

Jerome Levy Economics Institute of Bard College (Ed.)

Research Report

Restructuring the financial structure

Public Policy Brief, No. 1

Provided in Cooperation with:

Levy Economics Institute of Bard College

Suggested Citation: Jerome Levy Economics Institute of Bard College (Ed.) (1992) : Restructuring the financial structure, Public Policy Brief, No. 1, Levy Economics Institute of Bard College, Annandale-on-Hudson, NY

This Version is available at:

<https://hdl.handle.net/10419/54320>

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

Public Policy Brief

Restructuring the Financial Structure

Personal Views on Financial Reform
by Anthony M. Solomon

Fundamental Change Little by
Little: Banking Evolution
by Alex J. Pollock

Introduction
by Hyman P. Minsky

No. 1/1992

EXECUTIVE SUMMARY

Anthony M. Solomon, former President of the Federal Reserve Bank of New York, and Alex J. Pollock, President of the Home Loan Bank of Chicago, inaugurate a public policy series of the Jerome Levy Economics Institute. Their papers, presented at a Levy Institute conference on financial restructuring in November 1991, are synthesized herein.

Anthony Solomon recommends institutional and regulatory reform of the financial system by stating the need to distinguish between the ideal system and the most practical system given existing constraints. Rather than haggle about the parties responsible for the crisis in finance, it must be acknowledged that the casualty was oversight of the financial system during the 1980s.

The revealed shortcomings of the 1980s approach mandate comprehensive reform of institutional powers, rule-making structures, and supervisory arrangements. The lesson of the 1980s is that "deregulation of deposit institutions (both commercial banks and thrift institutions)—while maintaining virtually unlimited access to the extensive safety net of cheap Federal deposit insurance without forceful, independent, official supervision—was a recipe for disaster."

Even after the recent rash of financial crises (e.g. savings and loan debacle, increase in bank failures, near insolvency of FDIC, etc.), there has yet to emerge a coherent philosophy to establish basic principles on which to ground our future financial system. In emphasizing the importance of avoiding excessive concentration of economic and financial power, Solomon advocates:

- nationwide banking, "since presently there are too many banks, too many weak institutions, and there is too little profitability in banking"
- restrictions on Federal deposit insurance (resembling some "narrow-bank" proposals)
- consolidation of financial regulation
- balancing numerical standards with supervisory discretion
- increased accountability of banks' management and boards, and the imposition of sanctions as a deterrent
- "leveling the playing field across institutions, markets, and countries," necessitating comprehensive regulation across functional lines.

Although conventional wisdom suggests that busts, crashes, and crises are natural occurrences, Pollock notes the severity and scope of simultaneous problems plaguing finance in recent years. The post-war trends in U.S. finance illustrate a disturbing pattern in the ratio of capital to loans (e.g. loan leverage), the ratio of loans and assets to capital, and the unabated acceleration of asset leverage. He suggests that technology advancements, demographic changes, and other dynamics experienced by banks, S&L's, and insurance companies have not been adequately absorbed in the theoretical or practical functions of these institutions.

Pollock recommends "collateralized money," referred to as "narrow-banking" in the past few years, as the framework for the optimal banking system. While improving the nature of the banking system, this proposal does not require new charters, "breaking up of banks," or other bureaucratic measures. More importantly, though, the long-term evolution of an increasingly risky and more fragile banking system demands fundamental restructuring. Pollock declares that a better fundamental design embodies the ensuring of stable liabilities for banks and the payments system simply by enforcing collateral requirements to secure the stock of money.

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Preface

The publication of this *Public Policy Brief* could not be more timely. The American crisis in finance has drawn the attention and concern of academicians, journalists, bankers, and policy-makers since it first erupted. The Jerome Levy Economics Institute of Bard College, since its inception in 1986 as a non-partisan, autonomous, and independently endowed research organization, has been particularly interested in the issues emerging from financial instability, their relation to the functioning of the economy, and the necessity for reconstituting the financial structure for the further development of the complex and modern economy of the U.S. The essays of Anthony Solomon and Alex Pollock, contained in this *Public Policy Brief*, are based on the papers they delivered at an Institute Conference in November 1991.

The aim of the Jerome Levy Economics Institute is to promote open debate on the economic problems that concern governments and policy-makers in the United States, in other industrialized nations, and in countries in the process of development. The launching of a series of *Public Policy Briefs*, of which this is the first issue, could not have

been a more convincing tribute to the Institute's seriousness of purpose: "To pursue knowledge of economics that will enable nations to enlarge personal freedom, promote justice, and maintain stable economies with full employment and rising standards of living."

It would be inappropriate of me to preempt what Hyman Minsky in his introduction and the authors of the essays have to say on the financial structure of the U.S., but perhaps I may be allowed to echo a general theme. The resolution of the financial instability and the required reform do not depend on the application of a simple formula, but on an honest appraisal of the needs of an advanced and innovative market economy.

Dimitri B. Papadimitriou
Executive Director

July 1992

Introduction

Hyman P. Minsky

In the 1930s, the United States government pledged that defined deposits at insured institutions would always be at par. Reserves accumulated by assessing depository institutions served as the proximate funding for this guarantee: the full faith and credit of the United States was the ultimate funding. During 1989 and 1990, widespread bankruptcies and compromised equity positions of commercial banks depleted the reserves that insured deposits. In 1991, the Congress had to either replenish the insurance fund or to renege on the 1930s pledge. Events forced legislation to refinance deposit insurance onto Congress's agenda for 1991.

The need to refund deposit insurance for banks opened the door for the Congressional agenda for 1991 to include proposals for sweeping changes in the financial system. Refunding and reform were to be joint products. A key document in the discussion that followed, both in and out of Congress, was the Treasury's *Modernizing the Financial System: Recommendations for Safer, More Competitive Banks* of February 5, 1991 (the so-called Glauber report).

The administration touted the Glauber package as the most significant proposals for financial system reforms since the Great Depression. It argued that events had made the financial system, whose structure was largely a legacy of the 1930s, an anachronism: the legislated structure had not been adjusted to changing technology, new non-bank financial institutions, and, implicitly, the greater wisdom of economists and staffers at the Treasury.

As the 1991 session ended, Congress (after much huffing and puffing) provided some \$70 billion to replenish the deposit insurance fund. The reforms were minimal: supervision was tightened and the authorities were granted greater power to intervene as losses mounted in an institution even though equity had not been fully dissipated. No significant action was taken to change the coverage of deposit insurance, the regulatory structure, the powers and authority of the Federal Reserve System and what banks can do, where they can do it, and who can own them. Meaningful reform of the financial system fell by the wayside.

Because nothing of real significance was accomplished in 1991, financial reform and restructuring are almost certain to return to the policy agenda, if not in 1992 then after the election. As a minimum, reform will enter the agenda as the bank or the savings and loan insurance funds need further replenishment, or if Congress becomes concerned about the way the vast portfolio of assets that have been acquired by government agencies in the process of refunding the failed institutions are administered. Questions of further federal government funding and the need for reform were not put to final rest in 1991, although Congress, quite wisely, decoupled the two.

Thus, the papers and the discussion at the Jerome Levy Economics Institute's conference on "Restructuring the Financial Structure," which was held at Blithewood in November 1991, are of continuing interest and importance. The theme of the conference, that the discourse about financial reform needs to go beyond the narrow focus of the Treasury's and Congress's 1991 agenda, is as true now as it was in 1991.

Meaningful reform of the financial system requires a framework that enables us to understand: 1) why the financial structure that was put in place in the aftermath of the Great Depression and served the country well for almost fifty years stopped serving the country well; and 2) what principles, i.e. what economic theory, should guide financial system reform.

