



**The Jerome Levy Economics
Institute of Bard College**

Public Policy Brief

**Financing
Prosperity
in the Next
Century**

The Changing World of Banking:
Setting the Regulatory Agenda

*James R. Barth and
R. Dan Brumbaugh, Jr.*

No.8/1993

Contents

Preface	7
<i>Dimitri B. Papadimitriou</i>	
 The Changing World of Banking: Setting the Regulatory Agenda	9
<i>James R. Barth and R. Dan Brumbaugh, Jr.</i>	
 About the Authors	53

Preface

The views on financial reform along with the policy proposals that are outlined in the paper by James R. Barth and R. Dan Brumbaugh, Jr. that follows are presented as part of the Institute's continuing research on "Reconstituting the Financial Structure." They are in response to the actions—albeit limited, up to now—taken by Washington, to put forth a meaningful legislative agenda to address the much needed reform and restructuring of deposit insurance, regulatory and supervisory authority of the Federal Reserve, the Comptroller of the Currency and the F.D.I.C., and the organization and capitalization of financial services firms. The authors highlight many of the innovative and dramatic changes that have taken place in the financial markets and in the essential functions of financial services firms that have led to the enactment of several "narrow" and "reactive" pieces of federal legislation.

We have witnessed an era of rapid technological change, particularly the wholesale introduction of information technologies in the financial services industry. Technological advancement has precipitated increased competition, and rendered obs-

lete the longstanding established “habitat” among players in the financial services industry.

The recent findings of the National Commission on Financial Institution Reform, Recovery and Enforcement—for which both Barth and Brumbaugh acted as consultants—reinforce the need for a new round of banking regulation. Regulation that is consistent with the diversity of many financial services firms in the rapidly changing environment of finance would strengthen the financial system and avoid another S&L crisis.

Although the common perception blames greed as the principal cause of the S&L crisis, the Commission determined that only 10% to 15% of total losses were attributable to greed. Rather, the existing structure of deposit insurance, which provided S&L operators with added incentive for excessive risk-taking, and a problematic asset structure (exacerbated by deregulation) precipitated the S&L disaster. The Commission’s recommendations echo many of the findings of our March 1993 conference on “Financing Prosperity in the 21st Century.” In essence, actions such as unifying chartering and regulatory control and forming institutions in which deposits are safe (100% “reserved” or invested in highly liquid and high-rated short-term assets) as organizations separate from those carrying uninsured deposits, i.e., finance companies, would facilitate the creation of a financial services industry that can adapt to market forces, reduce risk, increase industry profitability, and eliminate taxpayer costs.

Barth and Brumbaugh provide keen insight about the depth and scope of the changes affecting the financial services industry. Their recommendations for banking reform are sensitive to the need for a guiding set of principles that ensure the stability and soundness of a good finance economy. We are delighted to be the publishers of their views, and believe that they will have a positive impact in the public discussion of this most crucial economic issue.

Dimitri B. Papadimitriou
Executive Director

September 1993

The Changing World of Banking: Setting the Regulatory Agenda

*James R. Barth and
R. Dan Brumbaugh, Jr.*

I. Introduction

The approach taken in the 1980s, and thus far in the 1990s, to setting the regulatory agenda for banking (a term we will use to include all federally insured depositories) has been relatively narrowly focused on trying to resolve specific problems that have arisen in the deposit-insurance and bank regulatory system. The several changes in federal banking regulation in the 1980s reflect this narrow and reactive approach. These changes were largely made in five separate pieces of federal legislation—the Depository Institutions Deregulation and Monetary Control Act of 1980 (DIDMCA), the Depository Institutions Act of 1982 (Garn-St Germain), the Competitive Equality in Banking Act of 1987 (CEBA), the Financial Institutions Reform, Recovery and Enforcement Act of 1989 (FIRREA), and the Federal Deposit

Insurance Corporation Improvement Act (FDICIA), which was finally enacted in 1991.

Although each of these laws is complex, all have become known for specific contributions to addressing various banking problems that occurred during the past decade.¹ In 1980, DIDMCA began the process of phasing out deposit rate ceilings, allowing negotiable order of withdrawal (NOW) accounts at all depositories, and permitting savings and loans to make consumer loans and to issue credit cards. The Garn-St Germain Act allowed interstate mergers and mergers between banks and savings and loans and granted savings and loans the right to make commercial loans. CEBA limited the growth of nonbank banks and provided for limited recapitalization of the Federal Savings and Loan Insurance Corporation (FSLIC). FIRREA continued the recapitalization process by directly committing federal tax dollars to the savings and loan clean-up, reorganized the savings and loan regulatory and insurance apparatus, and increased the minimum required lending by savings and loans for housing-related finance. Finally, FDICIA provided backup funding for the Bank Insurance Fund (BIF), and mandated that the Federal Deposit Insurance Corporation (FDIC) take prompt corrective action against "critically undercapitalized" depositories. It also provided for risk-based deposit-insurance premiums and operating restrictions for depositories that were not "well capitalized."

Each piece of legislation was essentially an ad hoc reaction to specific problems that were thought to require immediate attention. Deposit rates were deregulated because of concern about disintermediation at banks when market interest rates rose substantially above regulated interest rates. Asset deregulation at savings and loans was an attempt to reduce their reliance on fixed-rate, long-term lending for home mortgages funded by shorter-term, variable-rate deposits. The subsequent increase in required holding of housing-related assets reflected concern over the excessive risk-taking of nontraditional savings and loans. Requirements for prompt seizure of deeply troubled institutions reflected concern over the high costs of closing institutions that had been left open, often for years, while reporting insolvency.

For the most part, the federal legislation that was enacted and the subsequent regulatory changes, as well as similar changes in state legisla-

tion at various times for state-chartered banks, modified the existing deposit-insurance and bank regulatory structure. In the process of modifying the structure, little attempt was made to understand or to care much about whether there were fundamental changes in the overall market for financial services that were affecting or contributing to the problems being addressed by the enacted legislation and changes in regulation. We conclude that after 13 years of upheaval and turmoil among federally insured and regulated depositories, the bank regulatory environment is inconsistent with the evolving financial marketplace.

II. Goal of Bank Regulation: From the Perspective of Society

The most frequently stated goal of bank regulation is to maintain confidence and, hence, stability in the financial system.² The reason this is so desirable is that a stable financial system facilitates the efficient allocation of scarce economic resources—the primary function of the financial system. The system accomplishes this fundamental goal by essentially fulfilling two functions: providing a reliable payments mechanism to facilitate transactions, and providing a reliable credit mechanism to transfer funds between savers and borrowers to facilitate economic growth. Thus, the fundamental goal of bank regulation is to promote the efficient allocation of scarce economic resources by minimizing disruptions in the payments mechanism and in the credit mechanism by which funds are transferred between savers and borrowers.

The importance of a well-functioning payments mechanism can be seen by realizing what would exist without it: two-way barter. Transactions would be so cumbersome and costly that they would inhibit economic activity. To the extent that transactions are swift, reliable, and low cost, they promote economic efficiency. The importance of the efficient transfer of funds from savers to borrowers can be appreciated by remembering the Great Depression when, as a result of widespread withdrawals from banks, both the payments system and the credit process were disrupted, exacerbating the reduction in real economic activity.

The financial system should also operate so as to provide the most reliable and efficient mechanism to transfer funds from savers to borrow-

ers in several specific respects. All firms in all industries should have access to the system. Projects of all sizes should have access to funding. Funding should be available across all geographic areas. Prices should reflect risk and be based upon timely and accurate information, with the exact allocation of resources determined by the interaction of individuals and firms in the marketplace. These are characteristics of a well-functioning financial system.

The goal of stability in the financial system does not mean that regulation should be designed to ensure the solvency of individual financial institutions. To the contrary, regulation should facilitate the prompt resolution of firms whose performance in a competitive market leads to financial distress. Prompt resolution at minimum cost reallocates more resources more efficiently than if resolution is slower and more costly. In the process, of course, stockholders, bondholders, and other creditors suffer fewer losses. In the case of federally insured banks, prompt resolution means that the deposit-insurance agency suffers fewer losses and the taxpayer, who is a contingent creditor if there are insufficient deposit-insurance reserves, faces a lower risk of sharing in those losses. These losses, however, are only part of the total resolution cost, which includes any deadweight losses to society due to incentives that are distorted by a troubled institution's access to mispriced federally insured deposits.

Promotion of competitive financial markets is a desirable goal for both the financial system and bank regulation because the result is in turn more economically efficient financial markets and more economically efficient allocation of scarce resources generally. Thus, a goal of regulation is to promote and to maintain competitive markets and to intervene only to offset market failure and to facilitate the cost-effective exit of deeply troubled or insolvent firms from the marketplace.

In promoting the objectives of bank regulation, the following concerns related to financial market failures must be addressed:

- Public good qualities of information—the problem of “free riders,” who acquire costly information without paying for it, inevitably obstructs the flow of information. With insufficient information available to depositors, inadequate monitoring of financial institutions may precipitate excessive risk-taking

behavior. Consequently, the net effect is the increased likelihood of bank failures and bank failure losses.

- Negative externalities and bank runs—many observers believe that when runs occur against insolvent institutions, the existence of negative externalities (together with the threat posed by imperfect information) provides justification for federal deposit insurance to prevent widespread and destructive runs on banks.

Furthermore, factors entailing barriers to entry and exit, agency problems, moral hazard problems, and adverse selection problems plague financial markets that are susceptible to these intricate and closely related forms of market failure.

