The Functional Approach to Deposit Insurance and Regulation

*James L. Pierce**

Conventional wisdom contends that in order to assure financial stability, commercial banks require an elaborate federal regulatory and insurance structure and direct access to the central bank. Nonbank financial institutions apparently pose no threat and, therefore, merit less regulatory attention, no insurance, and no direct access to the central bank. Until relatively recently, the conventional wisdom was rarely challenged, and to this day it is viewed as bad form in some circles to ask why banks receive special attention.

The conventional approach to deposit insurance and bank regulation takes as given the deposit insurance and regulatory structure put into place in the early 1930s. Thus, it is assumed that commercial banks, operating with low net worth, will continue to issue federally insured or guaranteed liabilities (deposits) to support a host of risky and difficult-to-evaluate activities. In effect, it is also assumed that deposit insurance will continue to provide a valuable subsidy to banks, one that requires extensive regulation and supervision to limit bank risk (Merton 1977). Repairs in the institutional structure may be needed from time to time, such as provision for early supervisory intervention in an effort to limit the Federal Deposit Insurance Corporation's credit exposure, but the basic structure is left unchanged. And proposals will continue to be made for improvements, subject to the constraint that basic institutional arrangements remain unchanged. For example, most of the papers at this symposium are concerned with improvements: the use of bank regulation to control cycles in risky lending, and methods to achieve risk-sharing between the federal authority and private agents. These

*Professor of Economics, University of California at Berkeley.

papers, and many others like them, take current institutional arrangements as given and seek improvements on the margin. This approach can be productive, but it cannot solve problems that emerge from the institutional setting itself.

This paper argues that the fixed-institutions approach is inadequate to deal with the issues faced by public policymakers charged with responsibility for protecting financial stability and efficiency. It is necessary to take an approach in which certain crucial economic functions are the issue, not the preservation of existing institutional arrangements. In the functional approach, changes in institutional and regulatory arrangements are fair game. Those who champion the functional approach are subject to criticisms of impracticality, but it is those who cling to existing institutions who are the impractical ones. In economic matters, institutional form should follow function; attempts to force functions to follow preconceived and inflexible forms can be counterproductive.

In the modern, highly integrated financial environment in which nonbanks provide bank-like services and banks provide nonbanking services, why are banks singled out for special attention? What unique and crucial functions do banks perform that merit the attention and protection that are lavished upon them? And if their unique and crucial functions can be identified, is it necessary or desirable to have these functions combined with all the non-unique and non-crucial activities that banks pursue?

A technological revolution has stripped banks of their pivotal position in the financial system. Banks currently do virtually nothing that is not also done either by markets or by nonbank institutions. For example, the commercial paper market provides for the short-term financing needs of major corporations, and money market funds provide safe transactions accounts to households and institutional investors,[1] while commercial finance companies provide loans to small and medium-sized businesses.[2] From the functional perspective it would be just as appropriate for the Boston Fed to have a symposium entitled "Safeguarding the commercial paper market, finance companies, and money funds in an environment of financial cycles" as it is to emphasize protecting banks.

The federal government refuses to confront the implications of the technological revolution that has integrated financial markets and institutions. It continues to pursue policies designed to retain resources in banking organizations at the same time that profitable opportunities in

[1] Because money funds are not allowed direct access to the payments system, they must work jointly with banks.

[2] Currently, about 8 percent of outstanding business debt is owed to finance companies, while 12 percent is owed to commercial banks. With one-quarter the assets of banks, finance companies are able to provide more than two-thirds the business loans of banks.

the industry are shrinking.[3] In efforts to increase profitability, the government grants greater powers to banking organizations while continuing to protect them. This, in effect, spreads the federal safety net under a growing number of activities. It is presumed that regulatory and supervisory vigilance can be depended upon to hold the system together. For example, it is assumed optimistically that recent statutory changes have solved problems that developed in the 1980s and early 1990s. While these statutory changes did strengthen regulation, progressive weakening of the provisions is bound to occur as the government continues to strive to aid bank profitability. More generally, to rely on government regulators to provide the glue holding everything together is to be optimistic in the extreme. One has only to recall the savings and loan (S&L) debacle to appreciate the potential costs of such reliance.

Attempts to maintain the existing institutional structure will result in an increasing share of the financial system being protected by the federal safety net and subjected to regulation. Banking organizations will continue to have incentives to assume risk and not manage it well. We can look forward to many future symposia and conferences on cycles in bank risk and in bank failures. To maintain the status quo is a dangerous approach that ultimately could make the S&L debacle seem insignificant.

The Functional Approach

When bank regulation and deposit insurance are viewed functionally rather than in terms of current institutional arrangements, the system can be greatly improved and simplified. The economic and social objectives upon which current regulation and government deposit insurance are based can be better attained by adopting a functional approach, while the extent of regulation and market interference can be drastically reduced. Perhaps most important, the kind of breakdown in the regulatory and political process that produced the S&L debacle could not occur in the reformed structure.

Historically, commercial banks deserved government protection and needed regulation because they performed and uniquely combined two important economic functions: (1) provision of transactions accounts and payment services; and (2) origination and holding of loans that are difficult for third parties to evaluate because of the need for detailed information about the borrower and because of the need for monitoring.