A view about how the economy works, i.e. an economic theory, underlies every interpretation of an economic situation and every recommendation to

correct perceived system malfunctioning. Often the economic theory guiding a diagnosis and a policy proposal are not well articulated. One aim of the conference—and of the Levy Institute's project on financial restructuring—is to draw attention to the need to articulate theoretical presuppositions when analyzing the economy and making policy proposals.

In this policy brief, two of the policy presentations at the conference are joined. Both papers dealt with the 1991 crisis in a longer perspective: Anthony Solomon's from a lifetime of experience as both a working financier and a public servant, and Alex Pollock's from a distinguished career in private banking.

Solomon begins with a well-articulated argument that from the Great Depression to the 1980s there was a coherent regulatory philosophy in banking that recognized both the public nature of the activity and the way the private capital was supplemented by implicit public capital. This regulatory philosophy led to a system that worked well enough.

Alex Pollock's experience, up to his recent appointment as President of the Chicago Federal Home Loan Bank, was exclusively as a private-sector banker, albeit one whose philosophical bent led to his distancing himself from the standard rationalizations of their activities of practical men. He points out that the growth of assets at risk to measured capital or as a percentage of total assets after World War II implied either that the overall riskiness of the activity banking had greatly diminished or that each bank had an unstated "call" capital that underpinned the paid in capital. In this interpretation, the crisis of the last several years was not a bailout but was really a "call" on a prior commitment.

In the perspective of both Solomon and Pollock, the flaw in the deregulation of banking in general, and the savings and loan associations in particular, was that the interests of the provider of the call capital were not attended to: bank regulation in this view is the instrument by which the contingent supplier of capital has attempted unsuccessfully to contain its exposure.

Another aspect of the financial structure that broke down in the past several years was that it was a compartmentalized system. Although Solomon envisages a consolidation of banking with the emergence of a dozen or so nationwide branching systems, he also envisages the continuation of a diversified system in which many of the banks are specialized to particular parts of the financial system. If provisions that ease *de novo* entry into the

business of banking are added to a reform package, then the recognition of the profitability of specialization—boutiques are more profitable and are viewed with favor by the equity and bond markets—the Solomon perspective might very well lead to the emergence of a “horses for courses” banking structure.

Pollock's discussion of collateralized banking cuts through the “narrow-banking” debate by identifying the problem of generating a stable banking system as limiting the assets that would offset the insured monetary liabilities of institutions. An implication of Pollock's insight is that any bank will be free to offer any type of uninsured liability for the financing of particular ranges of asset holdings. The complement to the collateralized money bank whose liabilities are called deposits and are secure is a credit bank whose at-risk liabilities would finance asset holdings as defined in the equivalent of a prospectus. The possibility of a geographically distributed system of independent, finance-oriented institutions that offer a menu of liabilities with differing portfolios to a community of asset holders is an intriguing aspect of the Pollock proposal. One could argue that the objective of the Pollock proposal is to simultaneously provide for a safe and secure medium of exchange and for institutions that promote the capital development of the economy, without simultaneously promoting those speculative aspects of financing that make the Casino designation of the financial structure of the 1980s apt.

It is clear that more is at issue in banking and financial reform than the bailout of overextended institutions. In its activities in finance the Jerome Levy Economics Institute is performing what can only be a useful function: it is broadening the discourse.

Personal Views on Financial Reform

Anthony M. Solomon

The objective of this paper is to discuss how to reform and modernize the U.S. financial system so as to put our institutions on a healthier footing, and assure that they are in position to finance adequate economic growth in the country in the years ahead. This is a subject of great significance for our nation's future. In 1991, we witnessed a contentious, often confusing, and ultimately inconclusive debate over institutional and regulatory reform both between the Bush administration and the Congress and within the Congress itself. There are many complex issues involved, many dilemmas that must be sorted out, and many options for changing the system we now have. I think it is possible to cut through the complexity and make some sense of what the guiding principles for an improved financial system ought to be.

To begin at the most general level, there are two distinct dimensions to the question of financial reform. The first is to try to define an ideal system. This requires paying close attention to what went wrong in the 1980s, when so many banks and thrift institutions failed or came close to failing. Many are still

in the intensive care ward. It requires paying close attention to what different types of financial institutions (e.g. commercial banks, savings and loans, securities firms, investment banks, finance companies like GE Credit, insurance companies, mutual funds, etc.) are actually doing, how they compete among themselves, and with what special advantages or handicaps.

It also requires paying close attention to what is going on outside the United States and the other major industrial countries. Their institutions are becoming bigger and increasingly competitive, but their institutional structures and rules of the game are very different from our own. Coming to a view of what would count as an ideal system should not be colored by bureaucratic or political considerations, no matter how influential they may be in the real world.

The second dimension is to define the range of what is feasible in that real world and to try to identify the best practical course of action. Realism means understanding the powerful and deeply ingrained interests at stake and the personalities involved. In fact, the players in the politics of financial reform are a unique fraternity. This is not a constituency issue, unlike highly charged topics such as taxes, abortion, and gun control. The general public only knows broadly what it wants: bank deposits that are unquestionably safe, access to credit (preferably on generous terms), and not too much concentration of economic power. Beyond those simple preferences, the ordinary voter has no particular view on the subjects of how to structure and how to regulate financial institutions and markets. Senators and Representatives are not going to be voted in and out of office in any election on the basis of whether they were in favor of or against the repeal of Glass-Steagall or McFadden-Douglas, although they might be for being associated with some of the rogues that popped up in the last decade.

To most people, the task to financial reform is rightly seen as highly technical and complex: it is better left to the experts. I have been around, and possibly among, such experts on and off for some two decades: in government as the Secretary of the Treasury for Monetary Affairs during the Carter administration, in central banking as President of the Federal Reserve Bank of New York, and in private business as an investment banker and as a director of mutual and pension funds. I have learned that the experts differ widely on what should be done to reform the system, even when they agree that reform is needed and even when they share similar ideological principles. Thus, after hearing the experts dissent, the politicians (who must ultimately pass something into law) allow themselves to be swayed by those who have the strongest feelings on the subject—namely,

the commercial bankers, investment bankers, insurance salesmen, and other financial executives who have a lot riding on how financial reform takes shape and whose turf will either be protected or left exposed to the perils of new competition. This is the elemental politics of the professional lobbyist, the political action committee, and the campaign contribution.

Those who watched the recent comings and goings in Washington over the issue of financial reform witnessed a predictable outcome of this clash of powerful forces—gridlock. Both the administration's comprehensive reform proposal and the alternative, sharply different legislative package that came out of two warring committees of the two houses fell by the wayside. The outcome in 1991 was a most strained down version of reform.

At this stage of my career, I have the luxury of stepping back from this political process and saying what I think about the first, and ultimately most important, dimension: what should be done to improve our financial system.

By way of background, it may be worthwhile to review very briefly our financial institutions and how they got into the mess they are in now. The shortcomings in the 1980s necessitate comprehensive reform of institutional powers, rule-making structures, and ongoing supervisory arrangements. The key lesson of the 1980s is that deregulation of deposit institutions, both commercial banks and thrift institutions, while maintaining virtually unlimited access to the extensive safety net of cheap federal deposit insurance and without forceful independent official supervision, was a recipe for disaster. Let us recognize that the marketplace is extraordinarily adaptive: old regulatory assumptions are swiftly invalidated as business shifts from the most to the least regulated channel.

In the 1980s, banks lost their best, most credit-worthy customers to the open securities markets, where highly credited corporations could borrow more cheaply than banks themselves. Regulators did not truly appreciate the potential of money market funds, and so allowed them to grow without seeking legislative authority to impose any of the requirements that restrict banks. Money funds have never faced either non-interest-bearing reserve requirements or regulatory capital ratios.