Government regulation itself, however, can cause problems. Although deposit insurance was established primarily to protect against widespread runs, it simultaneously eliminates the incentive of insured depositors to monitor financial institutions and fails to impose discipline on risk-taking by the owners whose losses are limited by corporate liability laws to their equity contribution. This gives rise to the moral-hazard problem that is widely associated with deposit insurance. The owners of depositories have a put option on their institutions' assets because of deposit insurance, and therefore have an incentive to increase the value of the option by choosing riskier portfolios and lower capital-to-asset ratios.³ Thus, government intervention to deal with one type of market failure can create another type of market failure.

Finally, a goal of bank regulation is to allocate credit. The government itself makes loans directly, thus providing an intermediation service between taxpayers and selected borrowers. The government also affects depository lending by making loan guarantees available to selected borrowers.⁴ More generally, the government may provide broad subsidies through federally chartered and insured depositories for selected products or services. In general, direct loans, loan guarantees, and broad subsidies reduce the cost of borrowing below what the money and capital markets would provide in order to reduce the cost of selected products. These products, called merit goods, are selected because in some fashion the government decides to reduce their cost and thereby make

them more generally available. The most conspicuous such good is housing finance, for which the government long supported the savings and loan industry, the development of a secondary market in home mortgages, and the provision of tax advantages to both home buyers and lenders.

III. Methods Currently Used to Regulate Banks

We focus on the method or function of regulation, rather than the institutional regulatory framework. The institutional framework is, after all, of secondary importance. In setting the agenda for possible changes in regulation, it is most important to evaluate whether the methods used currently to regulate banks are consistent with the goals of regulation. If analysis suggests that changes in regulations are needed, the institutional framework should evolve to facilitate those changes.

The existence of state-chartered banks significantly complicates the regulatory picture. Historically, much of what state-chartered banks have been able to do has been determined by the states. Federal law effectively granted to the states the power to permit or deny geographic expansion of all banks—national banks and state-chartered banks through branching and bank holding companies through acquisitions.⁵ Tables A-1 and A-2 in the Appendix depict the variety of differences in bank regulation of geographic expansion that have developed among the states. As Table A-1 shows, 42 states allowed statewide branch banking in 1991, while 12 states limited branch banking in their states. As Table A-2 shows, the conditions under which banks may branch across state lines vary greatly, though there has been a movement during the past decade toward permitting branching over wider geographic areas.⁶ Sixteen states, however, currently have laws limiting the share of total deposits that any one bank can control within the state.⁷

In addition, as Table A-3 shows, state-chartered banks have not been subject to all of the restrictions on activities that apply to national banks—for example, Glass-Steagall Act restrictions, National Bank Act restrictions limiting national banks to banking and activities incidental to banking, and the Bank Holding Company Act restrictions confining bank holding companies to activities “closely related to banking.”

Tables A-3 and A-4 show the wide variety of activities that have been allowed state-chartered banks. Under widely differing conditions, state-chartered banks have been allowed to engage in securities underwriting and brokerage; real estate equity participation, development, and brokerage; and insurance underwriting and brokerage. We are unaware of any studies that have found an association between wider powers for state-chartered banks and greater bank failures and failure losses, a relationship that some have argued existed between wider powers and savings and loans in the 1980s.

The effect of state-chartered banks on competition has been uneven. On the one hand, limitations on branching within and across state lines limit "intra-industry" competition. On the other hand, the generally wider array of activities in which state-chartered banks have been able to engage has enhanced "inter-industry" competition. In doing so it created an incentive for banks regulated solely at the federal level to lobby for access to powers similar to those granted to state-chartered banks. This created a form of competition among state and federal regulators that has had the effect of increasing "intra-industry" competition. As Table A-3 shows, the result has been expanded access for national banks and bank holding companies to activities related to securities underwriting and brokerage and the sale of insurance.

Effective December 19, 1992, however, FDICIA limited state-chartered banks to activities that are permissible for national banks unless granted a specific exemption by the FDIC. At the moment, the full effect of these changes is unclear because of "grandfather" clauses and limited exemptions provided by the FDIC to well and adequately capitalized state banks. In effect, FDICIA has transferred more of the authority to determine allowable activities to the federal deposit insurance agency from the state chartering authorities. Based on the historical differences between the activities allowed national and state-chartered banks, this shift in authority signals a substantial reduction in the influence of state-chartered banks on "intra- and inter-industry" competition.⁸

Merit Goods and the Allocation of Credit

Bank regulation is also used to support the provision of merit goods, with the effect of allocating credit. Housing finance is perhaps the single biggest example. The savings and loan commitment to housing finance was given a boost in 1933 with the Home Owners' Loan Act that gave the newly established Federal Home Loan Bank Board (Bank Board) the power to charter and regulate federal savings and loans, and whose charter required a substantial commitment to housing finance. The 1933 Federal Home Loan Bank Act that created the Bank Board also created a 12-district Federal Home Loan Bank System to provide liquidity for savings and loans: total assets of the Bank System have grown from \$75 billion in 1981 to \$158 billion in 1991. In 1991, its equity capital-to-total-asset ratio was 6.8% and the return-on-equity was 10.5%. The shrinkage in the savings and loan industry, however, has impaired the Bank System and forced it to try to replace lost members with commercial banks and credit unions.

The federal government also established and chartered the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac), and the Government National Mortgage Association (Ginnie Mae) to facilitate the development of secondary markets into which home mortgages could be sold. Fannie Mae assets have grown from \$62 billion in 1981 to \$519 billion in 1991, and over the same period, the assets of Freddie Mac have grown from \$26 billion to \$406 billion. In part reflecting their relatively low capital-to-total-asset ratios of 1.0% and 0.6%, respectively, Fannie and Freddie earned returns-on-equity of 27.7% and 23.6% in 1991.⁹

Many similar programs have been established by the federal government. The Student Loan Marketing Association (Sallie Mae) facilitates a secondary market in student loans. The Farm Credit System issues bonds to support agricultural loans, whereas the Small Business Administration (SBA) provides loan guarantees for small businesses.¹⁰

Still other federal regulations focus on financial issues relating to low-income individuals. The Community Reinvestment Act (CRA) of 1977 establishes certain requirements for federally insured depositories regarding lending in low-income communities. FIRREA specifically

required funding for housing be provided by the Bank System for low-income individuals. More recently, there have been proposals to charter new financial institutions called community development banks to be located in low-income communities within larger cities.¹¹

Finally, other types of regulation provide protections against specific risks to individuals. They include consumer protection legislation, including protection against discrimination provided by the Equal Credit Opportunity Act (ECOA) of 1974 and the Home Mortgage Disclosure Act (HMDA) of 1975. Disclosure requirements, in general administered by the Securities and Exchange Commission (SEC), are also designed to protect investors by making more and better information available so that investors will incur no more risk than desired.

IV. Evolution of the Financial Services Market: Implications for Banks and Their Regulation

Whether the effects of bank regulation are consistent with the goals of bank regulation depends substantially on the nature of the market for financial products and services.¹² One structure of bank regulation may be appropriate if the market for financial services is characterized by substantial "intra-industry" competition among banks but little "inter-industry" competition involving nonbank financial firms. The same structure of regulation, however, may be inappropriate if "inter-industry" competition is substantial and shows signs of dynamic growth. In particular, if the regulatory structure prevents adaptation to the non-bank competition, the result could be the long-term degeneration of the banking industry characterized by excess capacity, falling returns on equity capital, larger numbers of failing institutions, and the possibility of excessively costly exit.

Dramatic Shifts in Market Shares: Declining Shares for Banks

There has in fact been a substantial change in the market for financial services in the past several decades that has significantly reduced the importance of depositories as they have traditionally operated. The crux of the change has been a dramatic increase in nonbank competi-

tion that has contributed to a substantial shrinkage of the financial assets held by depository institutions as a percentage of total U.S. financial assets held by all financial service firms. As Table 1 shows (see Appendix for tables), the share of U.S. financial assets held by U.S.-chartered banks has fallen from approximately 51% in 1950 to 20% in 1992. Since 1980, the share of U.S. financial assets held by all U.S.-chartered insured depositories (U.S.-chartered banks, savings and loans, savings banks, and credit unions) has fallen from approximately 50% to 30%. Although the decline in market share has been sharpest for savings and loans, falling more than 9 percentage points since 1984, U.S.-chartered banks have seen their share fall 11 percentage points since 1980.

With the exception of life insurance companies and real estate investment trusts (REITs), all other financial service firms shown in the table have gained market share since 1950 and in the 1980s. Only life insurance companies have experienced a substantial decline in their market share, which fell from approximately 21% in 1950 to 11% in 1980, with small fluctuations around that level since then. In contrast to depositories and life insurance companies, mutual funds and money market mutual funds have increased their collective share of U.S. financial assets from 1% in 1950 to 3% in 1980 to 12% in 1992. The market share for both private pension funds and state and local retirement funds has risen from 4% in 1950 to 17% in 1980 to 24% in 1992. Security brokers' and dealers' share has grown significantly since 1980—from 1% to 3% in 1992. Although finance companies hold a greater share of assets at 6% today, their market share has grown only slightly since 1980.

