise in interest rates. These factors have put a premium on the efficient management of liquid assets.⁵ It would be prohibitively expensive to complete transactions at the demanded speed without the level of technology applied by the banking and securities industries in the last several years.

As the banking industry moves toward multiple settlements during a business day, failure to adopt the needed technology could result in a massive movement of funds out of the financial service industry by corporate cash managers. An indication of this potential was seen in the movement to trade securities off organized exchanges in the early 1970's, when it appeared that the exchanges could not operate at the level demanded. Trading was only returned to the exchanges as information technology increased their capacity and speed.

⁵Almarin Phillips, "Technology and the Nature of Financial Services," *Strategic Planning for Economic and Technological Change in the Financial Services Industry*, Proceedings of the Eighth Annual Conference, Federal Home Loan Bank of San Francisco, Dec. 9-10, 1982, San Francisco, Calif., pp. 5-6.

The increase in trading volume for securities is another indication of the general quickening of the American economy. Share days of 100 million are not uncommon on the New York Stock Exchange, on which a daily average of less than 17 million shares were traded in 1972. And high volume no longer requires the curtailing of trading hours. Long-range planning by the New York Stock Exchange anticipates average daily trading of between 200 million and 250 million shares.⁶ Given the requirement for quick settlement, it would have been physically and fiscally impossible for trading to approach this level without automation.

Information technology has given both domestic and multinational firms far greater capability to identify available assets and to direct them to those investments that offer maximum return for whatever period those assets are available. This ability relates to the tremendous growth of money market mutual funds and accounts that are based on short-term investment instruments.

Future Impacts of Technology on Capital Markets

In an integrated world economy, a high degree of capital mobility is required to offset movements in other items of balance of payments.⁷ An international capital market has developed, facilitated by the application of information technology. This market is having a major impact on the world by intertwining the economies of culturally and politically diverse nations. Also, worldwide financial centers have emerged in countries such as Hong Kong and Bahrain. Unlike a domestic market, however, there is no overriding international system through which a global economy could be governed. Whereas the United States of America share a common Federal Government and political and cultural rooting, this type of relationship does not exist between nations.

⁶NYSE 1983 Fact Book, p. 4.

⁷R. M. Pecchioli, *The Internationalisation of Banking: The Policy Issues* (Paris: Organization for Economic Cooperation and Development, 1983), p. 115.

The differences between telecommunication industries and regulations in various countries must be recognized as a barrier to the development of global capital markets. Information technology creates new vulnerabilities in international markets.

Information technology has made it possible for financial service institutions in different nations to direct excess capital much in the same way it is directed between regions of the United States. In addition to more sophisticated asset and liability management techniques, improved communication facilities had vast consequences for the rapid emergence of

the eurocurrency market for redeployment of international capital.⁸

Communication technologies have also had a particularly strong impact on international wholesale or interbank activities. Interbank activities provide a large portion of the funds for international investment. The use of technology has allowed small banks for the first time to become involved in international banking.

⁸ *Ibid.*, p. 20.

Conclusion 7: Entrants Into the Financial Service Industry

The major new entrants into the financial service industry are, and will increasingly tend to be, organizations that already have extensive distribution and/or communications systems.

A financial service organization that has an established technology infrastructure usually has a competitive advantage in three areas: 1) facilitating the intermediary functions of the financial service industry; 2) providing convenience of location to its customers, including the increased movement to remote banking and other financial services; and 3) in general, improving productivity.

The experience of present leaders in the financial service industry —e.g., Citicorp, Sears, ADP, and Merrill Lynch—indicates that strong distribution and communication systems are major factors in their ability to capture and serve markets. It is expected that the control of or access to distribution and communication systems will continue to be an important indication of the potential success of current industry players and, therefore, an indication of who will be the new entrants into the financial service industry. The identification of potential entrants is important because they help

determine the competitive character of the industry.