---

[3] Bank profitability has been helped temporarily by a favorably sloped yield curve. This good fortune cannot be expected to last.

The monetary and payment services provided by banks have economic value because of economies of scale in gathering and processing information and transactions. Banks provide transactions accounts from which agents make and receive payments, they verify the ability of agents to make good on transactions commitments, they take care of accounting for transactions, and they guarantee certain transactions. Much of the efficiency gained from pooling transactions in banks would be lost if agents had to monitor banks for their ability to make good on transactions accounts and transactions services. Sellers would have to verify not only the ability of buyers to cover transactions but also the solvency of buyers' banks. Buyers would have to monitor their banks to assure that their checks and funds transfers are honored. It is difficult to imagine that the volume of transactions in a modern economy could be sustained if agents had to engage in extensive monitoring of their banks for safety of transactions accounts and payments. The deadweight loss of this monitoring is avoided if transactions accounts and payments are made safe.

Historically, banks used transactions account liabilities to support the origination and holding of business loans, whose values are difficult to evaluate without information that is costly to obtain. These loans often involve continuous monitoring of performance. By their nature, these loans are difficult to sell on secondary markets and have no observable price. With asymmetric information an important component, these loans tend to be highly illiquid. Following the convenient convention of Merton and Bodie (1993), these loans will be called "opaque."

Only about 25 percent of bank liabilities now are transactions accounts; they are no longer the primary means of supporting loans. Saving and time accounts, negotiable CDs, Eurodollars, and other liabilities are now the primary sources of bank funds, accounting in total for about 75 percent of bank liabilities. With transactions accounts supplying ever less of the funds used for bank loans, concerns over the safety of these accounts can be separated from concerns over the quality of bank lending. For regulatory purposes, monetary functions can be separated from conventional lending functions even though both might be available within a bank. This allows a tremendous simplification in the way that banks are regulated. Separation is the cornerstone of the functional approach. Note that money funds flourish without the ability to hold opaque assets, and finance companies flourish without offering transactions accounts. Thus, the ability to perform both of the functions in the same institutions is not a necessary condition for survival.

The safety of the monetary–payments system can be achieved through government insurance of transactions accounts and of funds transfers. But protection of the monetary–payments function does not require the kind of regulation and insurance of banks that is practiced currently. It is neither necessary nor desirable to regulate all activities of banks or to insure time accounts and other deposit liabilities, in order to protect their monetary–payments services.

It is important to note that provision of monetary–payment services and of opaque loans comprises a relatively small part of commercial bank activities. As indicated above, only about 25 percent of bank liabilities are transactions balances. Furthermore, only about 14 percent of bank assets are devoted to commercial and industrial loans—the "opaque" loans described above—while government securities and mortgage loans account for 24 percent and 27 percent of assets, respectively.

There is a growing awareness that it is unreasonable to attempt to protect the viability of lightly capitalized institutions granting loans to foreign governments and financing highly leveraged transactions and commercial real estate development, just because these institutions provide certain important functions. Why not use public policy to assure provision of the desired functions, rather than try to regulate and control institutions that pursue a variety of activities, including those of interest? If the goal is to have a safe monetary–payments system and provision of opaque loans, then public policy should pursue these goals directly rather than trying to force them into the mold of existing institutions.

Proposals to pursue such a functional approach began to appear in the mid 1980s, and they continue to be made.[4] The approach is slowly winning converts, and it recently received a strong endorsement from the bipartisan National Commission on Financial Institution Reform, Recovery and Enforcement, appointed to investigate the causes of the S&L debacle and to recommend reforms in the insurance and regulatory structure for banks (1993).

The various proposals differ in detail but not in substance. All recommend that insured transactions accounts be backed by safe assets. This could be accomplished in various ways: Banks could simply be required to hold short-term government securities as collateral for transactions accounts, or they could be required to establish the equivalent of a money market fund. This paper presents the case for requiring that insured monetary–payments services be provided by corporations that operate as money market funds with capital.

Institutions providing transactions accounts and payment services backed by safe assets are sometimes referred to as "narrow banks." That term will not be used here because it is nondescriptive and it tends to distort perceptions of what the reforms entail. The proposed institutions

[4] See, for example, Tobin (1986); Pierce (1986, 1991); Kareken (1986); Litan (1987); Gorton and Pennacchi (1992); and Merton and Bodie (1993).

are more like money funds than banks, and there is nothing narrow about the financial services firms housing these institutions.

With the monetary–payments system rendered safe, the rest of what is now banking would be left to the market. No bank liability other than transactions accounts would receive federal insurance or guarantees, and all special regulation and supervision of banks unrelated to their transactions account business would end.

A Proposal in the Spirit of the Functional Approach

It is convenient to consider a specific proposal, so that various issues and criticisms can be discussed productively. The proposal outlined below is one advanced in a recent book (Pierce 1991) and the one embraced by the National Commission on Financial Institution Reform, Recovery and Enforcement (1993). It is designed to deal with the various issues and criticisms that will be discussed after the proposal is presented.