As Table 1 also shows, total U.S. financial assets held by financial service firms have grown substantially. Total financial assets have more than doubled since 1984, rising to \$13.7 trillion in 1992. The total assets of commercial banks nearly doubled from 1980 to 1988, growing at an average annual rate of 12%. Since then the average growth rate has fallen to 5%. The total assets of savings and loans actually fell from a high of \$1.4 trillion in 1988 to approximately \$806 billion in 1992. The overall growth in U.S. financial assets combined with the declining shares held by federally insured depositories suggests that depositories are holding a shrinking share of a growing market for

financial services. The declining growth rate in bank assets and the absolute decline in savings and loan assets are also consistent with this secular trend. The importance of these changes is not simply that depositories have lost market share but that regulations may have impaired their ability to adapt to a rapidly changing financial marketplace and thereby contributed to their excessively costly exit.¹³ The net effect is a less competitive and more inefficient financial system.

Effects of Technology on Competition and Shifting Market Shares

This pattern of shifting shares reflects an increase in "inter-industry" competition that largely resulted from developments in computer and telecommunications technology. Technology has been increasingly reducing the need for depositories to intermediate between borrowers and lenders by gathering, evaluating, and monitoring information on borrowers that was too costly an activity for lenders themselves to perform. Securitization has turned formerly illiquid assets on bank balance sheets such as mortgages (fixed and variable rate), automobile loans, credit-card receivables, and increasingly commercial real estate loans into securities that can be held by individuals and by many firms such as pension funds, mutual funds, and insurance companies. Overall, the manifestations of this technological revolution and developments in financial theory are new products, new firms, lower costs of producing financial products, and lower prices for products. Not surprisingly, competition has increased too, with the consequent squeezing of profits and more failures.

Banks are put in particular jeopardy in this process. The traditional bank, as it has developed since the 1930s, transformed liquid deposits (or deposits payable on demand at par) into illiquid loans. By taking the risk of holding illiquid loans in portfolio, banks earned an acceptable return on their owner-contributed equity. It was also this risk borne by banks that led to the instability associated with banks as discussed above. By turning illiquid depository assets into more liquid securities, securitization is undermining the traditional depository function involving the linkage of the two sides of the balance sheet. Securitization, moreover, is not the only "villain" from the banks' perspective. The increasingly deep market for individual loan sales and the access of more firms to the commercial paper and bond markets, both

reflecting the effect of technology on lowering the cost of processing and disseminating information, have had similar effects.

There are a number of other fronts on which the banks seem particularly vulnerable to the effects of technological developments. Banks, unlike insurance companies, pension funds, and mutual funds, have a large commitment to "brick and mortar" in the form of branches and to the employees of the branches. As the provision of financial services becomes more electronic, these branches and employees may become a burden. Since 1986 employment at commercial banks has declined by over 100,000 employees. Electronic provision of financial services also has the effect of increasing the size of the relevant product market for financial services. Limits on geographic location and ownership may inhibit banks' adaptation to an increasingly international market. Efficient electronic provision of financial services could come from a firm that simultaneously provided telephone, television, and financial services. The prohibition of ownership of banks by commercial firms would seem to inhibit banks from becoming part of such a service, and banks might suffer competitively as a result. Banks, however, are increasingly attempting to provide more products and services offered by their nonbank competitors, with an emphasis on fee income rather than traditional intermediation income. This may enable them to make better use of their branches and employees.

Changes in Household Holdings of Financial Assets and Liabilities

We have witnessed a dramatic change in the way households, and hence individuals, hold assets. In 1950, 57% of all household financial assets were in corporate equities, U.S. government securities, and life insurance reserves. Today, households hold only 22% of their assets in those categories, a drop of 35 percentage points.

The most dramatic increase in holdings occurred in pension fund reserves, which rose from 5% in 1950 to 14% in 1980 to 28% by 1992. Mutual funds grew from 1% of household assets in 1980 to 6% in 1992. Money market mutual funds grew from 1% of household assets in 1980 to 3% in 1992. The net increase in these three cate-

gories—pension fund reserves, mutual funds, and money market mutual funds—has been 30 percentage points.

The net effect is that households have shifted from direct holdings of stocks and bonds and holdings in depositories and life insurance companies to indirect holdings of stocks and bonds through pension funds and mutual funds. From the perspective of nonbank financial firms and the consumer of financial services, the line of causation creating this change in pattern is relatively clear. First came the technological advances that lowered the cost of gathering, monitoring, and processing information. Then came the changes in the provision of financial products that reflected the technological change, for example, the development of mutual funds that allowed a consumer to hold indirectly a diversified portfolio of financial assets in relatively small denominations. Finally, over time consumers have shifted their holdings of financial assets, fueling the growth in nonbank financial service firms.

By far the biggest losers thus far have been federally insured depositories, primarily savings and loans but also commercial banks, reflecting the inability of depositories to adapt to the competition because of regulatory constraints—many of which they have lobbied for themselves. The inability to adapt due to regulatory constraints has had many manifestations. The unusually large number of depositories exiting in a relatively short period of time, sometimes at great cost, has captured most of the attention. More fundamental problems remain. As Barth and Brumbaugh (1992) show, the commercial bank mean return-on-equity fell 2.4 percentage points in the period 1980–1991 compared to the 1970s. The standard deviation of the return-on-equity for commercial banks rose 2.6 percentage points. Another measure of risk, the ratio of net charge-offs-to-assets, more than tripled from 0.07% in the 1970s to 0.24% in the 1980–1991 period. For savings and loans, the mean return-on-equity became negative in the 1980s and indices of risk soared relative to previous decades. Falling ex post returns for commercial banks and savings and loans combined with rising ex post measures of risk suggest further attrition unless the process is reversed.

V. Recent Developments in the Financial Services Market: Competitive Implications

Recent developments in the financial services market suggest that the process is unlikely to be reversed. In general, the reaction of the banks, savings and loans, and credit unions—with the assistance of federal and state legislation and regulation—has been to change the asset and liability mix within relatively narrow limits. Difficulties surfaced for commercial banks in the early 1980s concerning their loans to lesser developed countries. That banks made so many loans in the first place reflected a more serious long-term problem, the declining demand for bank loans from corporations that were increasingly served by the commercial paper market.¹⁴

Commercial and industrial loans as a percent of total assets fell from 22% in 1981 to 13% in 1992.¹⁵ Over roughly the same period, bank real estate loans to total assets rose from 14% in 1982 to 24% in 1992. Commercial bank holdings of home mortgages as a percentage of real estate mortgage loans held by different lenders was 17% in 1992, for the first time exceeding the holdings of savings and loans, which were 13%. Toward the end of the 1980s, bank holdings of U.S. government securities also rose precipitously, from 12% of total bank assets to 18%. For nearly 20 years beforehand, bank holdings of government securities were relatively stable, having declined slightly from 1970.

One must ask whether the stream of income from these sources is sustainable. Primarily because of action taken by the Federal Reserve to stimulate economic activity following the 1990–1991 recession, short-term interest rates fell dramatically and the spread between short-term and long-term interest rates rose to more than 400 basis points by early 1993. In essence, a large portion of the banks' recent profitability has come from borrowing from the insured depositor at a relatively low interest rate and lending to the government at a much higher rate. As the yield curve flattens, this source of profits will diminish.

Whether banks can earn profits from real estate loans is also uncertain. Carron and Brumbaugh (1991) for savings and loans and Passmore (1992) more generally have investigated whether retail depositories can fund home mortgages profitably. Passmore, like Carron and

Brumbaugh, found that the cost of collecting retail deposits combined with the regulatory capital requirements for depositories make mortgage lending largely unprofitable. Profitability has also been affected by the dramatic growth of the secondary home mortgage market; 40% of home mortgages are now in mortgage pools. Passmore concluded that it was possible for very efficient savings and loans to fund fixed-rate conforming mortgages profitably but that "almost all S&Ls and probably most banks and credit unions do not fit this description." He also concluded that most depository institutions are not efficient enough to make securitized fixed-rate and adjustable-rate mortgages profitably. Commercial real estate mortgages provide a wider interest-rate spread, but this spread is likely to narrow as more commercial real estate loans are securitized.¹⁶ This could affect banks significantly because banks held 45% of all commercial mortgages held by the different real estate lenders in 1992.

Barth, Brumbaugh, and Litan (1992) point out that banks became much less liquid in the 1980s with cash and cash due from other depositories falling from 18% in 1980 to 9% in 1990. This fall in liquidity was offset by an increase in total loans and leases from 55% to 62%. The shift to illiquid assets increased risk as banks sought more revenue. They also point out that the growth of off-balance-sheet items has also been dramatic. The off-balance-sheet items in the banking industry as a whole are approximately four times the volume of balance-sheet items, and they are increasing. Other signs of potential risk-taking showed up on the liability side of the banks' balance sheet where there was an important shift away from noninterest-bearing demand deposits to deposits that paid interest—demand deposits decreased by 9 percentage points in the 1980s, while time and savings deposits more than doubled to approximately 23% and interest-bearing transaction accounts, which did not exist nationwide in 1980, accounted for approximately 20% of liabilities in 1989.

Some banks have adopted strategies by which they earn greater income in fees than interest income on assets in their portfolios. Some of these banks—such as J. P. Morgan, whose ratio of noninterest revenue to total revenue was 63% in 1992—are among the most profitable banks with the most stable earnings during the past decade of turmoil for banks. Bankers Trust and Citicorp had noninterest revenue to total rev-

enue of 67% and 52%, respectively, in 1992. Although our focus is on the adaptation of banks moving away from traditional assets and in some cases toward fee income, a similar type of adaptation is occurring among life insurance companies, which, as noted above, have been the other major financial firms losing market share in recent years. In 1950, life insurance reserves accounted for 83% of liabilities for life insurance companies, but for only 47% in 1980 and 27% in 1992. In 1950, only 9% of life insurance companies' liabilities came from pension fund reserves, rising to 39% in 1980 and 62% in 1992. Thus, life insurance companies have become substantial managers of pension fund reserves, increasingly invested in mutual funds and government securities.