The Role of Information Technology in Competitiveness

The flow of information is essential to the orderly operation of financial service markets because it is essential to the making and directing of decisions. Information may be a representation of or collateral to the transfer of value. At the same time, cost and accessibility considerations have led to a change in preference for electronic systems from the once-practical paper-based systems for many types of information. The transfer of financial service records is changing from the physical transportation of documents to the electronic exchange of information. The communication systems developed to meet this demand are far more technology-dependent and capital-intensive than their predecessors.

The application of information technology frequently decreases the costs of delivering financial services. The corporation that can automate delivery systems has a competitive

advantage because it faces lower total costs. The importance of technology in communication systems is found in time, as well as dollar, considerations.

Availability of Services to Small Financial Service Providers

Lack of access to sophisticated communication and distribution systems could potentially be a significant barrier to small service providers both for entering and competing in financial service markets. A tier of wholesalers of data processing and communications services has developed to supply services to end-users or to small financial service providers that cannot afford to invest in large-scale communications or computer systems.

Entrance by Holders of Communication and Distribution Systems

Existing information technology infrastructures have provided market opportunities in the financial service industries for several corporations. For example, a data processing firm, ADP, is an organization whose entrance into the financial service industry grew from holding a sophisticated computer and communication system. J. C. Penney has applied its communication network to the processing of oil company credit card transactions. Penney's established communication system gave it the opportunity to expand into new markets.

Given the great value of sophisticated communication systems to operating financial service systems, new entrants may be found in established communication firms such as AT&T and MCI, which may find it cost effective to enter the financial service industry as wholesalers of services or, because of their established systems of customer service, as direct service providers.

A successful distribution system may be judged not only by the number of physical locations in which an outlet is placed, but also by the extent to which it provides cohesive coverage of markets. Distribution systems share many of the characteristics of commu-

nication systems and are usually dependent on information technology for operation.

Established distribution systems may ease entry barriers to new markets. When Sears entered the financial service market, it had the benefit of an established system of retail stores through which it had community presence. The availability of these locations for the offering of financial services eliminated much of the startup cost involved in selecting appropriate locations for retail businesses, since information on customer traffic and other site characteristics was available. The opportunity cost for Sears of extending its line of commerce to financial services may be assumed to be lower than otherwise might be expected because much of the cost for distribution channels was already paid.

The distribution system of a player in the financial service industry involves not only its physical presence but also its ability to disseminate information. Sears has the most extensive private card base in the Nation, equal in importance to its retail outlets. Because Sears had this communication system in place, it could develop a direct marketing system.

Future entrants into the financial service industry may include corporations that enjoy a strong distribution system such as gasoline retailers. These corporations have a presence through gas stations in urban and rural areas throughout the Nation, a strong fiscal personality, significant card bases, and sophisticated POS systems.

The Effect of New Entrants on Services Provided

The new entrants with strong communication and distribution systems have increased the number of options available to financial service consumers by making a wider range of product offerings and delivery mechanisms available. Communication and computer technology has made it possible to develop far more diverse and complex investment packages that serve a greater range of investors. In addition, the refinement and increased

speed of settlement found through the application of information technology also improves the quality of service received.

It is possible that, in the long run, the need for communication and distribution systems may decrease consumer options if the market becomes dominated by national firms with little local presence. However, it does not appear likely that the market would tolerate this type of development. Small firms can compete as long as they are able to access delivery systems built and operated by others.

The possibility of cross-entry into the financial service industry by communication firms and others may protect consumers from the effects of monopolization. No matter what happens to the concentration levels in the financial service industry, the availability of additional and diverse organizations to provide financial services if market circumstances are favorable should lead to competitive prices.