At the same time, the business of lending money to families to buy homes was also changing dramatically. Securitization of mortgages, aided importantly by government-sponsored enterprises such as Ginny Mae, Fannie Mae, and Freddie Mack, meant that large institutions such as insurance

companies and pension funds could indirectly compete with the traditional holders of mortgages, the thrifts. For a while, securitized instruments were safe, attractive assets for these institutions. Such competition inevitably cut the rate of return that the typical savings and loan institution could expect to make from its core business.

Commercial banks, which were losing top corporate borrowers to the open credit market, and thrift institutions, which were losing mortgage business to the giant institutional investors, took advantage of deregulation to move into other lending areas. Thrift institutions lent billions to commercial real estate developers, established real estate development companies, financed undeveloped land, and bought junk bonds. In short, they moved headlong away from relatively safe but relatively low-yielding assets into all sorts of risky assets. They financed all of this on the basis of deposits that were fully insured by the federal government. If they could not raise the needed funds locally, they merely turned to Wall Street and paid what was necessary to acquire broker deposits. There was virtually nothing in the regulatory system of the mid-1980s to slow down this out-of-control credit machine.

At the time, no one knew just how risky those new kinds of loans would be—nor, in the case of the savings and loan, just how many crooked operators were entering the business (we now know). Meanwhile, the taxpayer is poorer by anywhere from \$200 to \$400 billion, depending on how bad the commercial real estate situation gets before it stabilizes.

In the 1980s, the regulatory system lost its traditional moorings. Back in quieter times, like the 1950s, there was a coherent financial regulatory philosophy in the United States that regulation should carve out and preserve franchises for financial institutions. Financial institutions, strictly segregated by type, would always be profitable enough to build up capital reserves. They, therefore, would be in a position to ride out the ups and downs of the business cycle without direct government aid. That somewhat paternalistic but basically sensible view was eroded over time.

By the time Ronald Reagan arrived on the scene, this view was largely discredited: it was sneered at by academic economists and questioned by politicians of both parties. Democrats who protected franchises were ridiculed as hypocritical by free market advocates, while Republicans were all too ready to embrace the winning Reagan ideology. The casualty was oversight of the financial system.

Even now (long after the savings and loan debacle, the striking increase in bank failures, and the near insolvency of the FDIC), no coherent philosophy has emerged to establish basic principles on which to ground our future financial system. Do we prefer the law of the jungle, letting the chips fall where they may for both the biggest and the smallest? It is still the policy of the U.S. to protect all depositors in banks that are deemed too big to fail. Are we, therefore, condemned to cynical pragmatism—disregarding profitability and imprudent balance sheets—until losses materialize, and then selectively bailing out institutions depending on their impact on the rest of the financial system or the political clout of their representatives?

The U.S. Treasury study on modernization came down strongly against that kind of cynicism. However, it backed away from the implications of its own analysis, namely that some very large banks would have to fail if market discipline were to be taken to its logical conclusion. The Treasury policy-makers temporized and their position remains an uncomfortable mix of partial market discipline and implicit government protection.

This brings me to a statement of those principles of financial reform that I feel are important, regardless of whether they are politically feasible at the present time. First, nationwide banking should be allowed. We should, of course, always seek to avoid excessive concentration of economic and financial power. As a practicable matter, by any reasonable yardstick, our financial system is not highly concentrated. To the contrary, we have too many banks, too many weak institutions, and too little profitability in banking. This increases the cost in both equity and debt capital to deposit institutions, making them less competitive, less capable of growing, and therefore less able to support economic growth. The simplest step for treating this shortcoming is to permit full nationwide banking. I believe there is growing agreement that this would be a positive development. After all, as a result of various regional compacts and bilateral state reciprocity arrangements, we are already about three-quarters there.

While the consolidation of financial institutions itself does not pose much of a threat, there is reason to be wary of allowing commercial and industrial corporations to own and control large commercial banks. That is a combination not found in other major industrial countries, and it is not necessary for attracting equity capital to the banking industry. It could lead to undue economic power. Besides, in those instances where commercial and industrial firms have owned and controlled thrift institutions, which is permitted, their management capabilities have been found wanting.

Second, federal deposit insurance should be restricted. The availability of deposit insurance has gotten out of hand. I agree with the U.S. Treasury that we should limit the number of fully insured accounts that an individual can hold, and we should strictly limit access to insured brokered deposits. I acknowledge that these limits would impose somewhat more of a burden on smaller banks than on larger banks, but without such limits the taxpayer will remain excessively exposed to repeated large losses.

Alternative proposals have been made for constricting the scope of deposit insurance either by tightening the eligibility standards of deposit institutions to enforce potential lending standards or, even more radically, by adopting what is called the narrow-bank concept. The narrow-bank approach would require banks to invest insured deposits entirely in assets of the highest credit quality, such as government securities. I am skeptical that either of these more extreme options would necessarily lead to a safer banking system. You might simply rearrange the location of potential problems. But doing nothing about the exposure of the deposit insurance system, which is the expressed position of the Congress, is not right either. In my opinion, incremental measures to limit the number of insured accounts is a reasonable compromise.

Third, financial regulation should be consolidated. If the government essentially underwrites a great bulk of the financial liabilities of banks, whether through the federal deposit insurance system or through the implicit safety net inherent in a doctrine of "too big to fail," then the government has to have the right to closely supervise the operations of institutions holding insured deposits. To do that effectively, it must put in place a sounder regulatory structure and sufficient talent to perform a difficult job with expertise and judgment.

Today the regulatory structure is not working properly as there are too many regulatory bodies at the federal level. The existence of fifty state banking commissions and fifty state securities commissions is an anachronism. Altogether, the regulatory system produces massive duplication and overlapping authority, which coexist with huge blind spots and regulatory gaps. It fails to deliver real accountability, and it fails to provide a mandate for early action for solving emerging problems before they become life-threatening for a bank and highly costly to the taxpayer. It lags behind market innovations and is inconsistent with the developing trend in which the homogenizing commercial and investing banking firms compete in so many lines of business, such as foreign exchange dealings and interest rate and currency swaps. It lacks the capacity for negotiating internationally

sound agreements for harmonizing regulatory standards and practices. In short, an improved regulatory system must be more alert, more responsive, and less handicapped by the problem of financial practitioners engaging in sharp practices (e.g. cutting corners to stay ahead of the regulators). This requires better, more streetwise regulatory personnel for whom adequate compensation is essential.

I would like to see regulatory consolidation and clarity unifying the federal financial supervising agencies, with the Federal Reserve playing a leading role. That is because when all is said and done, it is only the central bank, both in our country and other industrial countries, that has the ability and resources to act as a lender of last resort, whether to individual institutions facing liquidity problems or to the system as a whole.

Fourth, reliance on numerical standards such as capital ratios should not eliminate supervisory discretion in evaluating banks. I would seek to strike a sensible balance between formal and often numerically precise requirements, such as the recent emphasis on minimum capital ratios, and more informal supervisory guidelines that stress the individual character of different banks or types of banks. Thus, I would put a great deal of emphasis on adequate diversification, which is more a matter of judgment than of formulas. Two banks with the same capital ratios can have wildly different exposure to risk as well as staunchly different long-term profitability, depending on the overall structure of their loan portfolios and their off-balance sheet positions.

This does not mean that I would water down tough capital ratios. I am frequently struck by the fact that some of the most profitable banks, as measured by the rate of return on equity, are those with relatively high capital ratios and conservative balance sheets. But that, I think, is simply because they are better bankers in the sense of having greater skills in measuring and monitoring risk and distinguishing between borrowers who are likely to repay and those who are not: this cannot be mandated by regulation alone. Nevertheless, I am fairly confident that an improved system for supervising banks would have transparent accounting standards rather than the largely opaque accounting standards now permitted; there would be less ability for banks to disguise problems and not recognize impaired assets.

Whether an ideal system would go all the way to extreme proposals, such as mark-to-market accounting, or even to more stringent lower cost or market accounting, is questionable. It would impart greater volatility on earnings and, at least for a period of time, translate that volatility into stock

prices. Whether an ideal system should follow the European practice of permitting hidden reserves is even more dubious.