Meanwhile, banks increased the proportion of investment securities in their portfolios from 16.9% in 1989 to 22.0% in 1992. This shift contributed to the substantial increase in bank profits that has occurred in 1992 and thus far in 1993. Net operating income for banks nearly doubled from \$14.8 billion in 1991 to \$28.7 billion in 1992. These profits have allowed the banking industry to make substantial additions to capital. Capital has risen from \$181 billion in 1987 to \$263 billion in 1992, an increase that raised the aggregate capital-to-asset ratio.

Summarizing the Trends

In each area into which depositories have expanded their assets, there is substantial competition, with the likelihood that the future income stream may be limited. In residential real estate, mortgage-backed securities have lowered revenues and many low-cost providers compete with depositories. There is significant evidence that only the most efficient depositories will be able to compete profitably in the market. There is an excess supply of commercial real estate with the expected negative effect on prices and asset quality. There are also a significant number of nondepository commercial real estate lenders. As a result of these phenomena, there has been a significant movement among big banks toward off-balance-sheet items and toward nonbank activities generating fee income, including the significant movement into the managing and selling of mutual funds. There remains substantial competition from securities firms in these areas as well, some of which have formed joint ventures with banks offering mutual fund services.

The desire of banks to shift asset mix, move off balance sheet, and seek fee income will likely intensify because demand for business loans from banks will continue to decline. New products will continue to emerge and threaten the commercial and industrial loan business at banks. Banks will also continue to labor under related regulatory disadvantages. Banks, for example, cannot hold junk bonds, which are essentially more liquid commercial and industrial loans. New and old competitors, with a changing menu of products and services, will continue to develop. The demand for small, nonhomogeneous business loans continues to be relatively strong, which helps explain the relative strength of small banks. As technology improves, however, one can expect this market to become more contested as well.

There have also been substantial competitive changes in the market affecting the liability side of depositories' balance sheets. The growth of money market mutual funds has been a conspicuous case in point: Money market mutual fund balances have risen from 1% of M2 in 1980 to 10% in the third quarter of 1992. Before 1980, money market mutual funds were not even included in M2 because they were so relatively insignificant. Another interesting aspect in the growth of money market mutual funds is that they have been increasingly moving funds from banks' time deposits elsewhere, with time deposits as a percentage of their total assets falling 21 percentage points from 1980 to the third quarter of 1992.

The fact that money market mutual funds are now included in M2 reflects the new reality that the funds are a close substitute for deposits at banks and savings and loans. A still broader measure of money would show the declining importance of depository liabilities compared to other financial service firm liabilities. The expansion of money market mutual funds represents the unbundling of bank balance sheets, as do the securitization of loans, the growing corporate paper market, and the movement to off-balance-sheet activities and fee income. From the perspective of setting the agenda for bank regulatory reform, the unbundling signifies a potential reduction in the inherent instability of banks that in part generated the need for regulation in the first place. The existence of money market mutual funds suggests that the payments system may be less vulnerable to problems in the banking industry than in the past.

This analysis points to a separate issue of importance involving money market mutual funds and other nonbank financial service firms. The existence of moneylike assets available from nonbanks can complicate monetary policy. If the Federal Reserve were to focus on an inappropriate measure of money, then the monetary authorities could mistakenly take inappropriate action.

VI. Reform Alternatives: Resolving Aspects of Bank Regulation Inconsistent with the Goals of Bank Regulation

The existing regulatory structure for banks, as well as any suggested agenda for reform, should be judged by how well it corresponds to the goals of regulation. In this respect it should be clear from the preceding analysis that there are many aspects of the regulation of banks that appear inconsistent with the goals of regulation. Many aspects of the regulation appear to be mutually contradictory. There has always been an inconsistency between the anticompetitive restrictions and the promotion of economic efficiency discussed above.

This tension was not particularly harmful as long as "intra-industry" competition was the major concern and "inter-industry" competition was relatively minimal. Now, "inter-industry" competition is intense and growing. As discussed above, the increasing competition combined with restrictions on competition has produced economically inefficient results. This has included a decline in ex post return-on-equity for banks and an increase in ex post measures of risk, which has resulted in the excessively costly exit of depository institutions. These developments motivate the need for reform. With this background, we offer the following reform alternatives for consideration.

Protect Depositories from Competition

Nondepository financial firms now provide many of the services that banks provide. One reform alternative is to grant monopolylike powers where possible to banks. This could be combined with new regulatory restrictions on nondepository financial service firms by, for example, prohibiting mutual funds from offering check-writing services. At the

moment, the inability of mutual funds to access Fedwire directly provides banks with a competitive advantage in check-writing services. The government could erect additional barriers to discourage or roll back nonbank provision of selected financial services.¹⁷ This approach is similar to the approach taken by many firms and industries. While non-bank financial firms such as securities firms and insurance companies have increasingly provided services historically provided by banks, they have simultaneously lobbied to prevent banks from providing their other services. The goal in general is to protect oneself from competition.

This reform alternative, then, has as its goal the very antithesis of many of the goals of regulation, primarily to enhance competition with the attendant benefits for consumers of financial services and the efficient allocation of scarce economic resources. Perhaps the best reason for calling attention to it here is to reinforce the observation that many of the existing bank regulatory practices are inconsistent with the society-wide goals of bank regulation and the efficient provision of financial services. As a result, if this reform alternative were successfully adopted, the policy would increase inefficient allocation of resources, and if unsuccessful would maintain policies that still encourage misallocation of resources. This reform alternative is merely an extension of the current policy of attempting to erect barriers to entry and exit in the provision of financial services.

Maintain the Deposit-Insurance System with Required Prompt Corrective Actions and Cost-Effective Closure Mechanisms

Another reform alternative is based on recommendations that evolved from analyses of the failure to close insolvent savings and loans in a timely fashion and the resulting adverse effects on the cost of closure. As described in Barth (1991), savings and loans closed in 1988 were open while reporting insolvency for an average of more than four years. Barth, Brumbaugh, and Litan (1992) and Barth and Brumbaugh (1991) show that similar closing patterns developed with commercial banks and credit unions.

Open but insolvent depositories have a great incentive to take excessive risk in an attempt to return to solvency. This is particularly true of stock-type institutions in contrast to mutual institutions. Excessive risk-taking by insolvent institutions can result in significant returns to stockholders and managers with equity interests if such risk-taking is successful, while losses accrue to the deposit-insurance system or taxpayers if it is unsuccessful. This is one of the manifestations of the moral-hazard problem in federally insured depositories.

One reform proposal is to retain the current deposit-insurance system but to require truly prompt corrective actions against troubled institutions in order to reduce the moral-hazard problem. In general, corrective actions and ultimately closure would be triggered by falling capital or net worth. As capital fell relative to assets, supervisory intervention would increase and an institution would be more likely to face limitations on its ability to increase risk. Ultimately, closure would be triggered if capital approached zero. Such an approach was specifically outlined by Benston et al. (1989) based on studies indicating that delay in closure of insolvent savings and loans increased the cost of closure.

In 1991 FDICIA implemented a form of this approach. As described by Brumbaugh and Scott (1992), it differed significantly from what was proposed by Benston et al. Book value measures of capital were used to trigger increased intervention, rather than market values. As a result, it is unclear to what extent intervention and closure are actually what one would call prompt or timely. As institutions near insolvency, existing book-value measures of capital or net worth tend to exceed market-value measures of capital, sometimes substantially. In addition, unlike the Benston et al. proposal, the regulators were granted considerable discretion in the design and implementation of the early intervention and closure mechanism, and consequently given substantial opportunities to engage in forbearance. As Brumbaugh and Scott point out, the law seems designed to provide such opportunities to regulators.

An alternative is to build on FDICIA by basing prompt corrective actions on deterioration in market-value capital and by eliminating regulatory discretion in order to eliminate forbearance. Although this alternative maintains deposit insurance, it does not rule out substantial changes in addition to the closure mechanism. Deposit coverage levels

could be maintained at the current or a reduced coverage level. Other regulatory constraints could be changed. Branching and banking restrictions could be eliminated. Limits on allowable activities could be reduced. Ownership beyond bank holding companies could be authorized for nonbank and nonfinancial companies, as is the case with the ownership of savings and loans.

Past experience suggests that this alternative is difficult to implement effectively. There is significant resistance to reducing regulatory constraints, particularly as long as deposit insurance is still provided. Regulatory constraints should be reduced only for healthy institutions in order to minimize moral-hazard problems, but blocking out unhealthy institutions has proved difficult to accomplish in the past. In addition, examination and supervision become more difficult as institutions become more complex and diverse, as they certainly would if regulatory constraints were relaxed as described. Timing prompt corrective actions, particularly seizure, is difficult. Given the significant debate surrounding the wisdom and the ability to implement market-value accounting,¹⁸ it would face substantial opposition and take time to effect. The elimination of discretion is also difficult, and the tendency is strong to reinstate it if prompt corrective actions prove inadequate and losses mount.

