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Major Trends in the U.S. Financial System: Implications and Issues

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The major trends shaping the current evolution of the U.S. financial system conflict with an outmoded legal and regulatory framework. Reform of that framework is needed to promote an efficient and stable financial system. Specifically, reforms are needed in the deposit insurance system, bank powers, and the large-dollar, electronic payments system .

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Shaped by the interaction of economic, technological, legal, and regulatory forces, the U.S. financial system is undergoing signficant change. During the next five to ten years, it increasingly will be characterized by:

- reliance on primary securities markets, with a diminishing role for traditional bank-provided intermediation;
- institutional realignment of functions in the provision of financial services, including clearing and settlement;
- expanded access to the payments system; and
- geographic integration, including internationalization of financial activity, with around-the-clock trading and settlement.

The present legal and regulatory structure often conflicts with fundamental economic and technological forces. Moreover, the piecemeal efforts to resolve these conflicts and to accommodate market forces have resulted in several undesirable consequences. First, financial change is occurring through the exploitation of legal and regulatory loopholes rather than in a manner that ensures the evolution of an efficient financial system. The proliferation of new instruments, the transfer of traditional banking activity to nonbanks, and the staggering volume of daily payments activity, for example, may be as much a result of efforts to avoid regulation as a response to fundamental economic needs.

Second, although partial integration of financial activities and of financial and commercial activities is occurring, the important issues of how to reform the federal safety net and how far to extend its coverage are not being resolved. Third, as activity shifts to international financial centers and less-regulated nonbank firms, domestic banking firms are left with a diminishing proportion of overall financial activity.

The legal and regulatory framework should be reformed to accommodate market-driven forces for change. However, such reform also must be consistent with the goal of preserving financial stability. These criteria imply that federal supervision, regulation, and protection of the financial system should be structured and conducted in a way that promotes stability while limiting the perverse incentives for risk-taking and the possibility of large government expenditures that government intervention can create. In this paper, I presume that limited government guarantees, directed at payments balances and savings balances held by depositories, are

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desirable. The optimal extent and structure of such guarantees, however, are issues that are addressed, but not resolved, in the paper.

The purpose of this paper is to provide a conceptual framework for both understanding the changes occurring in the financial system and analyzing the policy implications of those changes. The paper is organized as follows: in Section I, the economic and regulatory forces that are driving the evolution of the financial system are described. Then the major emerging trends are outlined in Section II. Finally, the policy implications of these changes are considered in Section III. The paper concludes in Section IV that policymakers should focus on reforming three key areas: the federal safety net, bank powers, and the payments system.

I. Forces for Change

The changes that are likely to take place in the U.S. financial system are the result of the interaction of basic economic forces with regulatory and legal constraints. In some cases, the economic forces will overwhelm these constraints; in other cases, regulatory and legal forces will dominate.

Economic Forces

The following primary economic forces appear to be at work today. First, electronic information processing is reducing the cost of gathering, managing, and transmitting the data required to produce financial services. This trend not only makes it possible to provide certain traditional financial services at reduced cost but makes new financial services feasible, thereby altering ways of raising and investing funds. Moreover, the effect of technological change is amplified by the rising demand for time-saving innovations, such as certain integrated financial services, and devices that improve access to retail funds balances, such as ATMs and point-of-sale terminals.

Second, the growth in wealth and the level of commercial activity worldwide is increasing the number, size, and complexity of transactions in financial markets. The changing nature of transactions, in turn, is stimulating the demand for sophisticated financial services.

Third, greater volatility in interest rates, exchange rates, and asset prices is expanding the demand for ways to manage risk. Not only is it increasing reliance on specific risk-management products, as exemplified by the growth of options and futures markets, but also the complexity of traditional financial instruments. Moreover, widespread loan losses in recent years have heightened the need for risk management and diversification within institutions.

Legal and Regulatory Forces

The present financial system has in place extensive legal and regulatory structures to promote the stability of the banking industry and the payments mechanism and to facilitate the conduct of monetary policy. To the extent that these structures conflict with private economic incentives, the private market will attempt to take advantage of or avoid them. As a result, our system of laws and regulations itself is a force for change in financial markets.

The first, and perhaps most important, example is the effect of the federal safety net on bank behavior. Underpriced deposit protection gives banks and thrifts incentives to reduce equity capital and to expand the scope of insurance coverage. Similarly, nondepository institutions may seek to own depository firms in order to raise insured funds.

A second force for change is reserve requirements. It has been argued that reserve requirements are needed for monetary policy purposes. Yet the requirement to hold noninterest-earning reserves against transactions deposits, together with the prohibition on the payment of explicit interest on demand deposits, provides incentives to create functionally similar instruments, such as overnight RPs, that arbitrarily increase activity in the payments system.

A third regulatory force for change is the system of legal restrictions on the ownership and powers of banking firms, which is particularly cumbersome at a time when nonbanking firms are expanding rapidly into the provision of many banking services. Geographic restrictions facing banking firms also are affecting industry structure by shifting activity away from traditional banks.

Fourth, payments system policies affect not only the level of risk in the payments system but also the structure of the financial services industry. The absence of real-time settlement and mechanisms to price intraday credit extended by the Federal Reserve arguably contribute to the level of payments system risk. The exclusion of nondepository firms from access to the payments system may be inducing commercial enterprises to buy depository institutions in order to gain the access they desire.

Finally, regulatory, tax, and other policies vary across countries (and in some instances, states) even for the same class of institution. These international (and interstate) differences affect not only the locus of financial activity, but also the ability of any one government or agency to pursue policies that ensure prudent practices in the financial system. However, the recently proposed agreement between U.S. and British banking authorities is an important step in the attempt to internationalize supervision and regulation.

II. Emerging Trends

Several key trends are emerging from the economic, technological, regulatory, and legal forces affecting the U.S. financial system. These include trends toward direct placement and securitization, functional realignment in the provision of financial services, expanded access to the payments system, and geographic integration of financial services and markets. They are described below.