The proposal focuses directly on monetary and financial functions. Banks continue to exist as one type of business providing these functions, but banking's internal structure is changed in a manner that protects banks' monetary activities while subjecting all their other activities to market discipline. This is accomplished by isolating monetary activities from all others within banking or other financial service organizations.

Monetary Service Companies

The purpose here is to isolate, insure, and protect monetary functions while eliminating insurance and protection for all other functions. Monetary services would be provided in legally separate monetary service companies that could be operated within banks or other financial service organizations. These highly regulated, separately capitalized companies would offer federally insured transactions accounts accessible for third-party transactions using checks, electronic transfers, or cash withdrawals in the form of either currency or orders to pay a third party.

Monetary service companies would be highly restricted concerning the assets that they could hold. They would be limited to purchases of the same sorts of short-term, highly marketable, and highly rated instruments that are in the portfolios of today's money market mutual funds. These include short-term Treasury securities, highly rated commercial paper, and similar instruments. Unlike money market funds, however, the monetary service companies would have a capital base and enjoy federal insurance for all their liabilities.

Rules of operation and standards of licensing for these companies would be established and enforced by the Federal Reserve System, which would also be authorized to supervise these institutions and to approve mergers and acquisitions in which they are involved. The Federal Reserve also would administer the federal insurance program for monetary service companies through its subsidiary, the Federal Deposit Insurance Corporation (FDIC). Because monetary service companies would hold only highly liquid market securities, their condition would be marked to market daily. They would be subject to risk-based capital standards and risk-based insurance premiums in a system of vigorous and effective regulation and supervision. With risk easily controlled, the "market discipline" of uninsured depositors would not be required. Accounts would be insured without limit as to size, allowing large payroll and other activities to be fully insured.

Entry into the monetary services business would be open to all who met the minimum standards. Thus, banks could operate their transactions account and payment services business through separately capitalized monetary service companies. Similarly, money market mutual funds could convert to stock form and operate as monetary service companies. Furthermore, any collection of individuals or any corporate entity could operate a separately capitalized company, provided they met the licensing and operating standards.

Crucial to establishing and operating a monetary service company would be the explicit and ironclad restriction that it not lend to its owners. It could provide transactions accounts and payment services to its owners on the same basis as for other customers, but that is all. Thus, a monetary service company might be owned and operated by a bank, pay dividends, and receive capital injections, but it could not lend money to the bank, buy its market obligations such as CDs, or in any other way be involved in providing funds to it. The same restrictions, backed by stiff criminal and civil penalties for willful violation, would apply to transactions with any other owner, be it a bank holding company, securities firm, insurance company, retailer, manufacturer, private individual, or whatever. These restrictions would eliminate conflicts of interest and help maintain the effective corporate separateness that would protect monetary service companies against failure of their owners. The Federal Reserve would promulgate regulatory safeguards to prevent confusion by the public in distinguishing between the insured accounts at monetary service companies and the uninsured liabilities of institutions with which these companies might be affiliated.

To guarantee separateness and thereby ensure that the fortunes of their owners and affiliates would not impinge on the fortunes of monetary service companies, legislation would establish that no monetary service company is responsible for the debts of related entities. For example, if it were part of a bank holding company, the creditors of the parent company or its nonmonetary affiliates would have no claim on it. The same restrictions would hold if it were part of some other financial conglomerate. Failure of any other entity could not threaten the monetary service company. This approach is similar to the way that regulations in many states now protect insurance companies against attacks by creditors of companies affiliated with the insurance companies in a financial conglomerate. Federal laws would provide ironclad protection for monetary service companies.

With separateness established, a monetary service company would be free to operate offices wherever it chose. A banking organization, retailer, or other corporation could run such a company in the same location where it offered other services. Further, a monetary service company would be free to share personnel, information, data processing, and expertise with its affiliates, in order to exploit any synergies and efficiencies. However, to protect it from being operated as a "loss leader" by its owners or affiliates in order to attract customers to other products, the Federal Reserve would be empowered to close a monetary service company if it incurred chronic losses. The Fed would also be authorized to promulgate regulations concerning allocations of overhead and other expenses, to set minimum capital standards, and to limit dividend payments when such action was required to meet these standards.

Along with its supervisory functions, the Federal Reserve would be authorized to impose reserve requirements on the liabilities of monetary service companies, just as it currently imposes reserve requirements on transactions accounts of banks and thrifts. The Fed would also be required to make the discount window available to these companies and to allow them access to its check clearing and electronic funds transfer systems. In effect, the Federal Reserve's current special relationship with banks would be transferred to the monetary service companies. The Fed's ability to conduct monetary policy would not be weakened in any way.

Nothing in this proposal would prevent a business from operating an uninsured money market fund or other institution that allowed customers to withdraw their money by check or wire transfer. The object is not to make all checkable assets safe but rather to offer the public a totally safe alternative.