Even if all of these difficulties did not exist or posed little impediment, this alternative is essentially a rear-guard action, attempting to cope with new and sometimes quickly developing competitive threats through slow and piecemeal legislative and regulatory edicts. Some restrictions on assets and liabilities would undoubtedly survive and potentially prevent movement of financial resources to their most efficient use. As new and unexpected competitive developments occurred in the provision and delivery of financial services, further tinkering would be necessary in order to maintain the level of efficiency that had already been achieved. The possibility of significant deterioration and large losses would remain, though perhaps in a lessened state.

From an economics point of view, this alternative fails to address very convincingly one major issue. Given the goals of financial regulation and the purpose of the financial system, is the deposit-insurance system—even if the changes this alternative includes are desirable and

achievable—the kind of system one would design today if one were starting from scratch? Does this alternative essentially represent an attempt to tune an instrument that one would not select if it had not been handed down through several generations? If a different system offers substantial advantages, perhaps one should explore devising a new instrument.

Eliminate Deposit Insurance and Adopt a Form of the Narrow-Bank Proposal

This proposal begins with the elimination of deposit insurance. This does not mean eliminating the protections that deposit insurance was designed to provide: protection for small and unsophisticated depositors, protection of the payments and credit mechanisms, and protection of the taxpayer. Any proposal that entails elimination of deposit insurance must offer an alternative that will ensure those protections, as well as meet the goals of bank regulation.

To prevent runs and to provide individuals with a perfectly liquid asset—one that is payable on demand at par with extremely low user cost—this proposal would create a narrow bank at every depository, along the lines discussed by Litan (1988) and Benston et al. (1989).¹⁹ The assets of the narrow bank would be short-term Treasury securities. Under certain circumstances as discussed by Benston et al., other assets could be included. The liabilities would be demand deposits only. As a result, the return to the depositor would essentially be limited to the return on short-term Treasury securities minus fees for servicing accounts.

Simultaneously the proposal would eliminate all other regulatory constraints on depositories except for those that apply to other financial service firms, such as SEC disclosure requirements, consumer protection requirements, and all the requirements that are implicit in avoiding antitrust violations. Thus, this proposal is designed to promote efficiency because the new “nonnarrow” bank, associated with but separated functionally from the “narrow” bank, becomes a purely private

financial service firm with the ability to adapt to competition as do all other financial service firms.

Even the prospect of unleashing this competition by releasing banks from current regulatory constraints on their activities would no doubt unleash a frenzy of lobbying by every conceivable financial service firm. Their goal would be to protect themselves as much as possible from prospective competition. It is all too easy to imagine, how each threatened competitor would agree with other threatened competitors that the resulting competitive bloodbath would result in financial instability. Each individual firm going out of business would be cited as a sign of overall financial instability.

As discussed above, swift restructuring or exit of insolvent firms in a competitive market enhances efficiency, an essential ingredient in the stable provision of financial services, which is the goal. If large numbers of banks exited the financial services industry as a result of this proposal, imposing losses on stockholders and some debt holders, what does this mean from that economic perspective? Is there an efficiency loss or gain that can be inferred from such an outcome?

The answer is complicated. It involves, most profoundly, a calculation of the opportunity cost of maintaining the current system that provides financial services in a way inconsistent with the efficient allocation of financial services and hence allocation of scarce real resources. To some extent the losses caused by the attrition of firms would represent part of the opportunity cost of the current system of regulation. The losses would represent amounts that would otherwise have been earned and kept if the provision of financial services had been more efficient in the first place. Thus, the losses that would seem to be attributed to the implementation of the reform proposal would in fact represent realized losses that had accrued from past inefficiency.

Opponents of this proposal will also tend to create images of forlorn formerly insured depositors walking the streets, hopelessly seeking a place to deposit their funds safely. Others will have understandable and genuine concern for formerly insured depositors who under this proposal would have to choose between a risk-free, low-return liquidity

account and some level of risk and return associated with a less liquid account. Will this not lead to befuddlement and unnecessary losses for some individuals, perhaps many?

In order for this result to obtain a number of things would have to occur. For some reason, the market for financial services would have to be unable to provide individuals with appropriate information on the nature of risk and return trade-offs. This would probably take some form of widespread, persistent fraudulent information. It would also entail the inability, ultimately, of financial consumers to understand appropriate information when they were provided with it. Extraordinarily large amounts of nondepository financial products entailing risk and return are provided to currently insured depositors without the equivalent of deposit insurance—all insurance products, mutual funds, equities, real estate, pension and retirement funds (even those covered by the Pension Benefit Guarantee Corporation), stamps, coins, baseball cards, antiques, art, and more. To conclude that the absence of deposit insurance will throw massive numbers of people to the financial wolves seems erroneous.

Eliminate Deposit Insurance and Create a Federal Money Market Mutual Fund

As with the previous proposal, this proposal would eliminate deposit insurance. It would also eliminate all regulatory constraints on depositories except for those that apply to other financial service firms. The difference is that, instead of creating just a narrow bank at former depositories, it would also create a federal government money market mutual fund. There should be no reason why banks should not be able to offer a competing money market mutual fund or risk-free account in a narrow bank if they so chose. As with the narrow bank, assets of the government money market mutual fund would be short-term Treasury securities, and liabilities would be demand deposits only. Access to the fund would be through check writing or a debit card issued to anyone who wanted to purchase shares in the fund. The fund would allow for electronic deposit of all government checks such as payroll, social security, and welfare checks, a service that could also be provided through the narrow bank.

All nonnarrow banks would become purely private financial service firms with the ability to adapt to competition as do other financial service firms. The goals of deposit insurance would also be met. The provision of the money market mutual fund through the government is also a function for which the government seems particularly efficient, more so than the narrow bank. Basically, the service would be a large-scale electronic debit and credit mechanism requiring a large-scale computer operation and retail outlets at, for example, post offices. This type of service was offered in the past through postal banks; therefore there is a historical precedent for this type of mechanism.

There are other advantages to this approach relative to a narrow bank alone. The proposal provides a vehicle for providing low-income individuals with certain financial services at low cost, and may represent a more efficient alternative to providing them to low-income individuals through banks, proposed community development banks, or through a narrow bank. At the moment, individuals with low incomes have difficulty cashing checks and establishing checking accounts of their own, in part because there are relatively few convenient financial service outlets near their homes. In addition, theft of government checks is a problem. With access to the government money market mutual fund, these individuals could have checks deposited in their accounts, and could draw down on the account through the use of checks or a debit card. Electronic transfer of funds to pay bills could also be arranged easily. The government money market fund would become an efficient, low-cost provider of universal liquidity in the U.S. In essence, just as the government has provided currency over the years, it would be updating the process by providing the modern-day equivalent of such a payments vehicle.

Finally, it is frequently said that implicit federal deposit insurance exists even for the narrow bank in the sense that if difficulties arose, however remote the possibility, the government would step in to protect depositors. This reform proposal eliminates this prospect because of government provision of a liquidity service in the first place. Individuals would never need to run to currency.

VII. Conclusion

One approach to setting the regulatory agenda for banks is first to examine whether the existing regulatory structure is consistent with the goals of bank regulation. The main role of bank regulation is to maintain confidence and, hence, stability in the financial system because a stable financial system facilitates the efficient allocation of scarce economic resources—the primary function of the financial system. Accordingly, bank regulation is to promote the efficient allocation of scarce economic resources by minimizing disruptions in the payments and credit mechanisms. Disruptions can emanate from a number of intricate market failures primarily involving barriers to entry and exit, public-good problems, externalities, and agency, moral-hazard, and adverse-selection problems.

While regulation aspires to minimize the likelihood of disruptions in the payments and credit mechanisms, another goal is to promote competitive financial markets. Regulation itself can raise significant barriers to entry and exit, and create market failures that inhibit competition and the efficient allocation of scarce economic resources. We have pointed out several ways in which limitations on bank ownership, price and quantity controls, limitations on geographic location, and restriction of activities can limit competition, and hence the efficient allocation of scarce economic resources.

These limitations and restrictions were first adopted in legislation in the 1930s, and have evolved since then with changes in legislation and regulation that were essentially ad hoc adaptations to specific problems that appeared to need immediate attention. This was particularly true of the five pieces of federal legislation since 1980. These changes, however, fundamentally ignored the development that could not have been envisioned in the 1930s but exploded dramatically in the 1980s—the revolution in computer and telecommunications technology, which in turn has spurred dramatic competition in the provision and distribution of financial products and services.

In reviewing the four proposals we have described, we surmise that in setting an agenda for regulatory reform, a reform proposal must pass a two-part test. It must meet the fundamental goal of bank regulation by

protecting the payments and credit mechanisms from disruption while at the same time promoting competition. Meeting both of these tests is the only way to maximize the efficient allocation of scarce economic resources.