Direct Placement and Securitization

Increasingly, borrowers are placing debt securities directly with investors and relying correspondingly less on traditional financial intermediaries — most notably, commercial banks — as a source of funds. This rise in direct placement is the outcome of a number of underlying economic forces, as well as constraints, imposed by the current financial regulatory framework. Growth in the sheer size of transactions, together with the declining costs of transmitting credit information and effecting transactions, have made direct placement cost-effective for an increasing number of transactions.

Historically, banks have enjoyed cost-advantages in evaluating a given borrower's creditworthiness and in taking on interest rate, liquidity, and credit risks. As a result, financial intermediation through the use of two instruments — a deposit liability and a loan asset — with the bank as a party to each has been more economical than direct dealings between borrowers and investors. Today, however, banks' cost-advantages in executing intermediation functions are diminishing. The declining cost of technology permits the sale of credit information by various rating services and, in one sense, even by banks themselves through the issuance of standby letters of credit. The effects of declining information costs are especially evident in the shrinking share of large and middle-market corporate borrowers that continue to rely on banks as their primary source of funds. More of these borrowers now obtain Moody's or Standard and Poors' ratings in conjunction with standby letter of credit backing to enable them to raise funds directly in the commercial paper and bond markets.

In addition, the rapidly growing depth and liquidity of futures and options markets enable investors to manage interest-rate risk inexpensively and directly, thereby reducing the relative cost advantage that banks traditionally have enjoyed. Similarly, secondary markets for a broadening array of primary securities provide a growing source of liquidity which, in the past, only banks were able to provide economically. Finally, pension funds, tax-sheltered savings plans, and money market and bond mutual funds now offer numerous channels to satisfy the diverse denomination requirements of borrowers and investors. In fact, money market mutual funds continue to hold over $250 billion in assets even though banks no longer are subject to interest-rate ceilings on most deposit products. As a result of these developments, financial market participants can now purchase — in relatively small denominations — their desired mix of liquidity, credit, and interest-rate risks directly, without having to turn to the banking system in the traditional sense.

In addition to the economic forces favoring direct placement, regulatory constraints continue to make intermediation by depositories less attractive than otherwise. Reserve requirements, in particular, raise the cost of attracting reservable funds. Moreover, the decision of bank regulators in recent years to require banks to maintain higher minimum (book) capital-to-asset ratios probably is raising the effective cost of holding assets in portfolio. With underpriced deposit insurance, it generally has been more profitable for banks to raise insured deposits than to raise capital to fund loans.

As a result of these economic forces and regulatory constraints, banks increasingly have been shifting to so-called off-balance-sheet activities. In recent years, for example, banks have offered standby letters of credit (for a fee) to back debt securities of prime issuers rather than funding loans to those issuers. By assuming these contingent liabilities, banks can increase their effective leverage without actually violating formal capital requirements. In effect, the implicit government protection of large institutions encourages their entry into the growing market for financial guarantees. Approximately 15 percent of all commercial paper and 29 percent of newly issued municipal bonds now have some form of financial guarantee as backing.[1]

Because banks retain some comparative advantages in evaluating the creditworthiness of smaller businesses and households as well as in servicing debt obligations, they continue to originate loans but are selling and then servicing an increasing number of them. Similarly, banks are "securitizing" loans (that is, pooling and using them as security for marketable debt instruments that are sold outright to investors). In addition to residential mortgage loans, which were first securitized in 1968, commercial mortgages, automobile finance loans, and credit card receivables are also being securitized now. For many of these products, the rate of growth of the derivative security far exceeds the growth rate of the underlying asset. For example, residential mortgage backed securities grew by 155 percent over the past five years, while real estate loans in bank and thrift portfolios grew by only 24 percent.[2]

Clearly, the trend is for banks to take on the role of broker, or even underwriter, to facilitate transactions in the primary market. However, banks still will function as traditional intermediaries, as most will continue to hold loans in portfolio, particularly loans to borrowers whose creditworthiness is relatively costly for the market to evaluate or whose funding needs are not standard.

Functional Realignment

Economic forces such as the demand for greater convenience in financial services, the declining cost of effecting transactions, and the growth of securitization and direct placement are causing a breakdown in institutional specialization. Commercial banks, thrift institutions, securities firms, insurance companies, and other types of financial and nonfinancial companies increasingly are offering products that overlap their traditional markets. Although these developments do not necessarily portend full-scale integration of financial service firms, they do suggest that the old institutional boundaries governing firms' activities are breaking down and that a realignment of the types of services each firm chooses to provide is taking place.

For wholesale commercial banks and investment banks serving the needs of the corporate sector, this process of realignment is especially apparent. For commercial banks, the push towards investment banking is a logical extension of their expertise in lending as their corporate borrowers rely more and more on direct placement. By the same token, investment banks believe that their ability to offer certain commercial banking services would be advantageous. For example, investment banks want to be able to offer payments services and to settle transactions directly because doing so themselves is more efficient and profitable than obtaining the same services from commercial banks.[3]

So far, nonbank firms have been more successful at circumventing barriers than have commercial banks simply because they are regulated less extensively. Technically, regulatory and legal restrictions on the ownership of commercial banks prevent nonbank firms from offering banking services. However, through such innovations as checkable money market mutual funds and cash management-type sweep accounts, nonbank firms now offer services that are functionally similar to commercial banks' payments and deposit services. Moreover, with the expansion of thrift institutions' lending, payments, and deposit-taking powers, the ownership of nonbank firms (which is not restricted in the same way as commercial bank ownership) confers many banking powers. Likewise, the innovation of nonbank banks, which skirt the legal definition of a commercial bank by offering only commercial loans or demand deposit services but not both, will enable nonbank firms such as Merrill Lynch to offer banking services.

While nondepository firms are now able to offer virtually the full range of banking services — albeit, less efficiently than through outright ownership of commercial banks — banks are trying to broaden their nonbanking activities. To a certain extent, regulators are accommodating these pressures. Bank regulators have expanded permissible activities to include credit-related insurance, discount brokerage, (limited) securities underwriting, data processing, financial planning, and investment advisory services. Moreover, regulators now sanction bank holding companies' purchases of failing thrift institutions, thereby expanding the opportunities for those banking organizations.