Financial Service Companies

All activities other than those of monetary service companies would be conducted by financial service companies, without the regulation and supervision imposed on today's banks. It is convenient to think of financial service companies as operating in tandem with monetary service companies within a banking or financial conglomerate, but the actual corporate structures would be left up to the owners. Perhaps the easiest way to appreciate what financial service companies could do is to start with conventional banking organizations. They could operate their transactions account and payment services through monetary service companies. What remained would form the nucleus of financial service companies, which would operate side by side with monetary service companies. Banks' savings and time accounts, plus their other liabilities, would be obligations of financial service companies.[5] Banks' lending to business and consumers and all of their other existing financial services would be executed by financial service companies. To this nucleus would be added the authority to offer all kinds of insurance, as well as full securities underwriting, brokerage, and mutual funds, along with any other financial service the companies chose. Thus, they would be able to provide a complete range of financial services, except for insured monetary services. A financial service company could own a monetary service company; the two could share facilities, personnel, and information; they could even operate side by side in the same offices; but the monetary service company would be insulated from the fortunes of its owners. Bank holding companies as such would disappear and be replaced by the corporate umbrellas containing monetary service companies and financial service companies.

Financial service companies have been described here as banking organizations legally, but not physically, separated from monetary functions and augmented by other financial activities, but they could begin as insurance companies or securities firms. In effect, financial service companies would be financial conglomerates, where the nonmonetary part of banks and thrifts is joined with insurance, securities, mutual fund, and other financial activities.

Financial service companies would be regulated in the same way that nonbank providers of financial services are currently regulated. Federal laws concerning antitrust, securities regulation, and truth in lending would apply to them, as would state laws, including those that regulate insurance companies. The massive and cumbersome regulatory apparatus that currently governs banks and bank holding companies would be eliminated. The Office of the Comptroller of the Currency and the Office of Thrift Supervision would disappear, as would the regulatory functions of the Federal Reserve and the FDIC relating to activities apart from those of monetary service companies. Federal statutes and regulations concerning bank holding companies would also be eliminated.

So much regulation could be eliminated primarily because none of the liabilities issued by financial service companies would be insured;

[5] Thus, about 25 percent of current banking activity would go to monetary service companies and 75 percent to financial service companies.

there would be no federal guarantee or protection against failure. The government would be taken out of the business of protecting holders of nonmonetary liabilities issued by what are now banks and thrifts, and it would not be responsible for the "safety and soundness" of financial service companies.

Financial service companies would have access to the Federal Reserve's discount window on an emergency basis in order to allow them to honor credit lines and to handle problems in rolling over their liabilities in the event of a severe loss of liquidity. This would allow the central bank to exercise its powers as lender of last resort when a clear emergency was involved. But the discount window would not be available to bail out insolvent institutions.

It is important to appreciate that this division of functions between monetary and all other financial services would not be obtrusive to the public. From a legal and regulatory perspective, the structure of banking would be fundamentally altered. But institutions called banks could continue to operate, providing the services they currently offer plus many more. These new banks would look much the same to the general public as their current banks. Deposits and withdrawals could be made for a wide variety of accounts; loans and other financial services would be available. Transactions accounts would function the same way as currently. The differences would be that business transactions accounts would earn interest, no upper limit would be imposed on insured balances, and the accounts would be the liabilities of banks' monetary service companies, which could invest only in short-term marketable instruments. Customers could make deposits into time accounts, purchase mutual funds, and acquire other assets in the same offices, even use the same teller—human or electronic—for monetary service company and financial service company business. Funds placed with banks' financial service companies would be at risk, however, and customers would have to be clearly informed that this is the case. Banks could use the same offices to provide credit ranging from car and mortgage loans to various kinds of loans to business. This credit would not be funded by insured transactions accounts, however, but by time accounts and other liabilities issued by banks' financial service companies.

Nothing in the proposal requires institutions offering these various services to be called banks. They could call themselves whatever they wanted and provide whatever combination of services they found attractive. The only restriction would be that if an institution wanted to offer insured transactions accounts and use the Federal Reserve's funds transfer system, it would be required to do so through a separate, regulated monetary service company.

The Importance of a Transition Period

The functional approach appears radical because it would abandon a regulatory approach that has been in place for 60 years. It could be phased in, however, over several years and in such a non-radical fashion as to be acceptable to all but arch protectors of the status quo.

A period of transition would be needed to give depository institutions and regulators time to adjust to the new environment. Nothing is radical about such a transition; in fact, several proposals to improve existing regulation and supervision, including those made at this symposium, could become steps in the transition to a world of functional regulation.

The transition is described here in some detail in order to demonstrate how mild it can be.[6] It involves a gradual introduction of risk to depositors and other creditors of banks,[7] and a gradual shift of activities out of protected banks and into unprotected financial service companies. A first step would be to get rid of the doctrine of too-big-to-fail by gradually imposing "coinsurance" for *all* banks, in which the costs of bank failures are shared between the FDIC and large, uninsured depositors.[8] The costs would include losses from FDIC payouts when banks are closed and the expenses of arranging takeovers. The potential loss for large depositors is initially small; they could lose a maximum of 10 percent of the principal and interest owed to them by a failed bank. This is a risk exposure low enough to avoid a massive outcry from large depositors, yet large enough to induce them to extract interest rate premiums and increased equity positions from risky banks in exchange.