The Effect of Telecommunication Regulations on Financial Services

Most segments of the financial service industry are subject to Federal or State regulation. With the application of communication technologies, players throughout the financial service industry may find themselves subject to regulation both of their products and services and of the systems they use,

While it may be expected to be a transitional problem, the applicability of two regulatory structures to the financial service industry may hinder its operation by increasing administrative costs. In the extreme, the economic viability of existing systems could be destroyed. Product development and marketing activities could be adversely affected by regulatory uncertainty about communication facilities. Regulation of communication services may limit the ability of financial service providers to realize the potential benefits of new technologies in internal systems if restraints on their usage are imposed. As a result, new systems could be stymied.

Antitrust Implications

Vertical integration may result in greater market concentration by foreclosing the competitive opportunities of those selling or buying in competition with integrated market participants.⁹ Given that distribution and communication systems of an organization may be indicative of possible future entrance by an organization, these systems should also be considered in cases of proposed mergers. Antitrust enforcers should be aware of the possibility that if dominant communication carriers move into the payment system it is possible that their market position in communications may place banks and other financial intermediaries at a competitive disadvantage.¹⁰

Antitrust enforcers should also keep the increasing competitive overlap in mind when analyzing mergers. The Merger Guidelines issued by the Department of Justice in 1982 identify both established players and firms whose production and distribution facilities could reasonably be adapted for entrance into a market as market participants.¹¹ The market impact of proposed mergers and acquisitions has to be evaluated, among other factors, by the likelihood of one of the players independently entering the market of the other as a competitor. Therefore, distribution and communication organizations outside of the financial service industry that propose a merger with a current player should be evaluated in terms of their adaptability to financial applications.

⁹Donald I. Baker and William Blumenthal, "The 1982 Guidelines and Preexisting Law," *California Law Review* 71, March 1983, pp. 311-344.

¹⁰Donald I. Baker and Beverly G. Baker, "Antitrust and Communications Deregulation," 28 *Antitrust Bulletin* 1, 1983.

¹¹Baker and Blumenthal, *op. cit.*, p. 337. Baker and Blumenthal note that the U.S. Department of Justice, Merger Guidelines §1, 47 Fed. Reg. 28,493, 28494 (1982) list the following classes of firms as market participants: 1) firms that currently produce and sell the relevant product, 2) firms whose existing production and distribution facilities could be shifted to enable the firm to produce and sell the relevant product within 6 months of a 5 percent price increase. 3) firms that recycle or recondition products that represent good substitutes for the relevant product, and 4) vertically integrated firms that produce the relevant product for captive consumption.

Conclusion 8: Competition in the Markets for Financial Services

A major uncertainty in the changing structure of the financial service industry is what degree of consolidation and concentration of services will eventually occur. A second major uncertainty is what level and scope of competition in financial service markets would be appropriate and desirable for a healthy future economy.

The compartmentalized structure of the financial service industry established over the past 50 years is in the process of vanishing, and the future structure of the industry remains as yet undefined. In the past, geographic limitations were placed on the areas a bank could serve so that none could position itself to dominate the banking industry. Because banks were limited only to the banking and related business, banks were also effectively kept from using their unique position in the economy to dominate other industries. However, banks were given an exclusive franchise for the taking of deposits and access to the payments system. Only commercial banks were permitted to offer a demand deposit account, and only they had access to the Federal Reserve and the check-clearing mechanism.

Regulations were promulgated for specific classes of institutions; so long as there was no effective way for new entrants to encroach on the franchises that had been granted in legislation, the structure remained intact and was generally able to achieve the goals that had been established for it. However, economic conditions, in combination with the latent capabilities of advanced information processing and communication technologies, encouraged the successful entry of new firms into the financial service industry from such diverse areas as retailing, communication, and information processing.

Significant numbers of those concerned with the long-term effects of the changes now taking place in the financial service industry have

expressed concern that one of the outcomes will be consolidation. The number of firms in the industry would be reduced to a point where a small number could dominate the market. Such concentration would directly contravene one of the central themes embodied in established policy. Some also express concern that users of financial services provided by nondepositor institutions may be exposed to unwarranted risk because the firms providing the services may be prone to accepting a higher degree of risk than depository institutions are permitted to take.