End Notes

1. For analyses of the legislation of the 1980s, see Barth (1991), Barth and Brumbaugh (1990), Benston and Kaufman (1993), Brumbaugh (1988, 1993), Brumbaugh and Scott (1992), Brumbaugh and Litan (1991), Carnell (1992), and Kane (1983, 1985, 1986).
2. For additional discussion, see Merton (1992).
3. For a detailed discussion of the moral hazard and agency problems as they apply to depositories, see Barth and Brumbaugh (1992) and the references cited therein.
4. According to the Office of Management and Budget, the face value of all federal credit and insurance programs amounted to \$6.8 trillion in 1992.
5. As of December 1991, state-chartered member banks were 8% of all federally insured banks, state-chartered nonmember banks were 60% of all insured banks, and the remaining 32% of federally insured banks were national banks. For a discussion of these and related issues, see Wells, Jackson, and Murphy (1992).
6. In May 1992, moreover, the Office of Thrift Supervision (OTS) rewrote regulations to preempt state controls over savings and loans' entry into new states. Interstate branching by savings and loans is, therefore, currently decided solely by the OTS.
7. See Cox and Klinkerman (1993).
8. Selected state authorities first authorized adjustable-rate mortgages for savings and loans, with the Congress prohibiting their use nationwide until after the industry suffered enormously from sharply rising interest rates in the late 1970s.
9. The Federal Housing Enterprises Financial Safety and Soundness Act of 1992 set minimum capital requirements for Fannie Mae and Freddie Mac at 2.50% of on-balance sheet assets, plus 0.45% of outstanding mortgage-backed securities and substantially equivalent instruments, including 50% of commitment to purchase mortgages.
10. For a thorough discussion of federal credit programs, see Bosworth, Carron, and Rhyne (1987).
11. See, for example, Minsky, Papadimitriou, Phillips, and Wray (1993).
12. For discussions of the changing nature of the financial services market and the effects on depositories, see Barth (1991), Barth and Bartholomew (1992), Barth and Brumbaugh (1992), Barth, Brumbaugh, and Litan (1992), Brumbaugh (1988, 1993), Congressional Research Service (1992), Gorton and Pennacchi (1992), Kane (1985), and Litan (1987, 1991).
13. From January 1980 through June 1992, more than 4,500 federally insured depositories failed with assets of more than \$630 billion and were resolved at a present-value cost of about \$150 billion to the deposit insurance funds and taxpayers. For a discussion of the budgetary implications and implications for deposit insurance reform, see Congressional Budget Office (1991).
14. Whereas nonfinancial commercial paper outstanding as a proportion of banks' commercial and industrial loans was 10.6% in 1979, it had grown to 21.2% in 1991. For more information on the difficulties facing commercial banks in the

past decade, see Barth, Brumbaugh, and Litan (1992), Gorton and Pennacchi (1992), and Litan (1991).

15. In the Appendix tables for commercial banks and savings and loans, the data are obtained from the Congressional Budget Office and the Flow of Funds Accounts of the Federal Reserve. In some cases, there are discrepancies between the two sources of data for a given activity. The discrepancies do not alter the basis patterns we describe.
16. Through early 1993, the Resolution Trust Corporation itself had securitized \$20 billion of commercial mortgages, with more securitization likely to follow.
17. An example of such a tactic is CEBA, which closed the nonbank/bank loophole, leaving 168 such institutions currently operating because of a "grandfather" clause.
18. See, for example, Beaver, Datar, and Wolfson (1992).
19. For an excellent description of early developments relating to the narrow bank, see Phillips (1992).

References

- Bagehot, Walter, *Lombard Street*, Scribner, Armstrong, New York, 1873. Reprinted by Irwin, Homewood, Ill., 1962.
- Barth, James R., *The Great Savings and Loan Debacle*, The American Enterprise Institute, Washington, D.C., 1991.
- Barth, James R., and Philip F. Bartholomew, eds., *Emerging Challenges for the International Financial Services Industry*, JAI Press, 1992.
- Barth, James R., and R. Dan Brumbaugh, Jr., "The Continuing Bungling of the Savings and Loan Crisis: The Rough Road from FIRREA to the Reform of Deposit Insurance," *Stanford Law and Policy Review*, 2, Spring 1990.
- , eds., *The Reform of Federal Deposit Insurance: Disciplining the Government and Protecting Taxpayers*, HarperBusiness Publishers, New York, 1992.
- , "Depository Institution Failures and Failure Costs: The Role of Moral-Hazard and Agency Problems," Conference on Rebuilding Public Confidence through Financial Reform, Ohio State University, Columbus, Oh., June 29, 1992.
- Barth, James R., R. Dan Brumbaugh, Jr., and Robert E. Litan, *The Future of American Banking*, the Columbia University Seminars Series, M. E. Sharpe, Inc., Armonk, N.Y., 1992.
- Barth, James R., and Robert Keleher, "Financial Crises and the Role of the Lender of Last Resort," *Economic Review*, Federal Reserve Bank of Atlanta, 1984.
- Beaver, William H., Srikant Datar, and Mark A. Wolfson, "The Role of Market Value Accounting in the Regulation of Insured Depository Institutions," *The Reform of Federal Deposit Insurance: Disciplining the Government and Protecting Taxpayers*, edited by James R. Barth and R. Dan Brumbaugh, Jr., HarperBusiness Publishers, New York, 1992.
- Benston, George J., "The Federal 'Safety Net' and the Repeal of the Glass-Steagall's Separation of Commercial and Investment Banking," *Journal of Financial Services Research*, 2, September 1989.
- Benston, George J., R. Dan Brumbaugh, Jr., Jack M. Guttentag, Richard J. Herring, George G. Kaufman, Robert E. Litan, and Kenneth E. Scott, *Blueprint for Restructuring Banking and Financial Institutions: Report of a Task Force*, Brookings Institution, Washington, D.C., 1989.
- Benston, George J., and George G. Kaufman, "The Intellectual History of the Federal Deposit Insurance Corporation Improvement Act of 1991," Working Paper Series, Center for Financial and Policy Studies, Loyola University, Chicago, 1993.
- Bosworth, Barry P., Andrew S. Carron, and Elizabeth H. Rhyne, *The Economics of Federal Credit Programs*, Brookings Institution, Washington, D.C., 1987.
- Brumbaugh, R. Dan, Jr., *Thriffs Under Siege: Restoring Order to American Banking*, Ballinger Publishing Company, Cambridge, Mass., 1988.

- , *The Collapse of Federally Insured Depositories: The Savings and Loans as Precursor*, Garland Publishing, Inc., New York, 1993.
- Brumbaugh, R. Dan, Jr., and Robert E. Litan, "Ignoring Economics in Dealing with the Savings and Loan and Commercial Banking Crisis," *Contemporary Policy Issues*, Volume IX, No. 1, January 1991.
- , "A Critique of the Financial Institutions Recovery, Reform and Enforcement Act (FIRREA) of 1989 and the Financial Strength of Commercial Banks," *The Reform of Federal Deposit Insurance: Disciplining the Government and Protecting Taxpayers*, edited by James R. Barth and R. Dan Brumbaugh, Jr., HarperBusiness Publishers, New York, 1992.
- Brumbaugh, R. Dan, Jr., and Kenneth E. Scott, "The Endless Banking Crisis: Prospects for Reform in 1992," *Challenge*, March/April 1992.
- Calomiris, Charles W., "Is Deposit Insurance Necessary?: A Historical Perspective," *Journal of Economic History*, June 1990.
- , "Getting the Incentives Right in the Current Deposit Insurance System: Successes from the Pre-FDIC Era," *The Reform of Federal Deposit Insurance: Disciplining the Government and Protecting Taxpayers*, edited by James R. Barth and R. Dan Brumbaugh, Jr., HarperBusiness Publishers, New York, 1992.
- Carnell, Richard Scott, "A Partial Antidote to Perverse Incentives: the FDIC Improvement Act of 1991," Conference on Rebuilding Public Confidence through Financial Reform, Ohio State University, Columbus, Oh., June 29, 1992.
- Carron, Andrew S., and R. Dan Brumbaugh, Jr., "The Viability of the Thrift Industry," *Housing Policy Debate*, Federal National Mortgage Association, Summer 1991.
- Congressional Budget Office, *Budgetary Treatment of Deposit Insurance: A Framework for Reform*, May 1991.
- Cox, Robert B., and Steven Klinkerman, "Iowa Banks Fight Expansion by Norwest," *American Banker*, March 11, 1993.
- Flannery, Mark J., "Deposit Insurance Creates a Need for Bank Regulation," *Business Review*, Federal Reserve Bank of Philadelphia, January/February 1982.
- Friedman, Milton, and Anna J. Schwartz, *A Monetary History of the United States, 1867-1960*, Princeton University Press, Princeton, N.J., 1963.
- Gorton, Gary, and George Pennacchi, "Financial Innovation and the Provision of Liquidity Services," *The Reform of Federal Deposit Insurance: Disciplining the Government and Protecting Taxpayers*, edited by James R. Barth and R. Dan Brumbaugh, Jr., HarperBusiness Publishers, New York, 1992.
- Kane, Edward J., "A Six-Point Program for Deposit Insurance Reform," *Housing Finance Review*, July 1983.