All types of deposits currently covered by insurance would initially continue to enjoy protection, but the insurance limit would be on a per depositor basis—initially retained at $100,000—and rigorously enforced; any balances in excess of the limit would be subject to coinsurance. Transactions accounts would be the exception. For them, insurance would be extended beyond the limit applied to other accounts, provided that the bank secured balances in a transactions account in excess of that limit by low-risk, short-term market securities of the type to be allowed for monetary service companies. Institutions that set up separately capitalized monetary service companies would have the transactions accounts in these companies insured without limit. They would be

---

[6] For more detail, see Pierce (1991).

[7] While the introduction of risk could be made through holders of subordinated debt, it is more direct and more in the spirit of transition to make large deposit accounts the subordinated debt.

[8] As an indication of how noncontroversial coinsurance is, except among regulators, it has been proposed by the American Bankers Association, which opposes imposition of the doctrine of too-big-to-fail. See American Bankers Association (1990).

allowed to pay interest on their business accounts, giving businesses incentive to shift funds out of their non-interest-bearing transactions accounts at banks and into monetary service companies.

Over time, the extent of coinsurance would be increased gradually until accounts with balances in excess of the insurance limit—except for secured transactions accounts and accounts at monetary service companies—would be totally at risk. The insurance limit would also be gradually reduced to zero. At that point, secured transactions accounts and monetary service company liabilities would be the only insured accounts at banks (and thrifts). The process could be spread out over a decade or more, but ultimately depositors and other creditors of banks would assume responsibility for all the principal and interest owed them. The risk exposure for the FDIC would be reduced commensurately.

The proposed transition also would involve exploiting and gradually altering the holding company structure for banks, to encourage a division of activities between monetary and financial service companies. The essential first step would be to attain corporate separateness between banks and all other elements of their holding companies. This would be done by ending Federal Reserve regulation of parent holding companies and their nonbank affiliates, including elimination of capital requirements for holding companies and an end to the stricture that parent companies and nonbank affiliates serve as "sources of strength" for affiliated banks. Further, creditors of parent companies and nonbank affiliates would be at risk—the FDIC would expend no funds in their behalf—and they would not be responsible for the obligations of banking affiliates or their subsidiaries. To protect banks against other constituents of these holding companies, the Federal Reserve would continue to police transactions between banks and these constituents, and penalties would be increased for violations of sections 23A and 23B of the Federal Reserve Act, including the imposition of criminal penalties for willful violation of the limits on these transactions.

With corporate separateness firmly in place, bank holding companies would gradually be granted new powers, such as full securities activities and the ability to offer general forms of insurance. But these activities would have to be conducted by nonbank subsidiaries and not by the banks themselves. The new subsidiaries (financial service companies) would not be regulated by the Federal Reserve or by any other banking regulator. They would be treated exactly as nonbank financial institutions are treated today. The new subsidiaries would not be covered by the federal safety net, so their creditors would be at risk. By law, these creditors would have no claim on the bank or banks in the holding company. As these changes were taking place, existing securities firms and insurance companies would be allowed to acquire or establish banks through bank holding companies. These firms also would receive no protection from the safety net, and their creditors would have no claim on the banks in the holding companies.

Along with these changes, banks and bank holding companies would receive increasing incentives to shift existing nonmonetary activities into unprotected and unregulated holding company subsidiaries, which would be allowed to share facilities and personnel with monetary activities. Any nonmonetary business conducted by monetary service companies, the regulated and protected part of banks (and thrifts) and their subsidiaries, would be subjected over time to substantial and rising capital requirements issued by their primary regulator, the Federal Reserve. These requirements could be avoided by shifting the activities into separate, unregulated, and unprotected holding company subsidiaries or financial service companies. By gradually raising the capital requirements to onerous levels, nonmonetary activities would be forced out of the regulated and protected part of existing banks. At some point—perhaps as long as a decade after the process began—holding companies would be required to shift any remaining nonmonetary activities to unprotected and unregulated subsidiaries. Monetary and financial services would become functionally separated within their banks and their holding company structures.

Over time, banks (and thrifts) would be subjected to increasing market discipline, and a growing number of financial dealings would be conducted by holding company subsidiaries that did not enjoy government protection and were not under the jurisdiction of banking regulators. Progress could be relatively slow and orderly, allowing ample opportunity for adjustment and verification that monetary and credit stability is preserved. The transition could be slowed down or speeded up as conditions warrant. When the transition was complete, owners of financial service companies could own what have become monetary service companies, but these companies would be tightly regulated, notably with ironclad restrictions on financial transactions with affiliates and owners. By this time, the banking regulators would have nothing left to do. The bank and thrift regulatory agencies would then be eliminated, with the regulation and federal insurance of monetary service companies consolidated in the Federal Reserve System.

Possible Problems with the Functional Approach

For the functional approach to have a chance of adoption, it is necessary to convince skeptics in government that it will not generate major problems. Three possible problems will be discussed. The first and easiest is the possibility that the supply of "opaque" credit would dry up if a bank could not use insured deposit accounts to fund these loans. Second is the specter of the 1930s: Would the functional approach increase the chances of panic and financial collapse? Third, would the assertion that non-transaction-account liabilities are at risk prove to be empty, because the federal government would come to the assistance of major "banking" organizations even if their liabilities were not insured? That is, would the doctrine of too-big-to-fail prevail?