I do feel strongly that an improved regulatory system could be far better supported than it is now by the outside auditors of banks: there have been too many cases in which outside auditors have shown themselves to be quite ineffective in detecting frauds or shady practices and all too ready to bend over backwards to make a bank's condition appear more favorable than it really is. Some of the more egregious cases have ended up with large lawsuits, which I suppose is inevitable in our culture. The one practical improvement I would recommend would be to establish a set of fines that could be imposed by the Federal Reserve on the auditing firms of banks that require discount window support, where the true condition of the bank was obscured and the outside auditor did nothing to force management to provide full disclosure.

Fifth, management and boards of banks should be held accountable, and sanctions should be imposed. A higher duty of care must be enforced for the boards of directors and management of financial institutions. The basic principle is that banking is not purely an entrepreneurial activity. It involves extensive fiduciary duties and public responsibilities to the financial system at large.

I support the idea that the regulatory agency should have the clear mandate to intervene at an early stage when a bank begins to go wrong, and not have to wait until the bank has become obviously insolvent before stepping in. Accordingly, I support the notion that regulators should have the clear legal authority to make an ailing bank suspend its dividends. The short-term adverse impact of regulatory actions—which include dividend suspension on stock market evaluations on the bank concerned, or on large depositors who may try to transfer funds into an alien institution—should be subordinated to a hard-nosed evaluation for the long-term health of the bank. Naturally, part of the effort to intervene early should include stiff restrictions on the compensation and bonuses of management. Even so, I remain somewhat skeptical that bank regulators can entirely keep up with sharp practices or new business activities that can put in jeopardy a marginal institution.

Sixth, we need to level the playing field of institutions, markets, and countries. There are several serious weak spots or inequities in the system. The first is the absence of comprehensive regulation across functional lines. We are in an age in which financial functions are not neatly divided by type of

financial institution, but the jurisdictions of our financial regulatory authorities continue to be established according to traditional institutional type. To their proponents, the narrow focus of the Securities and Exchange Commission, which oversees securities firms and investment companies, and the Commodities Future Trading Commission, which oversees commodity brokers, is justified on the grounds that it permits these agencies to build a high level of technical expertise. But there are serious drawbacks in our world in which banking, trading securities, underwriting, futures activities, and risk management are increasingly interwoven. Harmonizing these various functions under a centralized financial regulatory authority would permit technical expertise to be preserved, but it would make sure that banks, securities firms, and other financial institutions are treated alike and supervised comprehensively.

Such an amalgamation would also allow us to resolve other weaknesses that contribute to an uneven playing field at times. For instance, life insurance companies have no federal regulator, and the different practices and competencies of state insurance commissions lead to anomalies and potential risks. Several insurance companies have become deeply involved in investment banking, in futures and options trading, and other financial services normally associated with banking. Moreover, money-market funds get unjustifiably special treatment. Finally, our equity markets are overly regulated relevant to our futures markets.

As Treasury Secretary Brady has long maintained, without much support in Congress, the need for harmonization is compelling. Federal regulatory harmonization in the U.S. is probably a precondition for any serious negotiation to create a more level playing field for financial services internationally. To be sure, progress has been made in this area since the early and highly tender step of a decade or so. The Basel Accord on capital ratios was a significant accomplishment. It has done a lot to quiet the criticism that American banks had to live under a much tougher regime than others, especially the Japanese. It has also encouraged collaboration in other areas such as payment system risks. But until we have basic reform of financial powers and our regulatory structures in the U.S., and so long as the European Community is committed to financial and ultimately monetary unification of some sort, we are bound to run into potentially serious disagreements with the Community. Reciprocity may start to be used against our institutions in Europe, unless we at least get rid of restrictions on nationwide banking. As the U.S. Treasury has learned, other countries are not about to accept our distinctive legal forms, such as the holding-company structures for banks and other financial institutions.

These six principles detail my perspective as to what a foundation of stronger financial system in the U.S. should be. I recognize that not all will be supported or adopted. Let me conclude by giving some idea of how I feel the future will evolve. I would classify myself as a cautious optimist. We will not get comprehensive financial reform, but we will probably get piecemeal improvement: certainly there will be setbacks. The 1991 vote in the Senate to impose caps on the interest rates banks may charge on credit card lines is a timely warning that mischief is always lurking.

United States financial institutions are going to improve their balance sheets and profitability over the rest of the decade. The fears of a systematic collapse, which pervaded the market during 1990 and 1991, have proved to be unfounded. The Federal Reserve would never stand aside and allow a major proportion of the banking system to fail as a result of a nationwide business recession. Instead, it would ease monetary policy, as in fact it has done and continues to do. The combination of a steeply positive slope yield curve, which allows banks to improve their earnings without taking on any additional credit risk, and the beginning of an economic recovery will contribute to better bank profits. As a result, the share prices of bank stocks rallied in 1991.

The 1990s will, however, be a period of unprecedented consolidation and restructuring of financial institutions. Out of this process will emerge a substantial number, perhaps ten or fifteen, of truly national banks operating in all regions of the country. Some will evolve from existing money-center banks or aggressive super-regionals. Others will be formed out of the mergers of several existing organizations, including both major banks and the top thrift institutions. Of the dozen or so national banks, five or six will be of the size just below that of some of the largest institutions in Europe and Japan: no institution will have even as much as 5% of total deposits. There will also be a number of regional institutions of a size now commonly thought to be that of a money-center bank. Several thousand smaller institutions will survive serving very local markets, but in my judgment, the total number of such institutions will likely decline by half or even three-quarters by the end of the decade.

This market structure will support a number of different strategic approaches to banking. Most, but not all, of the truly national banks will be of the full-service variety. All things financial to all people, much like the strategic vision that Citicorp had been proclaiming for many years, will characterize them. Some of the banks operating nationwide will be concentrating on retail, consumers, and local business. They will not have the

complex capital market and the securities trading responsibilities that are normally associated with the money-center bank.

It is obvious that at least two prominent money-center banks, J.P. Morgan and Bankers Trust, have little or no interest in nationwide banking per se. They are specialists, serving the wholesale market nationally and globally. That specialty is highly valued by the stock market. They do not need nationwide branches to fill that niche. In fact, the share prices of banks that specialize, whether in wholesale banking, trust services, transaction processing, or middle-market lending, are consistently priced at substantial premiums. Stock market investors reward scale economies in banking but severely punish scale diseconomies that come from overly complex organizations that are difficult to manage and subject to risk.

The U.S. financial structure will see the best of the specialist institutions spreading over the country as a whole but not straying from the core business that made them exceptionally profitable. Thus, I can visualize some of the leading California thrifts, which seem to know how to do retail banking safely at a very low unit cost, becoming among the top nationwide retail bankers. Incidentally, the distinction between thrifts and banks may well disappear as commercial banks get involved more heavily in home mortgage finance. A few of the more prominent savings and loan associations contemplate switching to a bank charter some day.

What about securities firms and insurance companies? While banks may overcome intense opposition and end up selling insurance policies to their customers, I see no advantage in a bank owning or running a large insurance company. I concede this is now allowed in Europe (and apparently it is being done successfully), and I also see the eventual abandonment of Glass-Steagall barriers between commercial banking and investment banking. As in the case of nationwide banking, we are three-quarters there already. The Federal Reserve will continue to use its discretionary administrative powers to permit underwriting powers to well-capitalized banks. The number of viable candidates will increase over the decade as banks come out from under their current asset quality problem and build up their capital ratios. By the end of the 1990s, I wouldn't be surprised to see Salomon Brothers, to use that firm as an illustration, being part of a financial holding company that included a major commercial bank operating on a nationwide scale. You simply do not hear opposition anymore to such an evolution even from the Securities Dealers Association, the industry's lobbying group.