For the most part, regulatory accommodation still does not allow banks the degree of freedom that nonbank firms have. In particular, commercial banks are prevented from underwriting the vast majority of municipal debt and all domestic corporate debt and equities. Where they are not as constrained by Glass-Steagall restrictions, large commercial banks underwrite a significant and growing proportion of securities in international capital markets, including interest rate and currency swaps. (There are, however, limitations on the amount of corporate debt and equity underwriting they can do even in foreign markets.[4])

Expanding Access to Payments System

Many of the forces that are encouraging realignment in the provision of financial services also are motivating nonbanks' desire for access to the payments system. In particular, the increasing integration of payments and securities activities and the trend towards direct placement are making direct access to the payments system more valuable than in the past. Also, the high and volatile interest rates of a few years ago induced corporations and households to invest in more sophisticated cash management technology, which they continue to use even in the current lower interest rate environment. The use of such technology makes direct access to the payments system for the purposes of consolidating and investing idle balances especially attractive. Such forces are behind brokerages' cash management accounts and the establishment of nonbank banks by brokerage firms.

Combined with these economic forces are several regulatory constraints that encourage the use of alternatives to bank-provided payments balances. Noninterest-earning reserves and the prohibition on the payment of explicit interest on demand deposits raise the effective cost of using demand deposits to settle transactions. As a result, corporations in particular employ cash management techniques that minimize such balances. Their actions, especially those related to the overnight RP market, undoubtedly are part of the explanation for the extraordinary volume of transactions over Fedwire, the Federal Reserve's electronic funds transfer network.

Nonbank firms traditionally have been denied direct access to the payments system in general, and to Fedwire in particular, because of concerns about increased payments system risk. However, as noted above, ownership of thrifts and nonbank banks enables nonbank firms to circumvent restrictions on access and may, in time, render the current legal framework governing access to the payments system obsolete.

Geographic Integration

The growth of international trade and commerce, the integration of financial markets and payments media, and the declining cost of information technology appear to be increasing the optimal geographic scope of firms in banking and finance. As a result, there is a trend towards internationalization of capital markets and interstate provision of domestic financial services. Domestic firms of stature can now raise funds economically in the rapidly growing euromarkets. A large California utility, for example, has at times raised a significant proportion of its longer-term funding in the euronote and bond markets even though its operations are confined largely to domestic markets.

Commercial and investment banking firms are expanding their international activities not only to "follow their customers" but also to take advantage of international regulatory discrepancies. They have, for example, been attracted to the London and Tokyo markets, which recently have loosened restrictions on the activities of market participants. At the same time, domestic restrictions also are pushing U.S. financial institutions overseas. Restrictions on commercial banks' securities underwriting activities as well as reserve requirements and deposit-rate regulations, for example, have induced U.S. banks to shift business to international markets where they can avoid domestic regulations.[5]

The trend towards interstate provision of domestic financial services is even more pronounced.[6] Banks are seeking to establish regional and even national deposit-taking networks to broaden and diversify their core deposit, financial services, and lending bases and to provide customers engaged in interstate transactions with improved access to the payments system. Regulations already have accommodated these forces to a large extent, although perhaps not in the most economical way.

Through holding company subsidiaries, banks and thrifts now can perform virtually all banking functions across state lines except deposit-gathering. (With the advent of brokered deposits and nonbank banks, they are not fully constrained even in this last area.) Moreover, individual states are now accommodating interstate entry. Thirty-seven states have passed legislation permitting entry by banking firms located out of state. Eighteen of those states permit, or will soon permit, entry by banks headquartered anywhere in the country.

III. Implications and Issues

These developments raise a number of public policy concerns. First, the present approach to regulation of the financial system encourages an inefficient use of resources. For example, resources are devoted to discovering and exploiting loopholes in the current legal and regulatory system. More importantly, the result of this process is a structurally inefficient financial industry that is characterized by a proliferation of new instruments, transfer of traditional banking activity to nonbanks, and payments volumes that are excessive in relation to economic activity.

Second, without deposit insurance reform, the expansion of financial activity of banks or the integration of financial and commercial activities may lead to an undesirable propagation of the deposit insurance subsidy. One concern, for example, is that a stressed nonbank affiliate might draw financial support from the bank, endanger the bank, and indirectly be supported by the deposit insurance fund.

Third, the growth of international financial centers and of unregulated firms' involvement in the provision of financial services implies diminished federal supervisory leverage over financial activity that may be essential to financial stability. Diminished supervisory control is particularly troublesome in light of concern about the potential for undesired or unintended *de facto* extension of the federal safety net.

The current legal, regulatory, deposit insurance, and payments frameworks are inadequate for addressing these policy concerns. Reform is needed to preserve financial stability and to accommodate a changing financial environment. However, such reform must balance the benefits from enhancing stability against the costs. For example, stability could be enhanced (in the short run) if deposit insurance were extended to every financial firm. Absent deposit insurance reform, however, such an approach would distort risk-taking decisions (or require a vast expenditure of supervisory resources to prevent the distortion).

Since it is not feasible or desirable to insure every firm or activity, we must decide what truly needs to be protected. Although the extent of insurance coverage is a subject of intense debate, nearly all agree that protection of transactions balances (whether held at commercial banks or at nonbanks) is essential.[7] Also, because many observers are concerned that a serious contraction in the availability of intermediated credit from depository institutions could have destabilizing consequences, there also is a view that a significant part of all nontransactions balances needs to be protected as well.[8] At the same time, however, there is the concern that this protection not extend too far. Clearly, we must not protect the owners of credit-granting intermediaries from the consequences of their decisions lest we run the risk of excessive risk-taking on their part.

Although the question of what ought to be protected has no simple answer, most observers conclude that both the payment and credit intermediation functions of depositories need partial, if not fairly extensive, protection. Many of the issues discussed below regarding the structure of the deposit insurance system, the boundaries of bank powers, and the operation of the payments system are predicated on this conclusion. The conclusion itself, however, is open to debate.