The Supply of Business Loans

It is possible that information-intensive loans requiring extensive monitoring would become more costly if banks could no longer fund these loans with insured liabilities. But it is far from obvious that this would be the case. Commercial finance companies do not have federally insured liabilities, yet they are currently competitive with commercial banks as a source of business credit. This suggests that it would be profitable for financial service companies to offer business loans on roughly the same terms as those currently available in the market.

It is neither possible nor desirable to guarantee that "opaque" loans would be no more costly under the functional approach than under current arrangements. If private markets do not provide a sufficient quantity of business loans to meet society's needs, then the appropriate response is to provide direct subsidies. It is not appropriate to continue insurance of bank deposits in an attempt to maintain bank lending to business. Banks have devoted a declining share of assets to business loans and are likely to continue to do so, even with insured deposits.

It would be little better to provide insurance for bank accounts if these are placed either in safe assets or business loans. This would do little to control risk because a business loan could be defined arbitrarily. Certainly it could not be guaranteed that the business loans supported by insured accounts would be the kind of opaque loans that are considered important.

Finally, it might be argued that small banks, which are more attuned than large banks to the needs of medium-size and small customers, must have deposit insurance in order to survive. They would be unable to compete with large institutions if their liabilities were at risk. No evidence supports this argument. Many small banks are in far better condition than the largest banks. These small institutions could raise uninsured funds from their local markets, and by pooling resources they could even tap national and international markets.

Financial Crises: Silent Runs, Panics, and Crashes

Those who fear or distrust the functional approach seem to believe that substitution of market discipline for government-imposed prudential regulation of banks' lending and other financial service activities would produce financial instability. According to this argument, "credit cycles" and the misallocation of credit would become more pronounced when concerns for the safety and soundness of banks' nonmonetary activities are left to the market. Furthermore, deprived of deposit insurance and the doctrine of "too-big-to-fail," large creditors at formerly protected banks would engage in "silent runs" at the first sign of trouble, producing panics and crashes. If these events were likely to arise as a consequence of the functional approach, it would be irresponsible to propose it. Instead, this paper will argue that such calamities actually would be less likely under the functional approach than they are today.

Monetarists take the position that financial crises are a consequence of bank runs in which flights to currency deprive the banking system of reserves (Friedman and Schwartz 1963; Schwartz 1986). The solution to the bank-crisis problem is straightforward: The central bank must act as lender of last resort and be the ultimate source of liquidity. With an effective central bank, 1930s-type banking panics and collapses of the money stock (and opaque credit) will not occur. Monetarists recognize that panics can develop in individual financial markets, but they consider these "pseudo financial crises" to be of relatively little importance because they have no particular consequences for the quantity of money.

The functional approach scores high on the monetarist scale for promoting financial stability. Banks' monetary functions are completely protected by deposit insurance. Should bank runs occur even with this protection, nothing in the functional approach would prevent the Federal Reserve from stabilizing reserves and the quantity of money.

Other economists are more concerned than are monetarists about crises in important financial markets (Minsky 1972; Kindleberger 1978; Hubbard 1991). Even in the absence of a banking panic, a breakdown in the commercial paper market or in the stock market can cause "panic" and a "flight to quality." Borrowers with serious asymmetric-information problems (that is, those with opaque loans) will have to pay relatively high interest rates and may be rationed out of the market, with deleterious effects on real economic activity (Mishkin 1991; Diamond 1991). While these kinds of crises are unlikely to have the devastating effects of crises that involve damage to the nation's monetary and payment system, a good case can be made for central bank intervention to soften their effects. Nothing in the functional approach prevents the Federal Reserve from providing liquidity should a crisis hit the commercial paper or stock markets, just as it has done in the past.

Historically, banking crises have been harmful, not only because of their destructive effects on the monetary and payments system, but also because banks' ability to deal in opaque loans was impaired (Bernanke 1983; Calomiris and Gorton 1991). The functional approach might appear to leave solvent financial service companies that hold assets whose values are difficult to ascertain susceptible to "silent runs." Unable to roll over maturing debt because creditors lose faith (flight to quality), financial service companies might be forced to sell their opaque assets at substantial discounts, forcing otherwise solvent institutions into bankruptcy. This could have adverse consequences for borrowers with asymmetric-information problems who cannot easily shift to other lenders.

Under the functional approach, financial service companies are allowed to fail. This will provide incentive for financial service companies to adopt safeguards to protect themselves against silent runs. They will have incentive to arrange for credit lines with other financial service companies, to avoid bunching of maturities for liabilities and to extend them, to hold liquid assets, and to engage in cross guarantees. These actions lessen the effect of a temporary loss of confidence by creditors. It should be noted that finance companies, which receive no federal insurance or guarantees, now use these safeguards with considerable success.