As for the regulators, will they be able to keep pace? They always tend to lag a step behind market developments, and here I have some doubts. It is by no means clear that the political leadership in Washington is wholeheartedly behind tough, independent supervision for financial institutions. Moreover, I do not see any sense of urgency within the existing regulatory bodies, either in Washington or in the various states, to unify the institutional structure. Therefore, the kind of regulatory consolidation that would be best equipped to oversee the coming transformation of our financial system and produce the most farsighted international harmonization of supervisory standards is unlikely.

Fundamental Change Little by Little: Banking Evolution

Alex J. Pollock

The reason I entered banking—and I still adhere to this belief—is that I think financial systems and their relationship to the rest of life, including the real economy, are philosophically fascinating. In my opinion, there is no doubt that the fundamental proposition of my good friend Hy Minsky is right: financial busts and crashes and crises are natural occurrences. However, we have to be more sophisticated than the usual *ex post facto* explanations, such as that bankers are stupid, greedy, fraudulent—these are uninteresting hypotheses.

The interesting question is how do groups of intelligent, sophisticated bankers, investors, borrowers, entrepreneurs, and venture capitalists find themselves caught together in the busts? At Continental Illinois I lived through a bank run. Continental Illinois was filled with smart, competent people—yet it failed. Walter Bagehot observed that in the excitement phase of a financial expansion, the ablest and cleverest leverage the most. We need to address a subtle question: how is it

that intelligent, hard-working, competent, analytical bankers, investors, and entrepreneurs end up in financial messes?

Often the explanation offered by economists is one of incentives. If we only had better incentives (if banks, for example, had more capital, more management ownership, and more involvement by the at-risk shareholders), it is said, you would not have these crises. I am not much impressed by this argument. History is full of private banks that are not only owned by the bankers but where the banker himself had his total personal wealth committed to the liabilities of the bank; those private banks got involved in financial bubbles and the subsequent busting just like banks and other financial companies do today. I do not think the problem is incentives. I believe the essential question is one of knowledge and ignorance, or knowledge and error, or what we may call the doctrine of rational mistakes.

Don Schakelford, Chairman of the United States League of Savings Institutions, had this to say about the savings and loan collapse: "The unintended folly of the reasonably decent was far more costly than the contrived villainy of the corrupted few."

This is a fine phrase. However, I prefer the language of Bagehot to the same effect in one of my favorite passages of *Lombard Street*:

An effectual supervision by the whole board of directors being impossible, there is great risk the business may fall to the general manager. A manager sometimes committed frauds which were dangerous and still oftener made mistakes that were ruinous. Error is far more formidable than fraud. The mistakes of a sanguine manager are far more to be dreaded than the theft of a dishonest manager. The losses to which an adventurous and plausible manager in complete good faith will readily commit a bank are beyond comparison greater than those which a fraudulent manager would be able to conceal. There is not more unsafe government for a bank than that of an eager and active manager subject only to the supervision of a numerous board of directors.

I take Bagehot as a canonical source for the key factor being mistakes and errors of intelligent and *ex ante* credible actors.

How do managers come to make such momentous mistakes? One of my favorite philosophical and managerial lines is: "Many things which were considered impossible nevertheless came to pass." The question is less why they came to pass than why they were considered impossible by all of these well-educated, hard-working managers.

A partial explanation is that for practical purposes (whatever one might want to say theoretically), and speaking as one who has to make decisions subject to uncertainty and ignorance all the time, risk is a feeling. When something ceases to feel risky, you go ahead. Very risky things are done because one gets used to doing them. Feelings of riskiness fade when practice changes only slowly over an extended time. We are great comparers of this year with last year or maybe even five years ago, but as things keep drifting, little by little, step by step, over a long period of time, we get used to it. So we might slightly alter some couplets of Alexander Pope. In the original, the first word is "vice"; the bankers' version begins with "risk":

Risk is a creature of such frightful mien / That to be hated needs
but to be seen, / Yet seen too oft, familiar with her face, / We first
endure, then pity, then embrace.

The graphs that follow describe the entire commercial banking system of the United States over a period of four decades, from the late 1940s or 1950 until 1990.* I have taken the kinds of parameters that I, as a general manager subject only to the supervision of a numerous board of directors, care about and have examined them for the banking system as a whole. What they show is higher and higher levels of risk that happened little by little.

We may think of this as "how to boil a frog." You may remember the old story that the way to boil a frog is to put him in very comfortable warm water so he relaxes. Then you turn up the heat one degree at a time, and before he realizes it, he is cooked. So in the banking system, one degree at a time, little by little as the years went on, financial relationships shifted, but feelings of risk did not keep up with how much they were shifting. What we have is not merely a decade of the often-discussed "excesses of the 1980s," but a long-term, four-decade buildup of financial fragility.

The first graph addresses leverage. The leverage of banks is typically treated as the ratio of assets to capital or capital to assets. That is a thoroughly misleading ratio and does not measure the real leverage of a bank at all. The real leverage of a bank is loan leverage: loans to capital or capital to loans. There are many ways to get into trouble in a bank, but the biggest and easiest and the one most likely to put you under is through the loan portfolio. It is a mathematically obvious point that the higher the leverage of loans to capital, the less margin for error you have in the loan portfolio.

* I would like to thank Richard Jaki of the Federal Reserve Bank of St. Louis for research assistance.

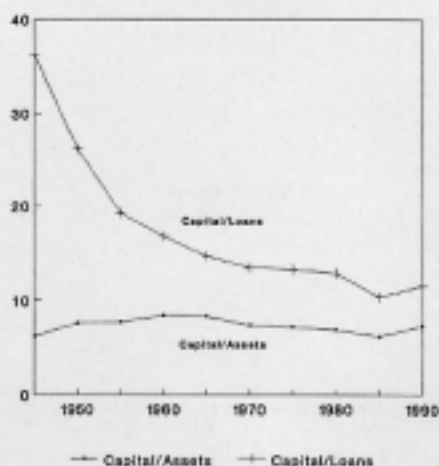
In Graph 1, the bottom line is the capital-to-assets ratio of the American banking system from 1946 to 1990. Generally speaking, it is flat. The capital-to-assets ratio in 1990 was essentially the same as it was in 1946. However, consider the top line, the ratio of capital-to-loans. Capital-to-loans engaged in a four decade-long constant downward trend. Inversely stated, the loan leverage, which is the real leverage, engaged in a constant four-decade-long upward trend to historical highs. At the very end, there is a little correction, but it has not corrected much.

Graph 2 represents the ratios of loans and assets to capital and covers the last century. Obviously, in this longer view, the leverage goes higher and higher. The top line, the assets-to-capital ratio of the American banking system, rose dramatically during World War II. It is now about the same as it was in 1946, but far higher than it was for the sixty years before that. The bottom line is loan leverage, loans-to-capital. The previous peak was in the 1920s at loan leverage of about 5, or \$5 of loans for each dollar of capital. We have gone far beyond that since.

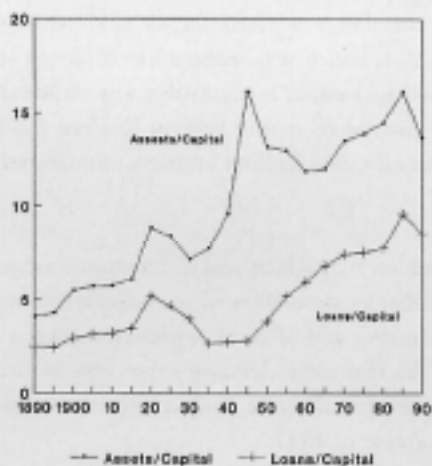
In 1955, we passed the previous loan leverage peak of 5 to 1. In 1956, a financial vice president of New England Life considered that the American financial system had gone through astonishing change since 1950. He argued that the banking system was out of capital and could not further expand its loans. That proved to be a poor prediction. We have constantly increased loan leverage, reaching almost 10 to 1 in 1989, double the previous peak.