- , *The Gathering Crisis in Federal Deposit Insurance*, MIT Press, Cambridge, Mass., 1985.
- , "Confronting Incentive Problems in U.S. Deposit Insurance: The Range of Alternative Solutions," *Deregulation Financial Services, Public Policy in Flux*, edited by George G. Kaufman and Roger C. Kormendi, Ballinger Publishing Co., Cambridge, Mass., 1986.
- , "The Political Foundations of the Thrift Debacle: The Incentive Incompatibility of Government-Sponsored Deposit Insurance Funds," *The Reform of Federal Deposit Insurance: Disciplining the Government and Protecting Taxpayers*, edited by James R. Barth and R. Dan Brumbaugh, Jr., HarperBusiness Publishers, New York, 1992.
- , "Banking Reform as Market-Constrained Political Process," prepared for the 1993 meeting of the American Association for the Advancement of Science, February 3, 1993.
- Kaufman, George C., "The Truth about Bank Runs," *The Financial Services Revolution: Policy Directions for the Future*, edited by Catherine England and Thomas Huertas, Kluwer, Boston, 1988.
- , "Lender of Last Resort, Too Large to Fail and Deposit Insurance Reform," *The Reform of Federal Deposit Insurance: Disciplining the Government and Protecting Taxpayers*, edited by James R. Barth and R. Dan Brumbaugh, Jr., HarperBusiness Publishers, New York, 1992.
- Litan, Robert E., *What Should Banks Do?*, Brookings Institution, Washington, D.C., 1987.
- , *The Revolution in U.S. Finance*, Brookings Institution, Washington, D.C., 1991.
- Meltzer, Allan H., "Financial Failures and Financial Policies," *Deregulating Financial Services: Public Policy in Flux*, edited by George G. Kaufman and Roger C. Kormendi, Ballinger Publishing Company, Cambridge, Mass., 1986.
- Merton, Robert C., "Operation and Regulation in Financial Intermediation: A Functional Perspective," mimeo, September 1992.
- Merton, Robert C., and Zvi Bodie, "On the Management of Financial Guarantees," *Journal of the Financial Management Association*, 21, No. 1, Winter 1992.
- Minsky, Hyman P., Dimitri B. Papadimitriou, Ronnie J. Phillips, and L. Randall Wray, "Community Development Banking," *Public Policy Brief*, The Jerome Levy Economics Institute of Bard College, No. 3, 1993.
- Passmore, Wayne, "Can Retail Depositories Fund Mortgages Profitably?," *Journal of Housing Research*, 3, No. 1, 1992.
- Peltzman, Sam, "Entry in Commercial Banking," *Journal of Law & Economics*, 8, October 1965.

- , "Toward a More General Theory of Regulation," *Journal of Law & Economics*, 19, August 1976.
- Phillips, Ronnie J., *The Chicago Plan and New Deal Banking Reform*, draft, December 8, 1992.
- Posner, Richard A., "Theories of Economic Regulation," *Bell Journal of Economics and Management Science*, 5, Autumn 1974.
- Rhoades, Stephen A., "The Herfindahl-Hirschman Index," *The Federal Reserve Bulletin*, March 1993.
- Romer, Thomas, and Barry R. Weingast, "Political Foundations of the Thrift Debacle," *The Reform of Federal Deposit Insurance: Disciplining the Government and Protecting Taxpayers*, edited by James R. Barth and R. Dan Brumbaugh, Jr., HarperBusiness Publishers, New York, 1992.
- Shadow Financial Regulatory Committee, Statement on an Outline of a Program for Deposit Insurance and Regulatory Reform, February 13, 1989, edited by George C. Kaufman, "Shadow Financial Regulatory Committee Statements Numbers 1-69," *Journal of Financial Services Research*, 6, No. 2, 1992.
- Stigler, George J., "The Theory of Economic Regulation," *Bell Journal of Economics and Management Science*, Spring 1971.
- Stiglitz, Joseph E., "S&L Bailout," *The Reform of Federal Deposit Insurance: Disciplining the Government and Protecting Taxpayers*, edited by James R. Barth and R. Dan Brumbaugh, Jr., HarperBusiness Publishers, New York, 1992.
- , "The Role of the State in Financial Markets," mimeo, 1993.
- Wells, Jean F., William D. Jackson, and M. Maureen Murphy, "Commercial Banking: An Analytical Survey of Its Regulation and Structure," *CRS Report for Congress*, Congressional Research Service, The Library of Congress, Washington, D.C., September 8, 1992.

Appendix

Table 1
Percentage Distribution of U.S. Financial Assets Held by All Financial Service Firms, 1950-1992

1950	1960	1970	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992
Depository Institutions (1)															
Commercial Banks															
51.2	38.2	38.6	36.8	36.3	35.2	34.2	34	33.1	31.9	31.2	30.8	30.4	30	26.9	26.5
U.S.-Chartered															
50.5	37.5	36.6	31.4	30.6	29.9	29.1	28.9	27.9	25.5	26.5	24.9	23.9	23.8	20.9	20.2
Foreign Offices in U.S.															
0.4	0.6	0.7	2.5	2.8	2.3	2	2	2.1	2.6	2.3	2.8	3.4	3.6	3.4	3.6
Domestic Affiliates															
0	0	1.1	2.6	2.6	2.7	2.8	3	3.1	3	3	2.9	2.9	2.7	2.2	2.5
Banks in U.S. Possessions															
0.3	0.1	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2
Savings and Loans															
5.8	11.8	12.8	15.2	14.6	14.2	14.9	15.7	14.8	13.9	14.1	14.2	11.6	10.2	7.2	6.1
Savings Banks															
7.6	6.9	5.9	4.3	3.9	3.5	3.5	3.3	3.1	2.9	3	3	2.7	2.4	1.9	1.8

Credit Unions																
0.3	1.1	1.3	1.7	1.6	1.7	1.8	1.8	1.9	2	2.1	2	1.9	2	1.9	1.9	
Contractual Intermediaries																
Life Insurance Companies																
21.3	19.4	15	11.5	11.4	11.5	11.5	11.1	11.1	11.1	11.3	11.7	11.8	12.3	11.8	11.6	
Other Insurance Companies																
4	4.4	3.7	4.3	4.2	4.1	4.1	3.9	4	4.2	4.4	4.5	4.6	4.7	4.6	4.6	
Private Pension Funds (2)																
2.4	6.4	8.4	11.6	10.9	11.7	12.4	11.5	11.9	11.5	11.4	10.9	11	10.4	17.1	17.1	
State and Local Government Retirement Funds																
1.7	3.3	4.5	4.9	5	5.3	5.7	5.7	5.7	5.7	5.8	6.3	6.9	6.7	7	7.2	
Others																
Finance Companies																
3.2	4.6	4.8	5	5.1	4.8	4.8	4.8	4.9	5	5.1	5.1	5.8	7	6.2	5.9	
Mutual Funds																
1.1	2.9	3.5	1.5	1.3	1.6	2	2.2	3.4	5.1	5	5.2	5	5.2	5.2	7.7	
Security Brokers and Dealers																
1.4	1.1	1.2	1.1	1.4	1.7	1.7	1.9	2.2	2.3	1.6	1.4	2.2	2.4	2.6	3.0	
Money Market Mutual Funds																
0	0	0	1.9	4.2	4.5	3.3	3.7	3.4	3.6	3.6	3.5	4.0	4.5	4.2	4.0	

REITs (3)															
0	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
SCO Issuers (4)															
0	0	0	0	0	0	0.1	0.2	0.4	0.8	1.2	1.4	1.7	2	2.1	2.2
Total Assets (\$ Billions)															
\$294	597	\$1,340	\$4,032	\$4,455	\$4,916	\$5,503	\$6,232	\$7,141	\$8,185	\$8,840	\$9,667	\$10,633	\$11,113	\$12,795	\$13,699

- Commercial Banks consist of U.S.-chartered commercial banks, domestic affiliates, Edge Act corporations, agencies and branches of foreign banks, and banks in U.S. possession. Foreign banking offices in U.S. include Edge Act corporations and offices of foreign banks. IBFs are excluded from domestic banking and treated like branches in foreign countries. Savings and loan associations include all savings and loan associations and federal savings banks insured by the Savings Association Insurance Fund. Savings banks include all federal and mutual savings banks insured by the Bank Insurance Fund.
- Private pension funds include Federal Employees' Retirement Thrift Savings Fund.
- REITs are real estate investment trusts.
- SCO issuers are securitized credit obligations.

Source: Flow of Funds Account, Board of Governors of the Federal Reserve System.

Table A-1
Summary of State Bank Branching Laws
State Classifications by Branching Types Prevalent
December 31, 1991

Statewide Branch Banking Prevalent (42 States)		Limited Branch Banking Prevalent (12 States)
Alabama	New Jersey	Arkansas (a)
Alaska	New Mexico	Colorado (a,b)
Arizona	New York (g)	Georgia
California	North Carolina	Guam
Connecticut	Ohio	Illinois
Delaware	Oklahoma (h)	Iowa
District of Columbia	Oregon	Kentucky (c)
Florida	Pennsylvania	Minnesota
Hawaii	Puerto Rico	Montana
Idaho	Rhode Island	Nebraska (d)
Indiana	South Carolina	North Dakota (e)
Kansas	South Dakota	Wyoming (f)
Louisiana	Tennessee	
Maine	Texas	
Maryland	Utah	
Massachusetts	Vermont	
Michigan	Virginia	
Mississippi	Virgin Islands	
Missouri	Washington	
Nevada	West Virginia	
New Hampshire	Wisconsin	

(a) Permitted through mergers, consolidations, and acquisitions of a failing bank.

(b) Holding companies may also convert subsidiary banks to branches: 60 percent 1991; 80 percent July 1992; 100 percent July 1993. One DeNovo allowed July 1, 1993. Wide-open branching 1997.

(c) Countywide facilities plus merger, consolidations statewide.

(d) Five branches in home city, unless acquired by merger of failure.

(e) Permitted only through mergers and consolidations, with no geographic restrictions. Also, facilities and stations are permitted subject to geographic restrictions and are in essence "branches."

(f) Permitted only through mergers and consolidations.

(g) Prohibited in so-called "home office" protection communities.

(h) Permitted through mergers, consolidations, and acquisitions of a failing bank. DeNovo branching geographically restricted to within 2.5 miles of main bank.

Source: Congressional Research Service.