But what if creditors lose faith in financial service companies generally, and many of them experience silent runs? Should creditors lose faith in them in general and demand payment when their credits mature, the money has to go someplace, and it is highly unlikely even during a panic that these creditors will demand currency. If they do, the Federal Reserve must supply it, offsetting the negative effect on reserves through open market purchases. It is more likely, however, that these funds will be shifted to other uses, and one likely place is the safe accounts at monetary service companies. They will take this money and use at least part of it to purchase the securities being issued by solvent financial service companies. Thus, some of the funds are recycled to the place where they started. Should this recycling prove inadequate, the central bank should engage in open-market operations to ease general liquidity pressures when a "flight to quality" occurs, and it should use monetary service companies as conduits for channeling funds to solvent financial service companies that are experiencing liquidity problems. The monetary service companies borrow from the Federal Reserve and use the proceeds to buy market instruments issued by financial service companies. It is important that this conduit function of monetary service companies not be extended beyond purchasing instruments that meet their ordinary standards for investments. But the Federal Reserve could extend credit directly on an emergency basis to solvent institutions that do not have high ratings for their money market instruments or cannot market these instruments at all.

While the Federal Reserve is more than capable of averting liquidity crises, such crises are less likely to occur under the proposed restructuring than in today's banking system. Currently, large banks are able to market vast amounts of very short-term debt at favorable terms because these liabilities receive implicit guarantees from the government. Creditors have far too little incentive to monitor these institutions because the regulators are doing the job for them. Furthermore, they limit risk by extending credit for short periods of time. Should problems begin to surface, creditors can probably get their money out before a bank goes under. But the shorter the maturity of a bank's liabilities, the more quickly it can be wiped out by silent runs. This is what happened to Continental Illinois.

Institutions must be allowed to fail, in order to encourage the market discipline that limits the scope of failures. But with recycling available from monetary service companies, and ultimately backed up by the Fed, systemic risk is eliminated. The failure of one financial service company has no particular bearing on the viability of others. Market discipline is likely to do a better job of controlling failures than is government regulation because, among other reasons, market participants have greater incentives to perform well. To give an important example, financial service companies facing significant risk would not be allowed by creditors to operate at the capital ratios allowed today's banks (Merton 1977; Merton and Bodie 1993). Furthermore, it is unlikely that private creditors would tolerate the stampedes into loans to less developed countries, into energy and real estate lending, into financing of highly leveraged transactions, and into commercial real estate development that have been tolerated by government regulators.

While regulation of risky activities should be left to those who bear the risk, a role remains for government intervention during times of panic and distress. But the intervention should not entail attempts to perpetually indemnify agents against risk. The existing institutional approach is bringing more and more risky activities under the federal safety net and this increases the chances of ultimate collapse. The functional approach seeks to distribute risk to those able and willing to manage it, thereby reducing the chance of ultimate debacle.

Dealing with the "Time-Inconsistency" Problem: Too-Big-To-Fail

A potential problem with attempts to impose market discipline is that the government may not be able to commit credibly to the abandonment of its doctrine of too-big-to-fail (Goodfriend 1993). A potential "time-inconsistency" problem remains, within which it could be socially optimal for the government to renege on its threat to allow large financial service companies to fail. Private agents are aware of this prospect and would not apply sufficient discipline because under certain circumstances they would be bailed out. In some respects the problem is similar to the one encountered by governments that lack credibility in containing inflation. The solution is the same: Credibility had to be earned by continuing to contain inflation, and credibility has to be earned by allowing large institutions to fail.

At most, creditors of major institutions should be protected only when it can be demonstrated that such action would head off a major, widespread panic and that the benefits of such an action would exceed the negative reputational effects of reneging on the threat to allow major institutions to fail. With the burden of proof on those who seek to provide protection, too-big-to-fail would be rarely invoked. Absent such proof, financial service companies would be allowed to fail. If regulators could be depended upon to play fair and only impose too-big-to-fail when the resulting benefits obviously exceed the cost, the time inconsistency problem would be unlikely to have much of a stunting effect on market discipline. Unfortunately, a "Chicken Little" mentality appears to exist among regulators, who see the sky as always in danger of falling.

It is to be hoped that the functional approach would produce a "cultural" change in regulators. By assuring the safety of the monetary–payments system, the functional approach deals with the primary reason for fearing failure of major banks. With money and payments safe, nothing is "special" about noninsured banks; the government should care no more about the failure of a major bank than it does about the failure of a major finance company or manufacturer. Bailing out a major financial service company should occur no more frequently than bailing out an auto company, a defense contractor, or a city. If the problem can be reduced to infrequent, politically motivated interventions, it is unlikely to prove major.

The Burden of Proof

I think I can speak for other proponents of the functional approach when indicating frustration over the lack of serious discussion of the issues by proponents of the status quo. If the functional approach is impractical or fatally flawed, then its critics should be able to provide clear and compelling explanations as to why. The functional approach will never get anywhere without the support of the Federal Reserve System, support that the Fed apparently is not willing to give. The Fed should accept the burden of proof to explain, if it can, why the functional approach cannot work. While the Fed may have no obligation to respond to the proposals of academics, it does owe the National Commission on Financial Institution Reform, Recovery and Enforcement the courtesy of a response to its 1993 recommendation that the functional approach be adopted.

The Federal Reserve should explain why it cannot deal with problems it foresees with the functional approach; why it cannot develop closure rules to protect the payments system; why the doctrine of corporate separateness will not work; why the discount window and open market operations will be insufficient to deal with silent runs and other panics; why it is desirable to protect creditors at major banking institutions; and why the Federal Reserve cannot withstand political pressures to bail out failed institutions. It is my guess that the Federal Reserve would be hard-pressed to come up with a set of "whys" that would withstand careful scrutiny.