The acceleration of asset leverage until 1945 represents financing World War II. We may recall that banks were originally established to finance the government—which is what the banks were doing in the early 1940s. Beginning with an asset leverage of 7.5, they doubled it by 1945 in order to hold government securities. This seems to have established a new general perception of what asset-to-equity ratio was acceptable and did not feel risky. However, in 1945, loan leverage (the real leverage) was only 2.5. After the war, banks did not bring asset leverage back down, but over time they filled the expanded balance sheets with loans in place of the previously held government securities, and so brought real leverage to its all-time high.

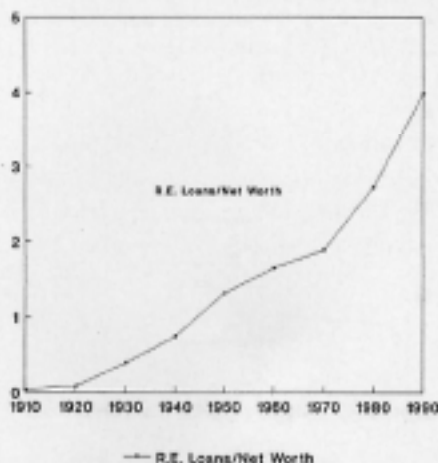
Graph 1
Capital/Assets and Capital/Loans
Ratios for American Banks



Graph 2
Assets/Capital and Loans/Capital
Multiples for American Banks



Graph 3
Multiples of Real Estate Loans
to Net Worth for National Banks



Graph 3 starts in 1913 because it displays the ratio of real estate loans to capital of national banks. Under the National Banking Act of 1864, real estate loans were prohibited to national banks. This restriction was first loosened in 1913: previously, the national bank real estate loans-to-capital ratio was zero. That did not stop state banks from failing by the hundreds in, for example, the panic of 1890. But because of the nineteenth-century experience with the dangers of financing real estate speculation, the National Banking Act, which was intended to drive the state banks out of business, prohibited real estate loans to the new national banks. In 1913, one of the minor provisions of the Federal Reserve Act allowed national banks to enter the real estate lending business, though only for agricultural loans.

In the 1927 McFadden Act, which was in intent and achievement a liberalizing act, national banks were allowed to make urban real estate loans of up to five years maturity and 50% of appraised market value. This liberalization added to the real estate lending expansion of the late 1920s. The subsequent collapse of real estate finance was an important part of the overall banking collapse of 1932.

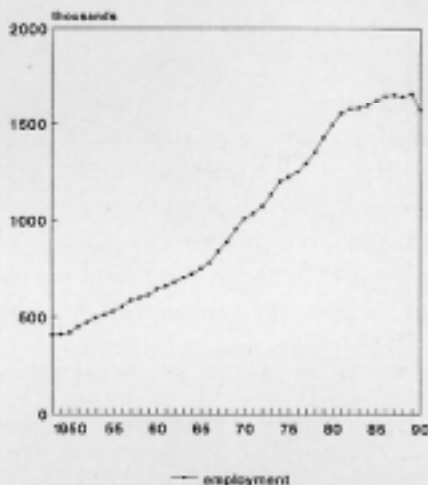
Jesse Jones, the head of the Reconstruction Finance Corporation, recalled that when he went to Chicago for the 1932 Democratic Convention, he spent Saturday morning walking around the Loop, where the crowds were

still milling, left over from runs on downtown banks of the week before. At this time, Jones wrote:

Scattered all over the neighborhoods and the suburbs and the business centers of Chicago were the remains of the banks which had become entangled in the financing of real estate promotions and died of exposure to optimism.

But the expansion of national bank real estate loans as a multiple of capital continued over the decades, accompanied by the progressive loosening of each parameter of control in real estate lending laws, until it got up to a multiple of 4 by 1990. We are all aware of the magnitude of the problems this entails.

Graph 4
Banking Employment 1948-1990

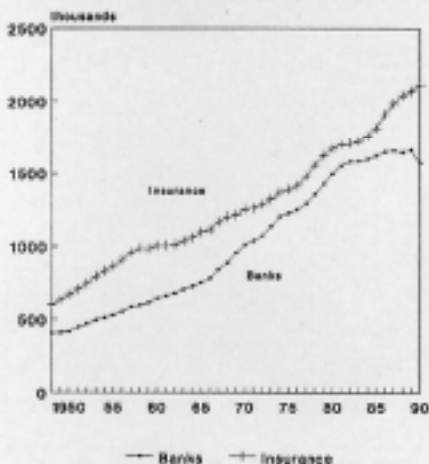


Now we turn to what bank managers think about but hardly any academic theoreticians of banking ever address: the production of banking services. To produce our volume of financial transactions takes a lot of people. Graph 4 displays aggregate banking employment since 1948. When I ask professional managers of banks what they think this line will look like, most get it wrong. Aggregate commercial bank employment in the United States went up every single year from 1948 to 1989. In fact, it quadrupled, from 406,000 employees in 1948 to 1.66 million employees at the peak in 1989. In the 1980s, the growth rate slowed, but employment still increased every year. Bank managers tend to get this question wrong because they

know that in the mid-1960s banks began intense computerization, which has continued ever since. Computers notwithstanding, the aggregate employment line continued steadily upward.

We absorbed into the banking system a tremendous amount of employment and expense, and therefore another kind of risk. This is operating or break-even risk. You must pay for all those salaries and benefits, for the expensive downtown space, and for the computers. If you are raising your break-even point all the time, you must push to expand business volumes (e.g. loans) to support the expenses. However, the banking system was not alone in expense expansion.

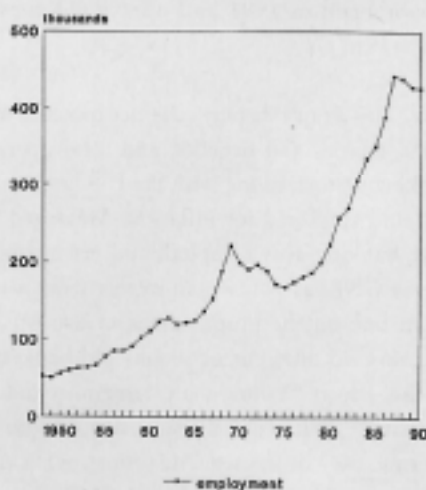
Graph 5
Banking and Insurance Industry
Employment 1948-1990



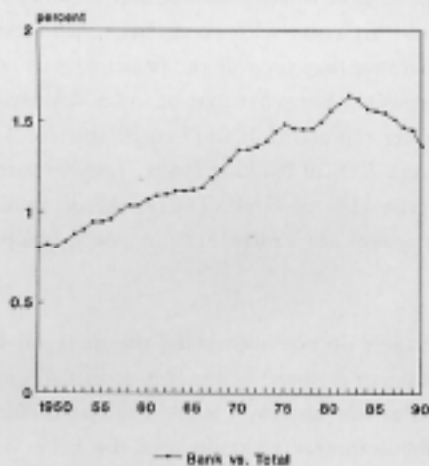
Graph 5 shows aggregate employment in the insurance industry, which also quadrupled during this period and increased continually. Graph 6 is aggregate employment in the securities industry over the same forty years. The securities firms do reduce employment in difficult times, but the rising trend line is the same, with an especially rapid expansion in the 1980s.