Table A-2
State Interstate Banking Laws and Effective Dates:
Compendium December 31, 1991

Nationwide		Regional Reciprocity Required / Trigger Nationwide	Regional Reciprocity Required	States Without Interstate Statutes		
State	Date Enacted	State	Effective Date	State	Date Enacted	States
AK	07/82	IN	07/92	AL	07/87	HI
AZ (a)	10/86	KS	07/92	AR	01/89	MT
CA	01/91	DE	01/88	FL	07/85	
CO	01/91			GA	07/85	
CT (b)	03/90			IA (c)	01/91	
ID	01/88			KS	07/91	
IL				MD	07/85	
KY (d)	07/86			MN	07/86	
LA (e)	07/89			MS	07/88	
ME (f)	01/78			MO	08/86	
MA	07/90			NC	01/85	
MI (f)	10/88			SC	01/86	
NE (d)	01/91			VA	07/85	
NV (a)	07/85			WI	04/86	
NH (f)						
NJ (d,f)	01/88					
NM (a)	01/90					
NY (d,f)	06/82					
ND (d)						
OH (d)	10/88					
OK	05/86					
OR	07/89					
PA (f)	08/86					
RI (d,f)	01/88					
SD (d,f)	02/80 (g)					
TN (d)	01/91					
TX (a)	01/87					
UT	01/88					
VT (f)	01/88					
WA (d)	07/87					
WV	01/88					
WY	05/87					

(a) DeNovo entry permitted after specified time period: AZ 06/30/92; CO 07/01/93; NV 07/01/90; NM 07/01/92; TX 09/01/2001.

(b) May drop reciprocity after trigger of 07/01/93.

(c) Reciprocity not required.

(d) Reciprocity required.

(e) After 07/01/94, out-of-state bhc may open any new bank and acquire a nonestablished state bank if acquirer has established in the state.

(f) DeNovo entry permitted.

(g) Revised 02/88.

Source: Congressional Research Service.

**Table A-3
Restrictions on Bank's Activities or Powers**

National Banks	Banks in Holding Companies	State-Chartered Banks
<p>National banks in towns of 5,000 or less have been permitted to sell insurance.</p>	<p align="center"><i>Insurance</i></p> <p>Bank Holding Company Act (BHCA) says that insurance is not permitted as a "closely related to banking activity" for bank holding companies (bhc's).</p>	<p>Several states permit state-chartered banks to sell or to underwrite insurance or to do both.</p>
<p>Comptroller of Currency (OCC) has allowed national banks as incidental powers of banking to:</p> <ul style="list-style-type: none"> **sell fixed and variable-rate annuities **sell credit life insurance 	<p>Federal Reserve Board (FRB) recently permitted a bhc to continue to sell insurance through two state-chartered banks that it was acquiring in Indiana. In another ruling FRB refused to grant Citicorp the same power through a Delaware state-chartered bank.</p>	
<p>Glass-Steagall Act (G-S) prohibits national banks from selling, underwriting, or affiliating with securities businesses but allows banks to</p>	<p align="center"><i>Securities</i></p> <p>G-S prohibits banks from affiliating with entities in the securities business. BHCA forbids bhc's and their affiliates or subsidiaries from</p>	<p>G-S theoretically forbids all banks from engaging in investment banking directly.</p>

National Banks	Cont.	State-Chartered Banks
<p>deal with certain "bank-eligible" securities, such as Treasury issuances, and to buy and sell on order for bank customers.</p>	<p>engaging in businesses other than banking or those so "closely related as to be a proper incident thereto."</p>	<p>The following activities are permitted by at least several states to their state-chartered banks:</p> <ul style="list-style-type: none"> **equity investment **underwriting general obligations and revenue bonds **offering full service and discount brokerage
<p>Activities authorized by the Comptroller of the Currency for National banks:</p> <ul style="list-style-type: none"> **discount brokerage **investment company advice **collective investment fund management (IRAs) **placing securities privately **commercial paper sales **general obligation bond underwriting 	<p>FRB has authorized:</p> <ul style="list-style-type: none"> **sale and underwriting of corporate debt securities **underwriting commercial paper **underwriting municipal revenue bonds **underwriting consumer-related receivables and mortgage-backed securities **providing investment advice **brokering services **underwriting and dealing in money market instruments and **providing foreign exchange advisory and transactional services 	

National Bank Act limits national banks to explicit powers and “incidental powers as shall be necessary to carry on the business of banking.”

National banks may lease bank property and hold property that devolves upon them through loan default.

Source: Congressional Research Service.

Real Estate

BHCA limits bhc's to banking and activities so closely related as to be a proper incident thereto.

FRB has ruled the following activities to be “closely related” to banking:

- **leasing personal or real property
- **community development
- **real estate and personal property and appraising and
- **arranging commercial real estate equity financing

Various states authorize real estate development, equity participation, and brokerage activities for state-chartered banks.

Table A-4
State Authorization of Selected Expanded Activities for State-Chartered Banks (a)
March 1992

Securities Brokerage (discount and/or full)	General Securities Underwriting	Real Estate Equity Participation	Real Estate Development	Real Estate Brokerage	Insurance Underwriting	Insurance Brokerage
Alabama (b)	Arizona (b)	Arizona (b)	Arizona (b)	Alabama (b)	Delaware	Alabama (b)
Arizona (b)	California (c)	Arkansas	Arkansas	Arizona (b)	Massachusetts (d)	California
Arkansas	Connecticut (b)	California	California	California (d)	New Jersey (e)	Delaware
California (c)	Delaware	Colorado	Colorado	Connecticut (b)	North Carolina(d)	Idaho
Connecticut(b)	Florida	Connecticut(e)	Connecticut (e)	Florida	South Dakota	Indiana (g)
Delaware	Iowa (b)	Florida (b)	Delaware	Georgia	Utah (f)	Iowa
Florida (c)	Maine (b)	Georgia	Florida (b)	Idaho		Massachusetts (d)
Georgia	Massachusetts (d)	Iowa	Georgia	Massachusetts (d)		Minnesota
Hawaii (c)	Montana	Kentucky	Kentucky	Minnesota (b)		Nebraska (h)
Idaho (c)	New Jersey (e)	Maine	Maine	Nebraska		New Jersey (e)
Illinois	New York (b)	Massachusetts (d)	Massachusetts (d)	New Jersey (e)		North Carolina
Indiana	North Carolina (d)	Missouri (b)	Michigan	North Carolina (d)		Oregon
Iowa (b)	Rhode Island	Nevada	Minnesota	Rhode Island		South Dakota
Kansas (b)	Tennessee	New Hampshire (b)	Missouri (b)	Utah		Utah (f)
Kentucky	Texas (b)	New Jersey (e)	Nevada	Wisconsin		Virginia
Louisiana		North Carolina(d)	New Hampshire (b)			
Maine		Ohio	New Jersey (e)			
Maryland		Oregon	North Carolina (d)			
Massachusetts(d)		Pennsylvania	Ohio			
Michigan		Rhode Island	Oregon (b)			

Minnesota (b)
Missouri (b)
Nebraska
Nevada
New Hampshire (c) Washington
New Jersey (e)
New Mexico
New York
North Carolina (d)
North Dakota
Ohio
Oklahoma
Pennsylvania
Rhode Island
Tennessee
Texas (b)
Utah (b)
Vermont
Virginia (b)
Washington (b)
West Virginia (d)
Wisconsin

South Dakota
Tennessee (d)
Utah
Virginia
Washington

Pennsylvania
Rhode Island
Tennessee
Utah

- (a) Expanded activities above those permitted national banks and bank holding companies under the Bank Holding Company Act. Extent of practice unknown.
(b) Through a subsidiary.
(c) Laws are silent, but regulatory approval is possible.
(d) Possible through equity investment authority.

CM - Commercial Mortgages

Source: Congressional Research Service.

- (e) Possible through leeway authority.
(f) Grandfathered institutions.
(g) Except for life insurance.
(h) Only in towns with less than 200,000 population.

About the Authors

James R. Barth is Lowder Eminent Scholar in Finance at Auburn University and a member on the governing board of Purdue University's Credit Research Center. Dr. Barth was the Chief Economist of the Office of Thrift Supervision, and prior to that he served as the Chief Economist of the Federal Home Loan Bank Board. He has also been a Professor of Economics at George Washington University, Visiting Scholar at the Congressional Budget Office, Visiting Scholar at the Federal Reserve Bank of Atlanta, and Associate Director of Economics at the National Science Foundation. Dr. Barth has published more than 100 articles in professional books and journals: He is the author of *The Great Savings and Loan Debacle* (published by the American Enterprise Institute), co-author of *The Future of American Banking* (published by M. E. Sharpe), and co-editor of *The Reform of Federal Deposit Insurance: Disciplining the Government and Protecting Taxpayers* (published by HarperBusiness).

R. Dan Brumbaugh, Jr. is an economist in San Francisco, California. Dr. Brumbaugh has served as a consultant to financial service firms, to the U.S. House of Representatives Subcommittee on Financial Institutions, and most recently to the National Commission on Financial Institutions Reform, Recovery, and Enforcement. His previous positions have included Visiting Scholar at the Federal Home Loan Bank Board, Deputy Chief Economist at the Bank Board, and President and Chief Executive Officer of Independence Savings and Loan in Vallejo, California. Dr. Brumbaugh is the author of *The Collapse of Federally Insured Depositories: The Savings and Loans as Precursor* (published by Garland Press), *Thriffs Under Siege: Restoring Order to American Banking* (Harper & Row), co-author of *The Future of American Banking* (published by M. E. Sharpe), and co-editor of *The Reform of Federal Deposit Insurance: Disciplining the Government and Protecting the Taxpayers* (published by HarperBusiness).