A Response to Purists

The functional approach has been criticized because it proposes a role for government in the monetary–payments system without proving that a role is justified (Flannery 1992, 1993). After all, money market funds devoted to short-term government securities provide safe accounts without the need for government interference, and private payments systems such as CHIPS achieve low risk through cross-guarantees.

Huge improvements can be made in the current process without dealing with the issues raised by purists—issues that can be dealt with later. The functional approach offers a rational and stable system. Perverse incentives and distortions in resource allocation are eliminated, too-big-to-fail is gone, and the Comptroller of the Currency and the Office of Thrift Supervision are eliminated, while the regulatory and supervisory activities of the FDIC and the Fed are reduced to supervising and insuring the equivalent of money funds. All of this is accomplished while the monetary–payments system remains safe, the public retains the ability to hold federally insured accounts, and the Federal Reserve retains the ability to intervene in times of panic. After the transition is complete and after it has been demonstrated that the system is stable, it will be time to examine whether the federal presence should be reduced even more.

References

American Bankers Association. 1990. *Federal Deposit Insurance: A Program For Reform.* Washington, D.C., March.

Bernanke, Ben. 1983. "Nonmonetary Effects of the Financial Crisis in the Propagation of the Great Depression." *The American Economic Review*, vol. 73, (June), pp. 257–76.

Calomiris, Charles and Gary Gorton. 1991. "Asymmetric Information and Financial Crisis: A Historical Perspective." In R. G. Hubbard, ed., *Financial Markets and Financial Crises.* Chicago: University of Chicago Press.

Diamond, Douglas W. 1991. "Monitoring and Reputation: The Choice between Bank Loans and Directly Placed Debt." *Journal of Political Economy*, vol. 99, no. 4, pp. 689–721.

Flannery, Mark J. 1992. "Review of *The Future of Banking*, by James L. Pierce." *Journal of Finance*, vol. 47, no. 1, pp. 417–20.

———. 1993. "Deposit Insurance Reform: a Functional Approach. A Comment." *Carnegie-Rochester Conference Series on Public Policy*, no. 38, June.

Friedman, Milton and Anna J. Schwartz. 1971. *A Monetary History of the United States, 1867–1960*. Princeton, NJ: Princeton University Press.

Gorton, Gary and George Pennacchi. 1992. "Money Market Funds and Finance Companies: Are They the Banks of the Future?" In M. Klausner and L. White, eds., *Structural Change in Banking*. Homewood, IL: Irwin.

Hubbard, R. Glenn, ed. 1991. *Financial Markets and Financial Crises*. Chicago, IL: University of Chicago Press.

Kareken, John H. 1986. "Federal Bank Regulatory Policy: A Description and Some Observations." *Journal of Business*, vol. 59, no. 1, pp. pp. 3–48.

Kindleberger, Charles. 1978. *Manias, Panics, and Crashes*. New York: Basic Books.

Litan, Robert E. 1987. *What Should Banks Do?* Washington, D.C.: The Brookings Institution.

Merton, Robert C. 1977. "An Analytical Derivation of the Cost of Deposit Insurance and Loan Guarantees: An Application of Modern Option Pricing Theory." *Journal of Banking and Finance*, vol. 1, no. 1 (June), pp. 3–11.

Merton, Robert C. and Zvi Bodie. 1993. "Deposit Insurance Reform: a Functional Approach." *Carnegie-Rochester Conference Series on Public Policy*, no. 38, June.

Minsky, Hyman. 1972. "Financial Stability Revisited: The Economics of Disaster." In *Reappraisal of the Federal Reserve Discount Mechanism*, vol. 3. Washington, D.C.: Board of Governors of the Federal Reserve System.

Mishkin, Frederic S. 1991. "Asymmetric Information and Financial Crises: A Historical Perspective." In R. Glenn Hubbard, ed., *Financial Markets and Financial Crises*. Chicago, IL: University of Chicago Press.

National Commission on Financial Institution Reform, Recovery and Enforcement. 1993. *Origins and Causes of the S&L Debacle: A Blueprint for Reform*. Washington, D.C.: Government Printing Office, July.

Pierce, James L. 1986. "Financial Reform in the United States and the Financial System of the Future." In Yoshi Suzuki and Hiroshi Yomo, eds., *Financial Innovation and Monetary Policy: Asia and the West; Proceedings of the Second International Conference Held by the Bank of Japan*. Tokyo: University of Tokyo Press.

———. 1991. *The Future of Banking*. New Haven: Yale University Press.

Schwartz, Anna. 1986. "Real and Pseudo-Financial Crises." In F. Capie and G. Wood, eds., *Financial Crises and the World Banking System*. New York: St. Martin's Press.

Tobin, James. 1986. "Financial Innovation and Deregulation in Perspective." In Yoshi Suzuki and Hiroshi Yomo, eds., *Financial Innovation and Monetary Policy: Asia and the West; Proceedings of the Second International Conference Held by the Bank of Japan*. Tokyo: University of Tokyo Press.