Even though firms not traditionally providers of financial services have entered the industry and operate outside the constraints imposed on traditional suppliers, they apparently have not weakened it. New entrants have generally been successful in broadening competition in the face of the existing legal/regulatory structure. In recent years, Congress has repeatedly been called on to remove constraints that have limited the ability of the regulated firms in the financial service industry to compete with the new entrants; it has not been asked to act to protect the ground taken over from the traditional service providers.

A key parameter for success in the financial service industry is access to systems based on advanced information processing and telecommunication technologies. Large service providers have the resources to develop and deploy these systems on their own. However, the existing infrastructure of wholesale service providers has made it possible for all firms, regardless of size, to have the requisite access to the advanced technologies. New entrants, taking advantage of the advanced systems, have repeatedly demonstrated their ability to compete successfully with larger firms in the marketplace. As long as this alternative exists, there are few barriers to entering the financial service industry.

Another concern expressed by some is that a financial service industry dominated by a few national organizations would no longer be responsive to local needs of the communities in which they operate. On the one hand, ease of entry will continue to minimize the chance that an area would not be served by institutions responsive to its needs. On the other hand, continuing to regulate the interstate activities of the banks will not guarantee that capital will be available to meet the needs of the areas that generate it. As the pervasiveness of technology-based systems for managing financial resources increases, intermediation by banks will become a less significant portion of bank activities because deposits from which loan portfolios are generated will continue to shrink. There is some indication that banks will become primarily service providers through which funds flow. Therefore, policies that are intended to assure the availability of capital for socially worthwhile projects are more likely to be successful if they focus on nonbank institutions.

Historically, there is some evidence to suggest that large financial institutions are not necessarily successful in their attempts to enter and dominate markets held by smaller firms. In areas where they were able to enter, the larger firms were at least as responsive to local needs as were the local banks that had previously provided service. Fears that the New York City banks would be able to drive the smaller upstate banks from the market were expressed when statewide branching was first permitted.

However, according to a statement by Frederick Hammer, Executive Vice President, Chase Manhattan Bank of New York, "Virtually all the New York City banks that went upstate ended up closing most of those branches. The only branches from those efforts that are profitable are those done by acquisition. In the towns where our banks were able to branch, we were able to provide new services. Studies done by the FDIC indicated that the loan ratios went up in those towns. The banks were doing a better job of servic-

ing their communities."¹² On the other hand, this statement says nothing about the propensity or the ability of an organization to enter a market through the process of acquisition, one which Hammer indicates is likely to be successful. Nor does it say anything about their propensity to continue to serve local needs if a dominant position in a market is established.

Evidence indicates that the propensity of customers to switch financial institutions is relatively low and that there must be some significant event to motivate such a change. On the other hand, some believe that packages of services could provide the necessary motivation for customers to change financial service providers and that once new, complex relationships have been established, the inclination to move in the future will be lower than in the past. Securities firms assume that they will be able to establish a high degree of customer loyalty because they are able to offer service regardless of whether the customer is home, on a short trip, or permanently relocating to a new area. * Thus, the firms that can establish a national presence and offer a comprehensive package of interrelated services may be able to generate a degree of customer loyalty that could enable them to dominate the financial service industry.

The States are not waiting for the Federal Government to modify its position with regard to the policies that help shape the structure of the financial service industry. Laws that would permit regional banking have been passed in New England. Some States, South Dakota and Delaware among them, have enacted legislation designed to attract financial service organizations. Thus, even though prohibitions of interstate banking based on Federal law may continue in force, regional bank-

¹²Frederick Hammer, Executive Vice President, Chase Manhattan Bank of New York, in testimony in oversight hearings before the Committee on Banking, Housing and Urban Affairs, U.S. Senate, May 3, 1983.