Deposit Insurance and the Federal Safety Net

Our present deposit insurance system actually has performed remarkably well over the last fifty years. Although there have been runs on individual banks, spillover effects have been limited and there have not been any banking panics at federally insured institutions. In addition, payouts from insurance funds were very modest prior to the 1970s.

More recently, however, many observers have begun to question the viability of the system in the wake of a record number of bank failures, the large foreign debt exposures of the money center banks, and the well-publicized problems of the FSLIC. One can argue that some of the recent problems stem from an implicit (and at times, explicit) extension of the federal safety net well beyond the stated coverage of deposit insurance. One might even say that the safety net has been spread so thinly it may soon tear. Moreover, because the current system relies so heavily on supervision and regulation, it has become increasingly unable to accommodate the market forces and trends enumerated above.

The Status Quo

It is now widely recognized that the current deposit insurance system introduces a moral hazard; that is, it gives insured institutions an incentive to take on excessive risk. The combination of flat-rate premia unrelated to risk, possible coverage of all deposit and nondeposit liabilities (at least at large banks), and a willingness to let insolvent banks and thrifts continue to operate has seriously undermined the discipline on risk-taking that would otherwise be imposed by the market.[9]

As a result, regulation and supervision bear the main burden of limiting risk-taking. However, should the implied protection of deposit insurance continue to expand, the prospects of containing bank risks with supervision and regulation would dim and leave the government to underwrite risks for larger and larger segments of the economy. Thus, reform of the deposit insurance system is central to and a prerequisite for financial reform. Indeed, it may be needed just to deal with the current economic environment, as exemplified by the problems of the savings and loan industry and its insurance fund.

Approaches to Reform

There have been many proposals for reforming the deposit insurance system. Some involve restricting the explicit or implicit scope of deposit insurance coverage while others seek to "reprice" insurance to reduce the moral hazard problem. Below, the pros and cons of various alternatives are discussed.

Reducing the Scope of Deposit Insurance

Perhaps one of the oldest reform proposals dates back to Henry Simons' 1948 proposal for 100 percent reserve banking as modified by Milton Friedman in 1959 to include the payment of interest on reserves.[10] This idea, which in essence has been revived by Robert Litan and John Kareken among others,[11] would turn banks into institutions similar to money market mutual funds — that is, banks' liabilities would be used to fund only safe assets, such as short-term government securities, cash, and reserve balances at the Federal Reserve.

If banks were required to back their liabilities with only "perfectly safe" assets, they could not fail. Moreover, no restrictions on the ownership of such "eunuch" banks would be necessary since there would be no opportunity for the bank to support failing nonbank affiliates. (The bank's deposit liabilities would be used to fund only safe assets and not to fund any form of credit to affiliates, including intraday payments credit.) Under these conditions, which imply complete legal and economic separation of the bank from nonbank affiliates, the failure of a nonbank affiliate could not impair the bank. Of course, if banks held assets that were "fairly," but not perfectly, safe and were allowed to extend credit to subsidiaries, or to lend their "good name" to the subsidiaries in a way that implied legal liability, then the problems of controlling the risks undertaken by a diversified conglomerate would arise.

Implicit in this "safe assets" approach is the notion that deposit insurance should protect only the payments system or payments-related balances. In fact, under this proposal, meaningful credit intermediation would take place only in uninsured financial institutions or subsidiaries similar to current-day banks in most respects except for their inability to offer insured pure transactions accounts. Although uninsured intermediaries presumably would take on fairly conservative risk postures, they probably would still use short-term liabilities to fund risky, longer-term loans to some degree and thus could be subject to problems with depositor runs. These runs have the potential for destabilizing the credit system. Thus, although the safe assets proposal might provide adequate protection for the payments function of depositories, it would offer no protection for credit intermediation.

Another approach to limiting the scope of deposit insurance focuses on explicitly restricting the payouts made to depositors to encourage depositor surveillance of depositories' risk-taking. Traditionally, the insurance system has restricted payouts by fully insuring each deposit only up to some maximum amount. But other approaches could be taken, such as also explicitly insuring a given percentage of deposits above the maximum amount. Of course, to be meaningful, maximum insurance coverage would have to be enforced strictly and uniformly for all failed banks *and* "assisted" mergers that expose the insuring agency to losses.

The FDIC's "modified payout" proposal would work well in this context if it were applied uniformly to "purchases and assumptions" as well as to "payouts." If this were done, deposits not fully insured would be subject to an immediate markdown and might never be fully repaid. (Under the experimental modified payout plan, uninsured depositors of some *closed* banks received only a prorated portion of the estimated value of the failed banks' assets immediately. Uninsured depositors of such failed banks could receive additional payments if, upon disposal of the assets, the realized value exceeded the FDIC's estimate. The actual plan, however, did not shift losses to depositors if a "failed" bank were handled through a purchase and assumption.)[12]

Increasing depositor surveillance through these avenues would reduce *ex ante* risk-taking because uninsured depositors would require premium rates for the riskier institutions and the threat of a run by depositors would induce institutions to operate prudently. Over time, the level of supervision and regulation could be scaled back, although there would be a need for *more* public information about the conditions of banks. Both of these developments would accommodate the natural evolution of the financial system. However, the proposal provides little protection against runs by uninsured depositors. To the extent that one believes that runs by uninsured depositors are potentially destabilizing to the financial system, as apparently was the view of regulators in the episode involving the failure of Continental Illinois in 1984[13], proposals of this nature do not offer sufficient protection.

In sum, limiting the scope of deposit insurance, either by limiting the functions of insured institutions or by limiting insured deposit coverage, could reduce or eliminate the moral hazard implicit in the current deposit insurance system. However, these proposals would increase the potential for credit runs that could destabilize the financial system. An alternative approach to reform is to maintain fairly broad insurance coverage of the payments *and* credit functions of financial intermediaries while "repricing" that coverage to reduce the moral hazard.

Repricing Deposit Insurance

The most obvious way to reprice deposit insurance is to charge an insurance premium that rises with the *ex ante* risk of the insured institution's portfolio. This is a sound concept because it would penalize bank equityholders for excessive risk-taking and thus would internalize the costs of risk-taking along with the benefits.