Graph 7 shows commercial banking employment as a percent of total employment. Between 1948 and 1982, the share of total employment represented by banking doubled. During this period, the growth rate of banking employment was more than double the growth rate of total employment in the country. Since the credit problems and the expense control focus of the

Graph 6
Securities Employment 1948-1990



Graph 7
Banking Employment as a Percent of Total Non-Agricultural Employment



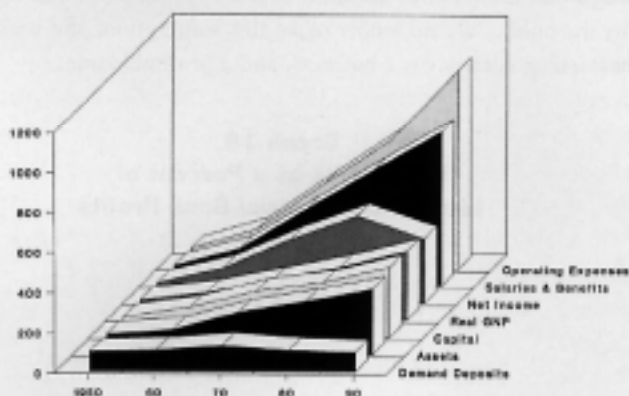
early 1980s, there has been a reduction in share of employment. In 1990, the absolute number of bank employees went down for the first time since 1948. It will be down again in 1991 and one would guess the correction has a significant way yet to go.

Graph 8 shows why. This graph displays the net income, total assets, capital, demand deposits, salaries and benefits, and total operating expense of the commercial banking system, along with the U.S. gross national product, all indexed to 1950 and corrected for inflation. Measured in constant dollars over forty years, banking assets, capital, and net income grew at essentially the same rate as GNP, as you would expect from a mature business. Consider the bottom line on the graph, demand deposits. When I was a trainee in the bank, on two different occasions old bankers took me aside and said words to this effect: "Young man, remember that this business is about demand deposits." What did demand deposits do over these four decades? In real terms, they decreased. Meantime, what did expenses do? In constant dollars, income, assets, capital, and GNP all multiplied roughly 3.5 times over the forty years; bank salaries and benefits multiplied 7.8 times. Total bank operating expenses multiplied 10 times. That gives us an indication of how much expense reduction, productivity improvement, consolidation, and correction there is yet to go.

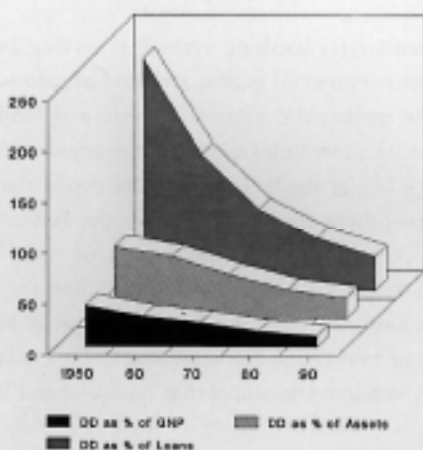
Suppose those old-fashioned bankers were right about demand deposits being the key to banking. Graph 9 focuses on the role demand deposits play in the balance sheet of today's commercial banking system. I particularly like to discuss this issue with economists, who usually argue that banks are special because they provide the principal part of the money supply (i.e. demand deposits). But what part of today's American banking system do these deposits represent? It used to be the lion's share. In 1950, demand deposits were 70% of banking assets. They were more than double total loans, and were 41% of GNP. Today, the demand deposits of the American banking system are a mere 21% of assets, less than half of loans and 11% of GNP.

Most banking managers do not understand the financial statements of the Federal Reserve Banks or how the Fed makes profits. I propose we think of the banking system as not just the commercial banks but a single system with two parts: the commercial banks and the Federal Reserve. While speaking to the Chicago Bankers Club recently, I suggested that there is a traditional line of banking business which, had we been meeting a century ago, the members would have considered normal, but which not one of them is in today. That business is issuing bank notes, providing circulating,

Graph 8
Balance Sheet and Income Statement
Indices for Commercial Banks

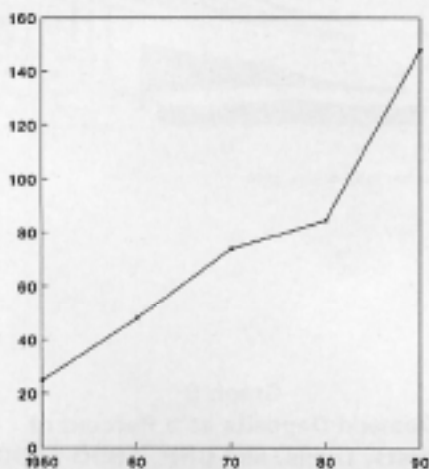


Graph 9
Demand Deposits as a Percent of
Assets, Loans, and GNP, 1950-1990



hand-to-hand currency. Since the 1930s, this business has been monopolized by the Federal Reserve. Had we been having this conference a hundred years ago, all of us would have assumed that the real defining characteristic, the special thing about banks, is that they issue bank notes or currency held by the public. We no longer make this assumption, and we tend to forget that issuing currency is a business, and a profitable one.

Graph 10
Fed Profits as a Percent of
Insured Commercial Bank Profits



If we think of the commercial banking system as having two parts, the Federal Reserve and the commercial banks, we need to ask: which of these two parts makes more profit, the 12,000 commercial banks or the 12 Federal Reserve Banks? As shown on Graph 10, the answer is that in 1990, the 12 Federal Reserve banks made 150% of the profit that the 12,000 commercial banks did—profits of \$23 billion for the Fed and about \$15 billion for the banks. On average for the decade of the 1980s, the 12 Federal Reserve Banks made \$2 billion a year more than the 12,000 commercial banks. It takes more than one thousand commercial banks on average to equal the profit of one Federal Reserve Bank. This tells you that the currency issue is a very attractive business that banks would like to be in if only they could.

Over four decades, the trends we have addressed—the long boiling of the banking frog—continued, and risk perceptions kept shifting. Everybody

(bank managers, shareholders, depositors, regulators, central bankers, academics, and Congress) kept getting used to a system that was growing ever riskier.

Banking evolution brought us all-time-high leverage, the huge cost of relearning real estate lessons, and a deposit structure turned upside down. Banks changed from being financed predominantly by working balances or money, to predominantly by investments for a yield or borrowings of various kinds. Add to this a major shift in profitability from the commercial banks to the Federal Reserve. An excellent summary phrase would be: the development of financial fragility. If we could take a good banker from 1950, put him in a time machine and let him get out in 1991, without having gone through the slow process of change, he would be astonished at the unrecognizable banking system he found. I imagine he would get back in the time machine as fast as he could, trying to get the dials set back for 1950.

Since we are unable to do that, what is to be done in the 1990s? Of course, there is an abundance of competing ideas and proposals. In my opinion, the most important first step is to clarify our concepts of what banks are. Then we may have the possibility of acting coherently.

A key element is to understand the contemporary role of the government as implicit investor in the banking system. One way to look at increasing leverage is that the capital gets less and less. Another is that the capital is there but in two different forms. It is partially explicit capital provided by the shareholders; the rest is implicit capital provided by the government guarantee. To quote Bagehot again, "In banking the capital is used not to work the business but to guarantee it." Conversely, whatever guarantees the business is the capital. If we ask how much capital it takes to capitalize the banking system prudently, and then subtract the explicit capital, the difference is the implicit capital provided by the government. This leads to the conclusion that the government is implicitly the majority shareholder of the entire American banking system. This implicit capital has promoted financial over-expansion and risk escalation.

It is easy to give guarantees because at the time it does not seem to cost you anything. The government's capital is in effect stated, as opposed to paid-in, capital. It is easy to commit to pay if you do not think you will ever really have to. The government is a partner who has committed capital but has not paid it in, and who thinks that the capital is never going to be called.