*The strategy is also intended to change the loyalty of the customer from the account representative to the firm, a problem that has been facing securities broker/dealers for some time.

ing in significant areas of the country could emerge. Also, organizations that provide financial services in nationwide markets operating from States that have passed permissive legislation may emerge. Federal law permits interstate and cross-industry mergers when it can be demonstrated that they will serve the public interest.

No clear picture of the future structure of the financial service industry exists. Some foresee considerable consolidation, with many fewer firms serving the public than at present. Some believe that the industry will consist of a small number of large firms serving national markets and a large number of small firms specializing in specific market niches. On the other hand, others contend that the financial service industry is already heavily concentrated in many respects and that it will not change significantly in the future. Given the contravening forces operating, there is no basis for adopting one of these positions or any others that could be suggested.

However, it is clear that future financial services will be provided by a variety of firms, not just banks and the other traditional participants in the market. New classes of firms have already established themselves in the financial service industry, and there is no reason that the trend should not continue. Thus, policies need to be formulated to account for the influence of the technologies and the opportunities they create for the entry of firms that have not previously been providers of financial services.

A key element in the present structure of the financial service industry is that the customer has the option of investing funds in an account insured by the Federal Government. This type of insurance was one of the elements in the 1930's program to restore confidence in the financial service industry. Because of the existence of the insurance, depositors with balances below the limit of the insurance are fully protected and have not suffered losses as a result of any of the failures that have occurred in recent years. On the other hand, some argue that the availability of insurance and the read-

iness of the regulators to step in to protect a failing institution have resulted in a false sense of security that has led some institutions to take unwarranted risks in participating in deals put together by others. The secondary effects from the failure and closing of the Penn Square Bank illustrate this point. They also argue that these policies protect the stockholders as much as the depositors and, as a result, the institution will undertake projects for its own account that represent an undue degree of risk.

However, the combination of economic forces and technological applications has resulted in the movement of deposits from insured accounts in financial institutions. Although the introduction of insured money market accounts by depository institutions at the beginning of 1983 was accompanied by some increase in deposits, over the long run there is a distinct possibility that the deposits held by financial institutions will continue to shrink relative to all financial assets. Investors in functional equivalents of depository accounts that are not insured would then be exposed to loss of principal in the event of institutional failure, with the result that the sensitivity of the financial services industry to disturbances in the economy could increase significantly.

Antitrust actions in the computer and telecommunication industries have demonstrated that it is not always possible to define clearly the elements of a market in order to analyze the competitiveness of the firms participating in it. Given the changes in the financial service industry, a situation analogous to that found with the computer and telecommunication industries is developing. As new entrants provide financial services, the lines that determine market boundaries become much less clear than they were in the past.

New entrants often compete only in some parts of the financial service market. For example, a supermarket that operates a network of ATMs is in direct competition with depository institutions that offer comparable services. On the other hand, the supermarket

would not be a factor in the markets for commercial loans or trust services.

Even within the community of depository institutions, care must be taken in defining markets. The small, local bank is not a factor in the market for cash management services offered to the largest corporations in the country. Conversely, a branch operated by a major money center bank may be an insignificant factor in a market dominated by a small but very successful bank.

The changing structure of the financial service industry will exacerbate this problem in the future. Thus, great care must be taken in suggesting that one institution will be able to dominate the others in a market. Unless the statement is made in full recognition of the conditions existing in a specific area for a specific package of services, such generalizations are likely to have little validity.

Conversely, one must recognize that the ability to offer a package of complementary services may place a firm at a significant advantage relative to others with product lines that are less broad. Even though the horizontally integrated firm may not dominate any segment of the market in the context of its competition for specific products, when considered in its totality over time, the integrated firm could dominate a market, possibly overpowering market competition.

Events to date have not endangered the basic soundness and safety of the financial service industry. However, one cannot assume that this stability will remain, and constant monitoring of the industry would seem in order. On the other hand, policies developed in anticipation of events not having a high probability of occurrence could foreclose benefits or unintentionally trigger undesirable impacts.