In practice, however, this proposal could prove extremely difficult to implement because it would require charging an insurance premium based on examiners' assessments of the *ex ante* market values and risks of a bank's portfolio of assets, many of which are not traded or readily marketable, as well as judging the risks and potential profitabilities of its non-portfolio activities. Moreover, to have a significant impact on *ex ante* risk-taking, examiners' risk assessments would have to look well to the future, and premia might have to be adjusted fairly dramatically on the basis of subjective risk assessments. (The FDIC's legislative proposal to double the annual premium to one-sixth of a percent of deposits for banks in the high-risk category would not be sufficient to deter risk-taking.)

A second method of internalizing risk requires that insured institutions be closed before the market value of their equity could fall below zero. If this could be accomplished without error, a closed institution's assets necessarily would be sufficient to discharge its liabilities at the time of liquidation. As a result, failed (that is, closed) institutions would not impose losses on the insurance fund. Instead, bank equityholders would bear the full costs and benefits of their decisions and would have no incentive to take excessive risks.

Moreover, as long as depositors were confident that regulators would be successful in closing banks before the market value of equity became negative, and thus assure them of protection from losses, they would not run on a "troubled" bank. In this manner, it would be possible, in concept, to protect deposits and prevent runs while simultaneously confining risk to bank equityholders.

To be effective, however, this approach would require increases in both the scope and frequency of federal supervision of insured institutions to monitor the market values of their equity closely. One major practical difficulty in increasing supervision lies in assigning accurate market values to non-traded assets and liabilities. Such valuation might be even more difficult if banks took on added powers or acquired commercial firms. Another difficulty is the lack of legal authority for the insuring agency to require chartering agencies promptly to close institutions deemed insolvent on the basis of a market value assessment of equity.

As a result, any practical implementation of this approach would have to allow for errors in closure. If depositors believed a bank might be closed too late, for example, they would run unless they could be assured that losses would be covered by a third party, such as subordinated debt holders and/or the deposit insurance fund. (To be effective, subordinated debt should be perpetual and subordinated to both bank deposits and the insurance fund.)

There are other ways of accommodating errors in assessing market values. One would be to give regulators the authority to err on the safe side either by closing a bank that might still have a positive market value of equity or by requiring the bank to increase its equity to reduce the risk of *ex post* uninsured depositor or insurance fund losses. Although politically impractical today, yet another method would be to hold bank equityholders liable for losses exceeding their original capital, as was the case prior to the 1930s, when stockholders of nationally chartered banks were liable for losses up to twice the par value of the stock owned.

The implementation of prompt market-value closure would raise many political problems, especially during a transitional period. For example, the closure of institutions that are currently insolvent would raise major problems for the FSLIC, and possibly even the FDIC. However, these are the very institutions that now pose the gravest threat to the insurance funds. Nevertheless, it would be possible and desirable to move closer to market-value accounting and closure rules. Moreover, once insured institutions adjust to a truly unforgiving closure policy, they would voluntarily hold more capital in relation to the riskiness of their portfolios to reduce or eliminate the risk of being declared insolvent.

The current risk-based capital proposal, which requires banks with more risky assets and off-balance sheet activities to hold more capital, can be considered a step in the same direction. Such proposals, however, will succeed in eliminating or reducing the moral hazard in deposit insurance only if they help to ensure that insured institutions maintain a positive *market* value of capital over a wide range of possible *ex post* outcomes. Since riskier assets have a higher probability of declining in value, requiring additional capital for these assets *ex ante* increases the probability of a positive market value *ex post*.

Like a scheme of risk-based deposit insurance premia, a true risk-based capital approach would require *ex ante* estimates of the value and riskiness of each type of asset as well as its contribution to the overall riskiness of the portfolio. However, an approach requiring banks to hold additional capital (even if based on a fairly crude assessment of risk) probably would be easier to implement and less likely to generate errors that cause major distortions than a system of risk-based deposit insurance premia.

In sum, there are practical and political problems with each of the approaches to insurance reform described. But if we wish to maintain deposit insurance coverage that is as extensive as what we have now, reform is necessary. The optimal approach probably will involve a blend of reforms.

Bank Powers

At the heart of the conflict between the natural evolution of the financial system and the legal and regulatory structure governing that system is the issue of bank powers. The current restrictions on bank ownership and powers, enumerated in the Glass-Steagall and Bank Holding Company Acts, stand in the way of the trend towards functional realignment in the provision of financial services. While market forces will foster the development of alternatives to bank-provided payments and credit services, these alternatives may not be the most efficient from society's perspective.

Specifically, preservation of the current restrictions on bank powers will cause financial activity to continue to shift away from banks to nonbank banks, thrifts, and investment banks. This shift implies both a relative decline in business transacted by banking firms and a rearrangement of activity within the corporate structure of bank holding companies. Failure to resolve the nonbank bank issue will lead to a decline in the value of the traditional commercial bank charter, and may even cause banking firms to shift activities to nonbank subsidiaries. In fact, one bank consulting firm has advocated a corporate restructuring dubbed "double de-banking" in which the bank holding company relinquishes its commercial bank charter in favor of a nonbank bank charter (to retain payments system access) while placing all of its other financing, underwriting, and loan servicing activities in separate nonbank subsidiaries.[14]

The basic conflict between economic forces and regulation extends beyond domestic markets. As activity continues to shift to less-regulated international centers, bank regulators will find themselves regulating and supervising a shrinking share of total financial activity. To the extent that the quality of supervision deteriorates because of the difficulty of supervising an international banking organization in its entirety, the stability of the financial system could be threatened. These challenges to supervision could be overcome, in part, by coordinating supervision and regulation in the world's three most important financial centers — New York, London, and Tokyo. The U.S.-U.K. risk-based capital proposal is a first step. Nonetheless, because of restrictions on domestic banking powers, there remain strong incentives to shift activity toward less regulated environments.