An older and perhaps more authoritative source than any so far quoted is the Book of Proverbs. The Book of Proverbs suggests that a wise man does not stand as pledge for his neighbor. One wonders how much foresight the author of that old book had: was he thinking about FSLIC and the FDIC, the Farm Credit System, student loans, the Pension Benefit and Guarantee Corporation, the FHA, and the Department of Housing and Urban Development loan programs? These are our variations of getting in trouble by standing as pledge for your neighbor. It would certainly be preferable for the financial system to run without trying to have everybody guarantee everybody else. Bernard Shull has pointed out that banks used to be a unique source of funds to the government; now the government is a unique source of funds for the banks. How do we get out of this tangle?

Two more conceptual clarifications are required. One is that there are no such things as "funds," and "funds" do not "flow": there is nothing to flow. Note that "liquidity" represents the same figure of speech—something that flows. These are very confusing metaphors. The reality is various sets of books with assets and liabilities, debits and credits. In days of precious metal coinage you could meaningfully talk about the flow of coinage. But today, nothing flows: there are only debits and credits on books, and there are liabilities of some entities that various others are willing to hold as assets—and then sometimes not willing to hold as assets. If in the aggregate we are unwilling enough, new financing becomes impossible and that creates the bust.

The second essential clarification is to understand that there are two entirely different parts of the balance sheets of banks. These I call the "Money Bank" and the "Credit Bank." I want to expand at some length on this distinction.

Every bank is functionally two banks. One of these banks issues liabilities (called "deposits") used by the public as money in the operation of the payments system, a key public good: this is the "Money Bank." The Money Bank function is the reason banks are special and why they are singled out for the enormous political and regulatory function they enjoy or suffer. But as we have seen, the Money Bank has evolved from being the primary function to representing only about 20% of banking's aggregate balance sheet.

The other function of the bank, representing 80% of the balance sheet, is the Credit Bank. The Credit Bank, as it has evolved, is an open-ended, extremely leveraged investment fund, which sells debt to the public and

invests in a wide variety of assets, some very risky. Note that the debt of this fund (also called "deposits") is currently sold without prospectus or the other disclosures otherwise required to purvey investments to the public.

Every bank thus has two fundamental parts: a Money Bank, which provides (as old banking discussions called it) "circulating medium"; and a Credit Bank, which is an open-ended, leveraged investment fund. The Money Bank is an essential element of the social infrastructure of every developed economy. The Credit Bank is just one more way to make investments, among many financial market alternatives. These contrasting bank roles were clearly articulated by Milton Friedman in 1959, Irving Fisher in 1936, Henry Simons in 1934, and others before and since.

The essential objective and rationale of bank regulation should be to secure for the public good a reliable stock of money in which the exchanges of a complex market economy can be settled. The overwhelming proportion of the stock of money consists of checkable bank deposits. However, this public payment utility concerns only the relatively small Money Bank; the much larger Credit Bank is an entirely different issue. In other words, today most money is bank deposits, but most bank deposits are not money (they are investments).

Since 1933, the United States has issued national guarantees of bank deposits, which have come to represent (implicitly) the majority of the capital of the banking system. This public guarantee has not been limited to the stock of money, but has promiscuously covered the entire combination of both the Money Bank and the Credit Bank. The original confusion is understandable, since historically bank liabilities were predominantly demand deposits (i.e. money). But over time, in addition to guaranteeing money, the government has ended up as co-signer on the obligations of huge, risky, highly leveraged investment vehicles—it is now reaping the consequent staggering losses.

During the years of its deposit guarantee, the government has tried to protect itself by an ever-increasing volume of ever more complex regulation, requiring the matching growth of financial regulatory bureaucracies. Nothing is more apparent than the fact that this strategy has been an abject failure. So what do most commentators, especially regulators, journalists, professors, and politicians, suggest? More regulation and regulators. This is an interesting example of faith: a better conclusion is that the fundamental design conclusion is unworkable. A better fundamental design is that

stable liabilities for the Money Banks and the payments system can be ensured simply by enforcing collateral requirements to secure the stock of money.

As a real-world, working example of this principle, consider the stock of free credit balances in customers' accounts with securities brokers. Every securities broker is in part a bank: free credit balances in its customer accounts are equivalent to demand deposits. These balances are not guaranteed by the government. But under the Securities and Exchange Commission's Customer Protection Rule, segregated low-risk assets must be maintained against the net customer balances. The assets are a "special reserve account for the exclusive benefit of the customers," as specified in rule 15c3-3.

Under a collateralized money system, all money deposits would be collateralized under a rule analogous to the SEC's 15c3-3 or to the National Banking Act's security requirement for bank notes, requiring maintenance at all times of assets with a market value of at least 100% of the money liabilities. Every bank, while remaining one operating organization, would be understood and managed as what it in fact is: the dual functions of the Money Bank and the Credit Bank. These two functions do not need separate incorporation or separate organizations or complex holding company structures or bureaucratic agonizing over so-called "firewalls." They need their money deposits collateralized with high-quality, marketable assets (plus deposits with the Federal Reserve and demand deposits due from other commercial banks). This needs daily measurement, and like 15c3-3, making management responsible for immediate self-reporting of any shortfall. To be honest with the public, it would be advisable for only the money liabilities to be called "deposits."

The rest of the bank should then be free to pursue any business its wholly at-risk creditors will finance. These other 80% of bank liabilities should be called what they are, namely investments, notes, debentures, commercial paper, bonds, participations, etc. They are not money, and they should not be riskless. They should not have government guarantees or "insurance." The liabilities of the Credit Bank function need, like other investments offered to the public, appropriate disclosure of their nature and risks, and they should be subject to SEC requirements. Under any system, given the inherent tendency of credit markets to financial fragility and crisis, a Bagehotian lender of last resort to the market is necessary. It is also my view than an investor of last resort, like the Reconstruction Finance

Corporation, is temporarily required from time to time (say every fifty years or so).

Collateralized money is a very old banking idea, discussed in the last few years as "narrow-banking" but fifty years ago as "100% reserves" and one hundred years before that as an element of "free banking." Most importantly in institutional history, it is the foundation idea of the National Banking Act of 1864—the original title of which was "An Act to Provide a National Currency Secured by a Pledge of United States Bonds." Its conceptual history goes back at least to an essay by David Ricardo in 1816. This idea will undoubtedly work: it is no mere theory. One particular class of bank deposits, namely those of municipal bodies, is collateralized today on a normal, ongoing basis. The National Banking Act (and numerous state banking laws going back to the New York State Act of 1838 on which it was modeled) created working banking systems based on collateralized bank money. No holder of national bank notes ever suffered a loss. This long-standing logic applies with equal validity to bank deposits used as money.

A particularly apt historical case is the Louisiana Bank Act of 1842, which required short-term, high quality assets equal to the total amount of notes in circulation plus deposits. It measured these matching assets and liabilities separately as what it called the "movement" of banks. Other, riskier assets it gave the insidious name of "dead weight." The result was that the banks of New Orleans not only survived the nationwide panic of 1856 but, according to the financial historian Bray Hammond, "operated with distinguished success." He comments that the Louisiana Act "seems to me in substance the wisest adoption of practice to environment in any banking law I know."

Required collateralization of the bank liabilities that serve as money would imply an enormous improvement in the nature of the banking system but would not require different charters, "breaking up banks," designing "fire-walls," or any other dubious bureaucracy.

It is easy to predict that the many parties who receive subsidies distributed to or through the banking system based on deposit insurance, as well as those who enjoy the rents from government-organized financial cartels, will naturally oppose the collateralized money approach. Those will favor it who desire to put under the strictest control that which should be controlled (i.e. money), and subject to free competition that which should have market discipline of its price and allocation (i.e. credit).

I believe collateralized money is the optimal banking system idea, considering both history and theory. But whatever one may think of a specific proposal, the long-term development we have examined of an increasingly risky and more fragile banking system suggests that fundamental restructuring is required. We may repeat for our own day what Woodrow Wilson wrote in 1912: "Waiting to be solved...lurks the great question of banking reform."

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