Resolving the bank powers issue requires careful balancing of disparate concerns. On the one hand, because federal oversight and protection of some portion of financial activity is essential to stability, regulation must not be so at odds with market forces that important financial activities shift away from federal control. On the other hand, because the provision of a federal safety net creates incentives for excessive risk-taking, some minimum level of regulation, or at least supervision, is necessary.

Separation of Powers

Before we consider the extent to which bank powers ought to be expanded in response to market pressures, it may be useful to reconsider the original rationale for separating banking from other financial services and from commerce. Of primary concern to legislators in the 1930s were the problems associated with concentration of resources and the potential for self-dealing. Such problems have been addressed, with varying degrees of success, in other countries without completely separating banking and securities markets.[15] Moreover, since the 1930s, the problems may have been mitigated to some extent in the U.S. by SEC regulations and surveillance. Likewise, antitrust restrictions should serve to prevent excessive concentration and anti-competitive behavior. Finally, if greater integration of financial services were allowed, the concentration of total financial resources might increase, whereas the concentration for particular services actually might decrease because a wider variety of firms would be providing them.

Unlike the 1930s, a key concern regarding bank powers today is the possibility that banking organizations would shelter additional activities under the federal safety net. For this reason, some have argued against expanding the powers of banking organizations, while others have argued that new powers be carried out only in separate subsidiaries. Most observers agree, however, that the type of corporate separability that we have today is not very likely to insulate the bank from losses of a nonbank affiliate in times of stress.[16] Truly effective corporate separateness might require completely separate identities for the bank and nonbank affiliates, separate boards of directors, and severe limitations on inter-affiliate transactions. Such an approach might severely restrict or even eliminate any potential synergies the consolidated organization otherwise might enjoy.[17]

There is yet another view on the bank powers problem. Reform of the deposit insurance system to reduce its risk-taking incentives would make it easier to expand bank powers in response to market forces. With fewer limitations on bank powers, there would be less incentive for financial activity to shift away from federally supervised institutions.

Expand the Financial Powers of Banks

Along with a program for meaningful insurance reform, two broad reforms of bank powers might be considered. First, we might consider expanding the financial powers of banks. In other words, banks might be allowed to underwrite and trade securities, underwrite and sell insurance, manage mutual funds, and offer other financially related services. This approach would accommodate the trend towards functional realignment in the provision of financial services. It also would enhance the efficiency of the financial system by, among other things, enabling banks both to originate underlying assets and then to underwrite and sell derivative securities.

This approach may require increased surveillance of the activities of the consolidated enterprise since it increases a bank's opportunities for risk-taking. Such surveillance need not be a major stumbling block, however. In other countries where greater integration of financial services is allowed, regulators apparently have been able to supervise the activities of financial conglomerates.[18] Of course, such supervision may be easier to carry out in countries where there is only a handful of large banks.

Expand the Commercial Powers of Banks

A second general approach to the reform of bank powers would be to expand both the financial and commercial powers of banks. This approach would enable banks to own and control commercial firms and *vice versa.* Concerns regarding increased concentration of corporate control could be resolved through ownership limits, as have been established in West Germany, to prevent banks from exercising too much influence over the economy.

Once again, however, expanding bank powers in this way could complicate the assessment of the risks borne by the deposit insurance system. For example, the pressure to lend to troubled "house" firms may increase affiliate banks' risk unless federal supervisors can evaluate the soundness of all inter-affiliate transactions. (Alternatively, bank regulators could ban all inter-affiliate transactions, but if the ban were effective, it would severely reduce the benefits of conglomeration.) Reform of the deposit insurance system would, in theory, reduce the problem of increased risk. In practice, however, fully effective reform rests on the ability of regulators to monitor the market value of the consolidated enterprise — a difficult task, at best.

Given these difficulties, it is debatable just how far we should proceed in the direction of allowing banks to affiliate with commercial firms. One advantage of such affiliations would be the reduction of risk through the conglomeration of dissimilar activities. However, the operating synergies between banking and commerce do not appear to be great. Instead, there is some evidence that commercial firms are seeking banking powers primarily because they desire access to the payments system and wish to take advantage of related marketing synergies. If this were true, one way to resolve the issue of integrating banking and commerce would be to grant nondepository firms access only to the payments system provided they collateralized their transactions.

The Payments System

The major trends enumerated here bear importantly on the functioning of the payments system. Increased financial activity, securitization, and internationalization of markets presage a growing payments volume. There is legitimate concern that these trends may increase both the possibility and consequences of losses arising from a payments system malfunction or from the failure of a major participant in the system.[19]

In a payments system that uses the creation and extinction of credit to facilitate payments activity, such failures can generate liquidity problems for participants. With highly interconnected payments flows that rely on credit, a single failure can cascade into liquidity problems throughout the payments network. One of the functions of a central bank, of course, is to provide liquidity to sound institutions in such circumstances. However, central bank payments system policy should not imply protection against insolvency or even encourage frequent use of the emergency liquidity facility.

The Status Quo

The consequences of maintaining current payments conventions in light of anticipated growth trends in the volume of payments are worth considering. The payments system now entails underpriced intraday credit, delayed settlement, and access that is limited to depository institutions.

Underpriced intraday credit arises in several ways. First, the Federal Reserve encourages use of intraday credit by not charging for daylight overdrafts. Although the Fed is charging an implicit price on very large intraday credit activity as the result of a policy of limiting daylight overdrafts, it does not price most intraday Fed credit. Second, the Federal Reserve does not charge for the default risk it assumes by offering finality of payment on Fedwire. Thus, receivers of funds on Fedwire are not a potential source of discipline in the payment-credit decision. This distribution of risk differs from that of private networks where the provisional nature of transactions makes receivers evaluate the creditworthiness of payors.

Finally, some argue that there are externalities associated with payments activity that lead to the underpricing of a credit associated with payments even on wholly private networks. In particular, they argue that individual payments are transacted in ignorance of the burden that would be imposed on others should that transaction fail. If this view were correct, private charges for payments credit would be lower than the social cost of that credit. This and other causes of underpriced payments credit encourage the use of intraday credit that may be too large from the viewpoint of economic efficiency.

The delayed settlement feature of present day private payments systems adds to the concerns raised by underpricing. Delayed settlement increases the chances that an adverse event will nullify transactions that have already taken place. As payments activity grows and the interconnectedness of the payments system increases, some argue that the likelihood of such disruptions will increase. Combined with excessive use of payments system credit because of underpricing, this additional concern raises the risk of coincident liquidity or solvency problems for participants that could, in turn, precipitate a general loss of confidence in the payments system.

Although intervention by the central bank should be able to protect the economy from such liquidity problems, such intervention is not costless and, if performed frequently, could create additional incentives for risk-taking, particularly if the intervention extends beyond providing liquidity to ensuring solvency. Thus, the problem of excessive payments system risk — like excessive risk-taking in other facets of banking — is a serious concern of current payments system policy.

The third feature of concern in the current payments system is access that is limited to depository institutions. Nonbank institutions have been overcoming the limitation through thrift and nonbank bank ownership. In addition, nondepository firms are using sweep-type arrangements to provide payments services to their customers. These arrangements, however, may affect the size and timing of payments activity in an undesirable way from the standpoint of payments system risk. For these reasons, payments system access is of increasing concern whether or not there is a change in explicit access policy.

Pricing Fed Credit

Further progress toward the pricing or rationing of intraday Federal Reserve credit would remove a major stimulus to the overuse of intraday credit, both on Fedwire and on private wholesale networks. These additional steps should be taken despite issues raised by Federal Reserve payments queues and computer malfunctions, although improvements in these areas should be made in conjunction with pricing efforts.

Ideally, intraday credit pricing would embody not only the time value of funds, but also the value of the default risk implicitly assumed by the Federal Reserve in granting finality of payment on Fedwire. This approach would simulate the discipline exerted by receivers of funds in the private intraday credit market, and reduce the direct credit risk to which the Federal Reserve System would be exposed.

With a positive price for intraday credit, overall use of such credit would decline. In the short run, this decline may retard the growth of activities that have become reliant on underpriced intraday credit, such as churning in the securities market and the corporate cash management process generally. It is not clear, however, that the current level of payments activity (involving daily flows of $1 trillion or more) is efficient, whereas it *is* clear that the current system induces inadequate credit evaluation. The latter increases the risk of payments failure on private networks, or, alternatively, the risk to the Fed on Fedwire.

Pricing Fedwire intraday credit presumably would push more payments activity into the private credit market. Although such a shift might increase risk in the private market, funds receivers in the private market do have an incentive to monitor and control their risk exposure. Private bilateral payments decisions, however, may not automatically take into account the total "social" credit risk involved. Reduction of this risk requires surveillance by the appropriate regulators and the principal participants in private payments networks. Such surveillance may require minimum participant capital (or liquid reserve) requirements, net debit limits, or other risk-limiting devices such as those currently employed by private intraday credit systems such as CHIPS and Euroclear.

Analogous to charging interest on intraday overdrafts, interest also should be paid on positive balances. Symmetry in the treatment of borrowing from and lending to the Federal Reserve System would improve the functioning of the private intraday credit market. It also would decrease Fedwire congestion associated with attempts to maintain minimum required reserve balances at the end of the day, and would enhance the attractiveness of holding corporate demand deposits at banks (which also should be allowed to yield explicit interest).

Real-Time Settlement

In addition to providing better management of risk in a delayed-settlement environment, an increased price for intraday credit will encourage a transition toward "real-time settlement" whereby both monitoring of positions and matching of payments flows will occur on a continuous basis. A payments system should be a credit system only if it is more efficient to bridge temporal gaps between the payment and receipt of funds through borrowing than through expending resources to make transactions synchronous. Under the current system, borrowing and *asynchronous* payments are favored.

With costly intraday credit, participants will seek the means to synchronize transactions and settle obligations in "real time." For example, repayment of funds borrowed overnight will be more closely matched in time with funds inflows that reflect borrowing for the next night. Such operations, if exactly matched in time, will reduce overdraft exposure by substituting a relatively small net transfer (the difference between the two borrowings) for two gross transfers mismatched in time.

Real-time settlement is becoming increasingly feasible as communications and electronic accounting technologies advance. Since real-time settlement eliminates, by definition, temporal risk in the payments system, the evolution toward real-time settlement will contribute significantly to reducing payments system risk. Many transactions may be quite costly to settle in real time, of course, and the payments system will continue to involve credit extension to some degree. However, as around-the-clock and global securities trading progresses, the importance of managing temporal risk will mount, and real-time payments technology increasingly will be needed to manage risk economically.

Finally, by resolving the problems of underpriced intraday credit and delayed settlement, there would be less need to continue to limit access to the payments system. An orderly expansion of payments system access, in conjunction with these other reforms, likely would not pose undue risk and would resolve the problems created by non-depository firms exploiting various loopholes in the current policy.

IV. Summary and Conclusions

A financial revolution is underway. Already we see glimpses of the new financial world in the forms of increased securitization, a diminished role for bank-provided intermediation, functional realignment in and geographic integration of financial services, and expanded access by nonbank firms to the payments system. These are trends driven both by fundamental economic forces and attempts to circumvent regulation and to exploit government guarantees.

Many of these changes have not resulted from explicit policy choices. While most would admit that a thorough reform of financial regulatory and legal policy is long overdue, the continuing debate over just what changes are necessary apparently has paralyzed the policymaking process.

Although there are no easy or simple solutions, the time has come to move forward because failure to make the needed changes may threaten financial stability. Three areas are especially in need of thorough reform: the federal safety net, the payments system, and bank powers.

The major problem with our current deposit insurance system is that it provides an incentive for excessive risk-taking, which could propagate throughout the economy as distinctions between banks and nonbank firms diminish. Without changes in the insurance system, the government could be left underwriting the risks of an ever-increasing share of the economy.

Similarly, the implicit government guarantee behind the payments system may prove to be unsustainable in the face of rapid financial innovation. Underpriced intraday credit in conjunction with delayed settlement appears to be a major part of the problem. Without reforms in these areas, expanded payments system access poses further risks.

Finally, banks are experiencing economic pressures to expand into nontraditional activities. A major reason for preventing them from doing so is to protect the deposit insurance and payments guarantees. However, many observers question whether the U.S. banking industry will be able to compete effectively if it continues to be regulated more stringently than domestic nonbank firms and banking firms in other countries.

Clearly, market forces for change are posing serious challenges to the current financial regulatory framework and safety net. By reforming the legal and regulatory framework to accommodate these forces and to encourage more market discipline of risk-taking, we can move toward a more efficient and stable financial system. Undoubtedly, a blend of many of the approaches touched upon here will be needed to reach these goals.

FOOTNOTES

1. Summary of the Results of the August 1985 Senior Loan Officer Opinion Survey on Bank Lending Practices conducted by the Federal Reserve System.

2. Source: *Federal Reserve Bulletin,* various years. Additional sources on securitization are: Christine Pavel, "Securitization," *Economic Perspectives,* Federal Reserve Bank of Chicago, July/August 1986; and Randall Pozdena, "Securitization and Banking," *Weekly Letter,* Federal Reserve Bank of San Francisco, July 4, 1986.

3. Michael Keeley, *"Interest on Business Checking Accounts?," Weekly Letter,* Federal Reserve Bank of San Francisco, May 2, 1986.

4. For additional information on functional realignment, see: Bank for International Settlements, "Recent Innovations in International Banking," April 1986; Alan Daskin and Jeffrey Marquardt, "The Separation of Banking and the Securities Business: A View of the United Kingdom, West Germany and Japan," *The World of Banking,* May/June 1984; Steven Felgran, "Bank Entry Into Securities Brokerage: Competitive and Legal Aspects," *Bankers Desk Reference: New Topics, 1985;* Samuel Hayes, "Investment Banking: Commercial Banks' Inroads," *Economic Review,* Federal Reserve Bank of Atlanta, May 1984; and Christine Pavel and Harvey Rosenblum, "Banks and Nonbanks: The Horse Race Continues," *Economic Perspectives,* Federal Reserve Bank of Chicago, May/June 1985.

5. See also, Bank for International Settlements, "Recent Innovations in International Banking."

6. See Donald Savage, "Interstate Banking Developments," *Federal Reserve Bulletin,* February 1987; Federal Reserve Bank of Chicago, *Toward Nationwide Banking: A Guide to the Issues, 1986;* Constance Dunham and Richard Syron, "Interstate Banking: The Drive to Consolidate," *New England Economic Review,* Federal Reserve Bank of Boston, May/June 1984; and Frank King, "Interstate Banking: Issues and Evidence," *Economic Review,* Federal Reserve Bank of Atlanta, April 1984.

7. See, for example: E. Gerald Corrigan, "Are Banks Special? A Summary," *Federal Reserve Bank of Minneapolis Annual Report, 1982;* and Michael Keeley and Frederick Furlong, "Bank Regulation and the Public Interest," *Economic Review,* Federal Reserve Bank of San Francisco, Spring, 1986.

8. Ben Bernanke and Mark Gertler, "Agency Costs, Collateral and Business Fluctuations," a paper presented at the Federal Reserve Bank of San Francisco's Fall Academic Conference, 1986.

9. For discussion of this issue, see: Frederick Furlong and Michael Keeley, "Bank Runs," *Weekly Letter,* Federal Reserve Bank of San Francisco, July 25, 1986; and Barbara Bennett, "Bank Regulation and Deposit Insurance: Controlling the FDIC's Losses," *Economic Review,* Federal Reserve Bank of San Francisco, Spring 1984.

10. Milton Friedman, *A Program for Monetary Stability,* New York: Fordham University Press, 1959; and Henry Simons, *Economic Policy For a Free Society,* Chicago: University of Chicago Press, 1948.

11. Robert Litan, "Taking the Dangers Out of Bank Regulation," *The Brookings Review,* Fall 1986; and John Kareken, "Ensuring Financial Stability," in *The Search for Financial Stability: The Past 50 Years,* San Francisco: The Federal Reserve Bank of San Francisco, 1985.

12. Frederick Furlong, "FDIC's Modified Payout Plan," *Weekly Letter,* Federal Reserve Bank of San Francisco, May 18, 1984.

13. Frederick Furlong, "Market Responses to Continental Illinois," *Weekly Letter,* August 31, 1984.

14. "Continued Inaction by Congress May Spur Banks to Drop Charters," *American Banker,* November 6, 1986.

15. Daskin and Marquardt, *op cit.*

16. See Anthony Cornyn, Gerald Hanweck, Stephen Rhoades and John Rose, "An Analysis of the Concept of Corporate Separateness in BHC Regulation from an Economic Perspective," *Appendix C. to the Statement by Paul A. Volcker,* June 1986. For an opposing view, see Samuel Chase and Donn Waage, "Corporate Separateness as a Tool of Bank Regulation," Samuel Chase and Company for the American Bankers Association, October, 1983; and Carter Golembe and John Mingo, "Can Supervision and Regulation Ensure Financial Stability?," in *The Search for Financial Stability; The Past 50 Years,* San Francisco: The Federal Reserve Bank of San Francisco, 1985.

17. Paul Volcker, "Statement Before the Subcommittee on Commerce, Consumer and Monetary Affairs of the U.S. House of Representatives," June 11, 1986.

18. Daskin and Marquardt, *op cit.*

19. For further discussion of payments system risk, see: David Humphrey, "The U.S. Payments System: Costs, Pricing, Competition and Risk," Monograph Series in Finance and Economics, no. 1984-1/2, New York: Salomon Brothers Center for the Study of Financial Institutions, Graduate School of Business Administration, New York University, 1984; David Mengle, "Daylight Overdrafts and Payments System Risks," *Economic Review,* Federal Reserve Bank of Richmond, May/June 1985; and E.J. Stevens, "Risk in Large-Dollar Transfer Systems," *Economic Review,* Federal Reserve Bank of Cleveland, Fall 1984.